



Tropical Update



1:30 PM EDT

Wednesday, September 25, 2024

Helene Becomes a Hurricane & Florida Outlook

**Hurricane Warnings For Florida Big Bend and Gulf Coast;
Tropical Storm Warnings Through the Peninsula and Keys;
Impacts Well Beyond the Center**

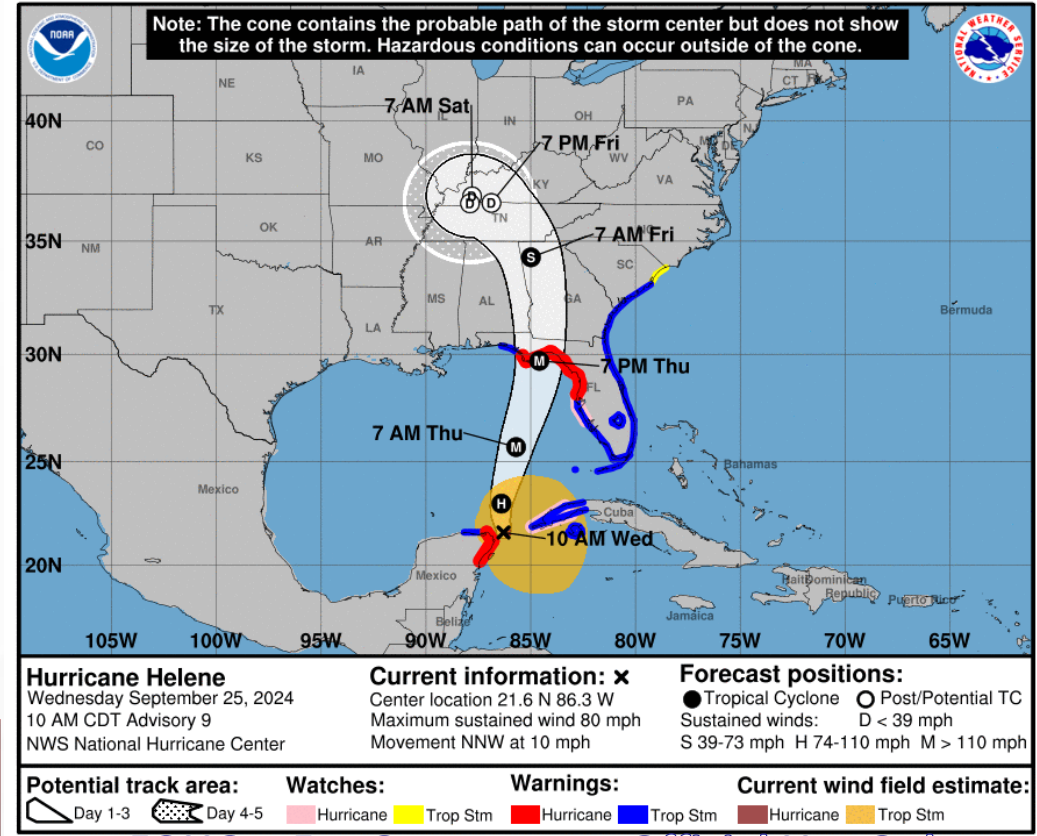
This update is intended for government and emergency response officials, and is provided for informational and situational awareness purposes only. Forecast conditions are subject to change based on a variety of environmental factors. For additional information, or for any life safety concerns with an 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.



Hurricane Helene

11:00 AM EDT Wednesday: Florida Threats & Changes Since Last Packet

	MINIMAL	Low	MODERATE	HIGH	EXTREME
WINDS					
STORM SURGE					
FLASH FLOODING					
TORNADOES					
	Low		MODERATE		HIGH
RIP CURRENTS					



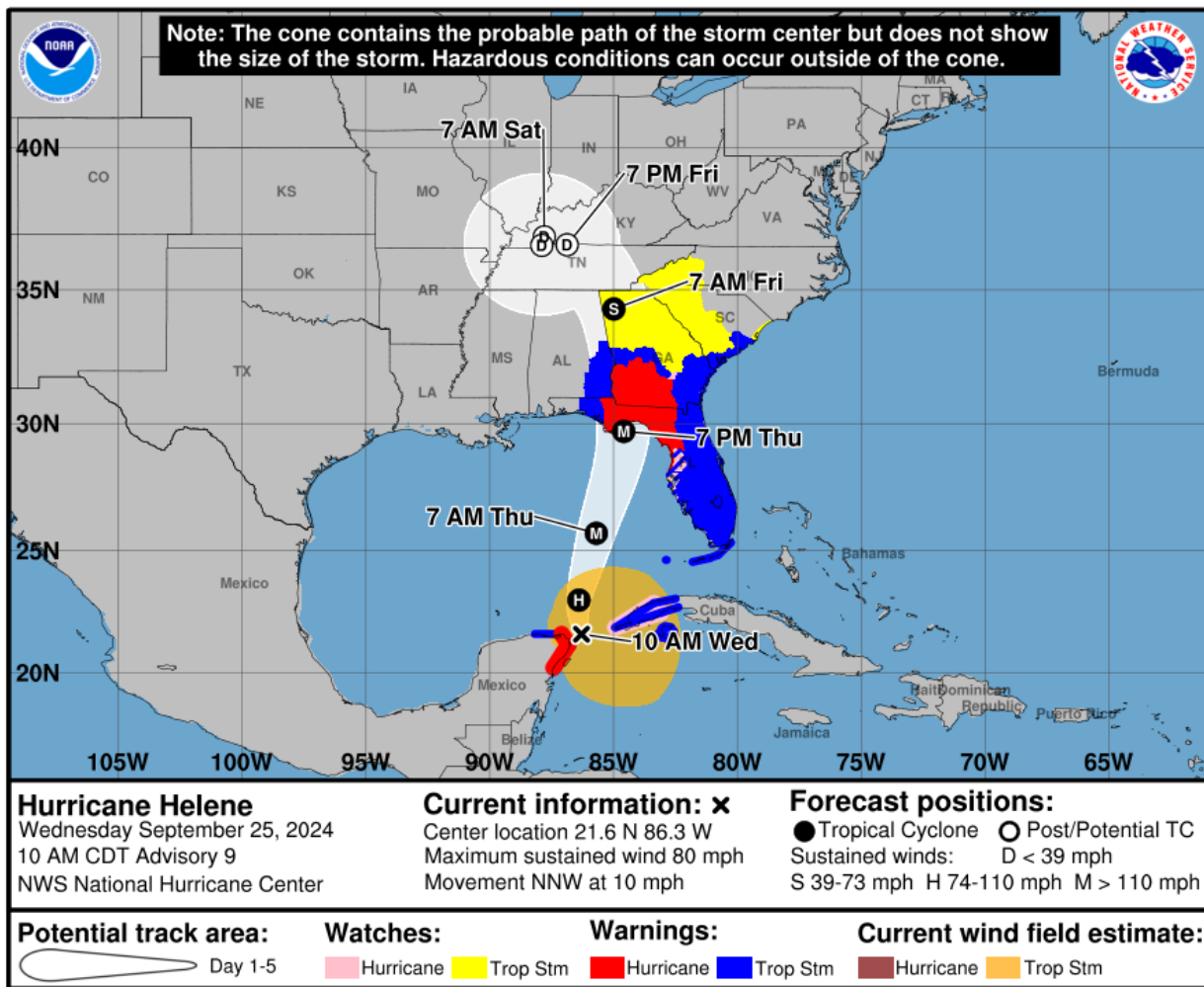
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Overview/Recent Changes: As of 11:00 AM EDT, Hurricane Helene is located about 85 miles north-northeast of Cozumel, Mexico and about 500 miles south-southwest of Tampa, Florida and moving north-northwestward at 10 mph. A turn toward the north and north-northeast with an increase in forward speed is expected later today through Thursday, bringing the center of Helene across the eastern Gulf of Mexico and to the Florida Big Bend coast by Thursday evening. After landfall, Helene is expected to slow down and turn toward the northwest over the southeastern U.S. Friday and Saturday. Data from NOAA and Air Force Reserve Hurricane Hunter Aircraft indicate that maximum sustained winds have increased to near 80 mph with higher gusts. Additional strengthening is forecast, and Helene is expected to be a major hurricane when it reaches the Florida Big Bend coast Thursday evening. Weakening is expected after landfall, but Helene's fast forward speed will allow for strong, damaging winds, especially in gusts, to penetrate well inland across the southeastern U.S., including over the higher terrain of the southern Appalachians. A Tropical Storm Warning has been extended along the Florida Gulf Coast to the Okaloosa/Walton County Line. A Storm Surge Watch has been issued from Mexico Beach to Indian Pass.



Hurricane Helene

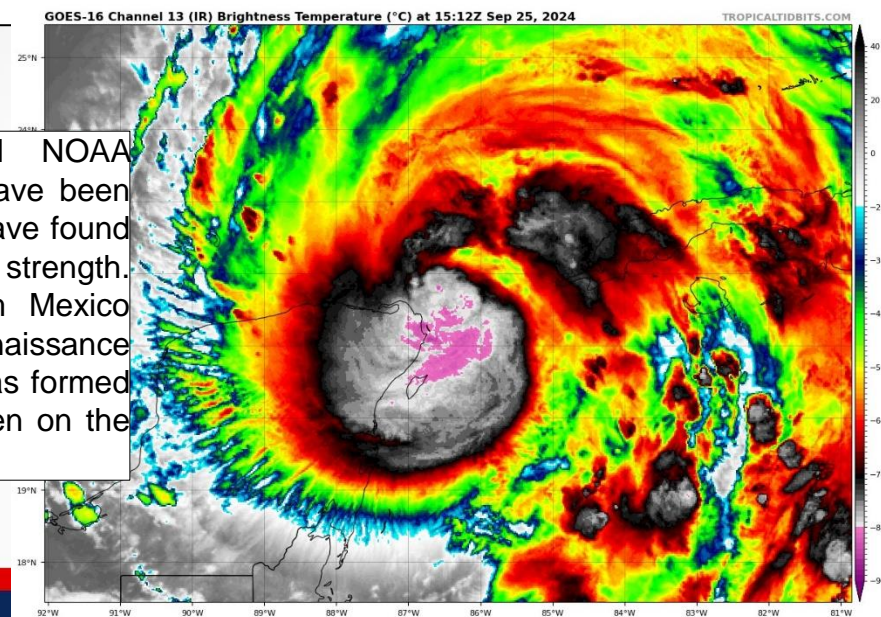
From the National Hurricane Center (NHC)



- **Location:** 85 miles NNE of Cozumel, Mexico; 500 miles SSW of Tampa, Florida
- **Maximum Sustained Winds:** 80 mph; Category 1
- **Current Movement:** NNW at 10 mph

A turn toward the north and north-northeast with an increase in forward speed is expected later today through Thursday, bringing the center of Helene across the eastern Gulf of Mexico and to the Florida Big Bend coast by Thursday evening. After landfall, Helene is expected to slow down and turn toward the northwest over the southeastern U.S. Friday and Saturday. Additional strengthening is expected to be a major hurricane when it reaches the Florida Big Bend coast Thursday evening. Weakening is expected after landfall, but Helene's fast forward speed will allow strong, damaging winds, especially in gusts, to penetrate well inland across the southeastern U.S.

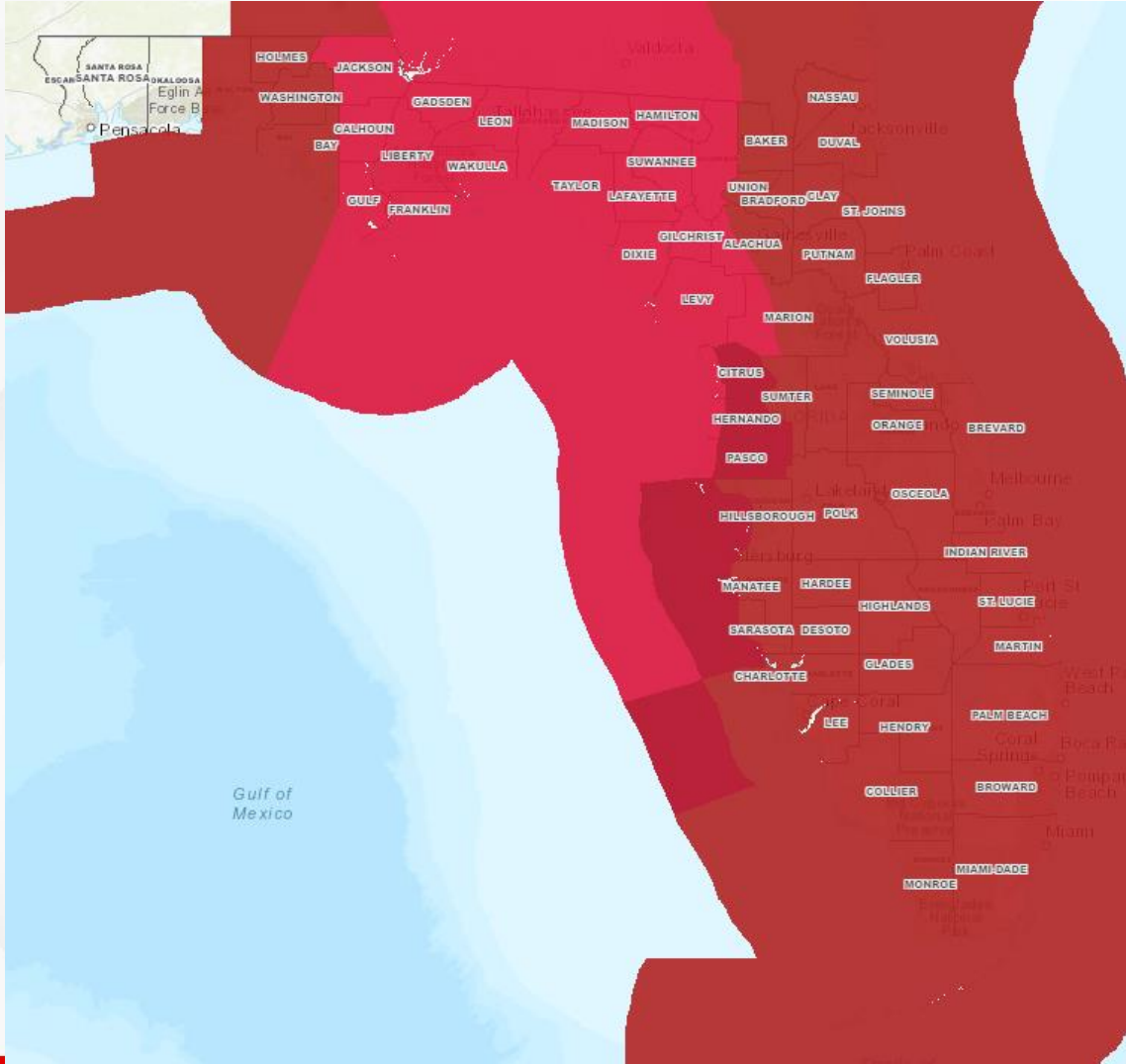
Air Force Reserve and NOAA Hurricane Hunter aircraft have been investigating Helene, and have found winds of category 1 strength. Additional radar data from Mexico and Cuba, as well as reconnaissance reports, indicates Helene has formed a partial eyewall that is open on the east side.





Current Tropical Wind Watches/Warnings

As of 11:00 PM EDT Wednesday



- **Hurricane Warning:**

Jackson, Calhoun, Gulf, Gadsden, Liberty, Franklin, Leon, Wakulla, Jefferson, Madison, Taylor, Hamilton, Suwannee, Lafayette, Columbia, Gilchrist, Dixie, western Alachua, Levy, western Marion, coastal Citrus, coastal Hernando, coastal Pasco

- **Tropical Storm Warning:**

Walton, Holmes, Washington, Bay, Baker, Nassau, Duval, Union, Bradford, Clay, St. Johns, eastern Alachua, Putnam, Flagler, eastern Marion, Volusia, inland Citrus, Sumter, Lake, Seminole, Brevard, Orange, inland Hernando, inland Pasco, Pinellas, Hillsborough, Polk, Osceola, Indian River, Manatee, Hardee, Highlands, Okeechobee, St. Lucie, Martin, Glades, DeSoto, Sarasota, Charlotte, Palm Beach, Hendry, Lee, Collier, Broward, Miami-Dade, Monroe

- **Hurricane Watches:**

Inland Citrus, inland Hernando, inland Pasco, Pinellas, coastal Hillsborough, coastal Manatee, coastal Sarasota



Key Messages

From the National Hurricane Center (NHC)



Key Messages for Hurricane Helene

Advisory 9: 10:00 AM CDT Wed Sep 25, 2024

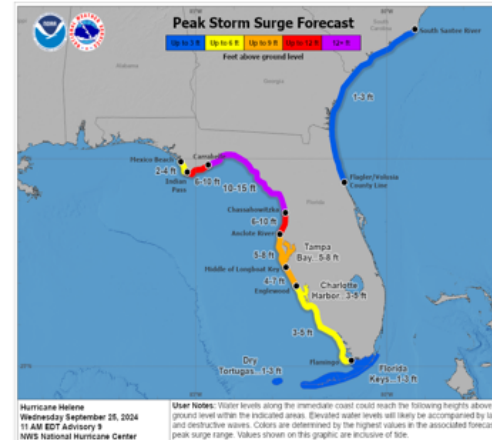
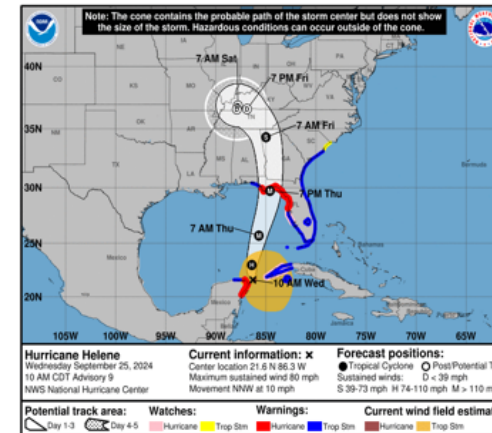


1. Hurricane and tropical storm conditions are expected over northeastern portions of the Yucatan Peninsula of Mexico today where Tropical Storm and Hurricane Warnings are in effect. Tropical storm conditions are occurring over portions of western Cuba within the Tropical Storm Warning area, and hurricane conditions are possible today within the Hurricane Watch area.

2. Due to the large size of Helene, there is a danger of life-threatening storm surge along the entire west coast of the Florida Peninsula and Florida Big Bend. The highest inundation of greater than 10 ft is expected along the Florida Big Bend coast. Residents in those areas should follow advice given by local officials and evacuate if told to do so.

3. Devastating hurricane-force winds are expected across portions of northern Florida and southern Georgia where the core of Helene moves inland. Preparations to protect life and property should be completed by early Thursday since tropical storm conditions are expected to begin within these areas on Thursday. Because of Helene's expected fast forward speed, damaging and life-threatening wind gusts, are expected to penetrate well inland over portions of the southeastern United States, including in the higher terrain of the southern Appalachians.

4. Helene will bring heavy rain to portions of the western Caribbean with potentially significant flooding across western Cuba and the northeastern Yucatan Peninsula into early Thursday. Considerable and potentially life-threatening flash and urban flooding is expected across portions of northwestern and northern Florida, the Southeast, southern Appalachians, and the Upper Tennessee Valley Wednesday through Friday. This includes the risk of landslides across the southern Appalachians. Widespread minor to moderate river flooding is likely, and isolated major river flooding is possible.



For more information go to hurricanes.gov

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Threats & Impacts

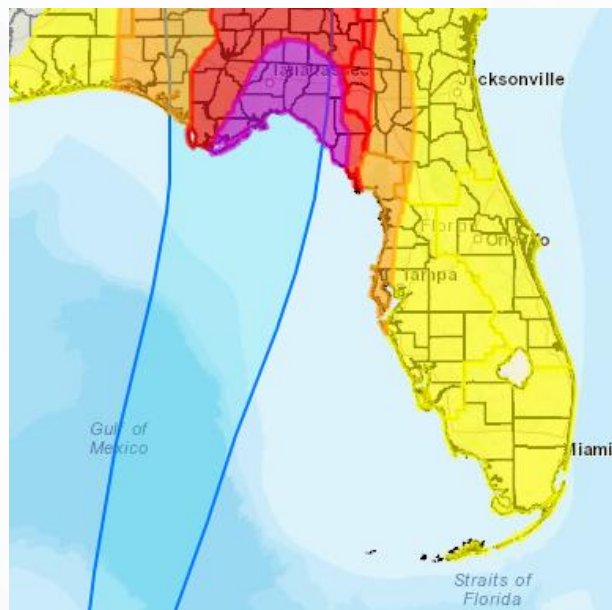
From the National Weather Service

Storm Surge



- Widespread deep inundation, with storm surge flooding greatly accentuated by powerful battering waves. Structural damage to buildings, with many washing away. Damage greatly compounded from considerable floating debris. Locations may be uninhabitable for an extended period.
- Near-shore escape routes and secondary roads washed out or severely flooded. Flood control systems and barriers may become stressed.
- Extreme beach erosion. New shoreline cuts possible.
- Massive damage to marinas, docks, boardwalks, and piers. Numerous small craft broken away from moorings with many lifted onshore and stranded.

Wind



- Structural damage to sturdy buildings, some with complete roof and wall failures. Complete destruction of mobile homes. Damage greatly accentuated by large airborne projectiles. Locations may be uninhabitable for weeks or months.
- Numerous large trees snapped or uprooted along with fences and roadway signs blown over.
- Many roads impassable from large debris, and more within urban or heavily wooded places. Many bridges, causeways, and access routes impassable.
- Widespread power and communications outages.

Flooding



- Major rainfall flooding may prompt many evacuations and rescues.
- Rivers and tributaries may rapidly overflow their banks in multiple places. Small streams, creeks, and ditches may become dangerous rivers. Flood control systems and barriers may become stressed.
- Flood waters can enter many structures within multiple communities, some structures becoming uninhabitable or washed away. Many places where flood waters may cover escape routes. Streets and parking lots become rivers of moving water with underpasses submerged. Driving conditions become dangerous. Many road and bridge closures with some weakened or washed out.

Tornadoes

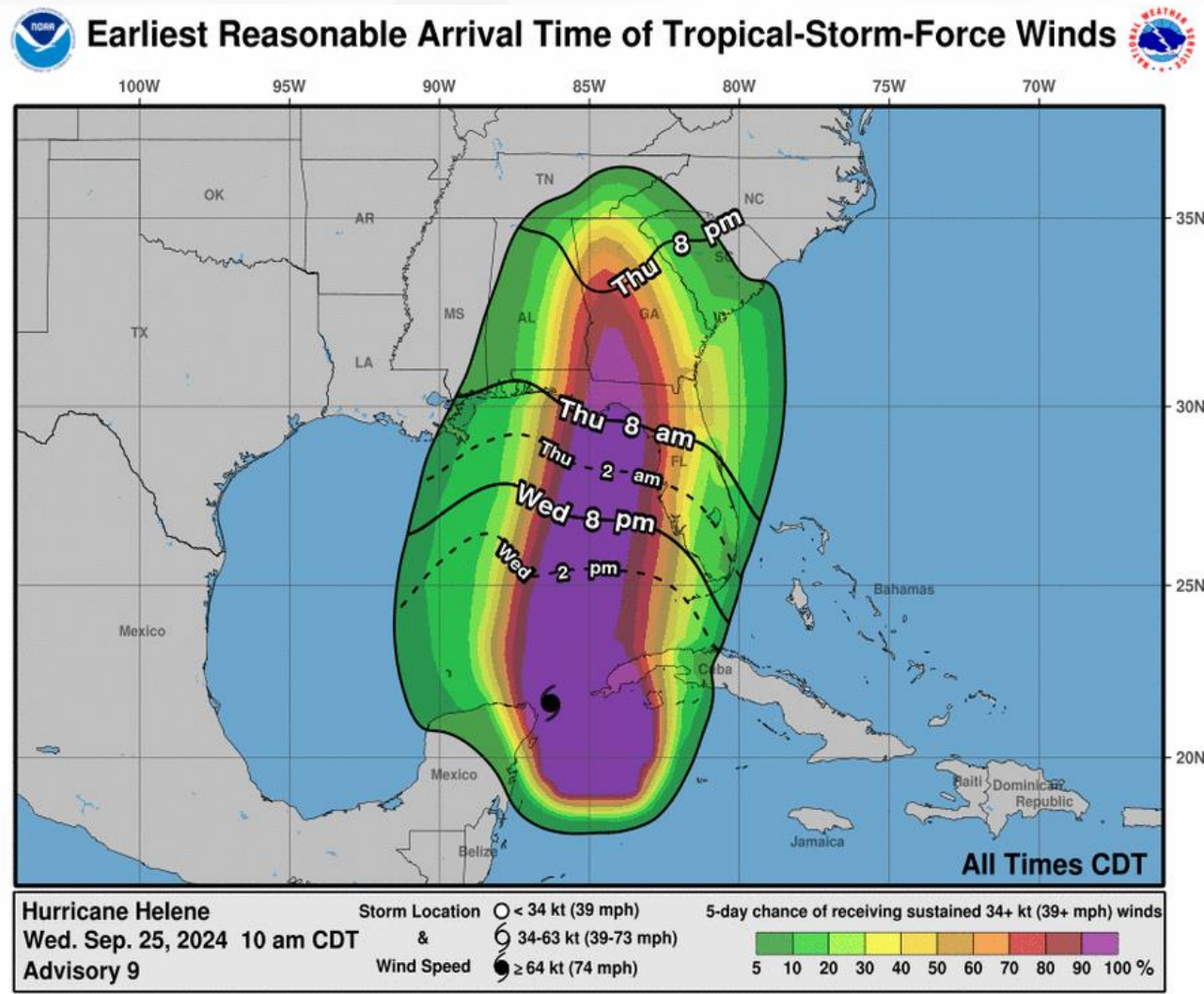


- The occurrence of scattered tornadoes can hinder the execution of emergency plans during tropical events.
- Several places may experience tornado damage with a few spots of considerable damage, power loss, and communications failures.
- Locations could realize roofs torn off frame houses, mobile homes demolished, boxcars overturned, large trees snapped or uprooted, vehicles tumbled, and small boats tossed about. Dangerous projectiles can add to the toll.



Tropical Storm-Force Wind Probabilities

Hurricane Helene



As Hurricane Helene moves into the eastern Gulf of Mexico, tropical storm-force conditions are likely to arrive along the Florida Keys and South Florida overnight Wednesday and into the early pre-dawn hours. The forecast quick forward motion of Helene will allow for deteriorating conditions quickly. During the predawn hours and into the morning on Thursday, tropical storm-force winds will mostly likely arrive along the West-Central and western I-4 corridor. Deteriorating conditions and the quick forward motion will allow for tropical storm-force winds to most likely arrive across the Florida Big Bend during the afternoon and early evening hours, then extend towards the I-10 corridor into the evening hours.

However, tropical-storm force conditions may begin as early as Wednesday evening along the Southwest Florida coast and through South Florida overnight. Along the West-Central and Nature Coast, as well as the western Peninsula, tropical storm-force winds could begin as early as overnight Thursday and into the predawn hours. The Florida Big Bend could see tropical storm-force winds as early as Thursday morning.

Wind speed probabilities will likely continue to increase in future packets as the eventual forecast track and intensity forecast become realized.

City	Tropical Storm-Force Wind Probability
Key West	35% (+8%)
Naples	45% (+5%)
Miami	7% (+/-0)
Fort Myers	34% (+10%)
Tampa	73% (+4%)
Cedar Key	86% (+5%)
Cocoa Beach	30% (+4%)
Orlando	27% (+9%)
Gainesville	66% (+18%)
Tallahassee	95% (+9%)
Jacksonville	42% (+13%)
Apalachicola	95% (+4%)
Panama City	83% (+8%)
Pensacola	21% (+10%)



Hurricane-Force Wind Probabilities

Hurricane Helene



The additional strengthening and intensification of Hurricane Helene will allow for hurricane-force winds throughout the Florida Big Bend and extending along the Panhandle as well as Nature Coast and along the West-Central Florida coast.

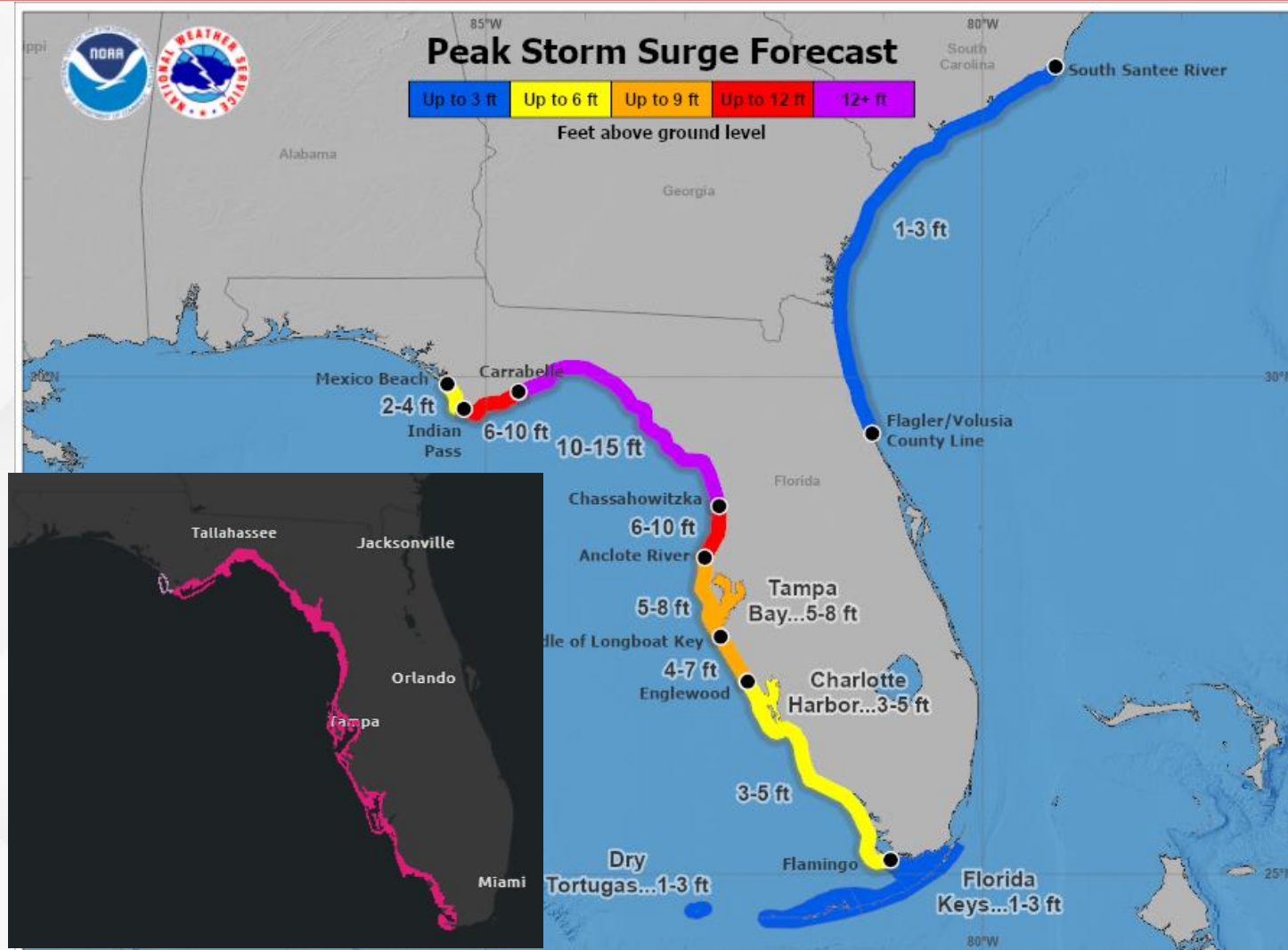
Wind speed probabilities will likely continue to increase in future packets as the eventual forecast track and intensity forecast become realized.

City	Strong Tropical Storm-Force Wind Probability
Tampa	2%
Cedar Key	13%
St. Marks	43%
Apalachicola	64%
Panama City	33%
Tallahassee	37%



Current Storm Surge Watch

As of 11:00 AM EDT Wednesday



Based on the forecast size, forward motion and intensity of Tropical Storm Helene, **peak storm surge of 10-15'** is possible for much of the Florida Big Bend and extending towards the northern Nature Coast. Throughout the rest of the Big Bend from Indian Pass to the Anclote River, **storm surge of 6-10'** is possible. Across the West-Central Florida Coast, including Tampa Bay, **storm surge of 4-8'** is possible, with **2-5' possible storm surge** along the Southwest Florida Coast. Storm surge values were upgraded to **2-4'** along Mexico Beach to Indian Pass. 1-3' peak storm surge is now forecast along the Northeast Coast from the Florida-Georgia line southward to the Flagler/Volusia County Line.

A **Storm Surge Warning** is in effect along the entire Florida Big Bend and West Coast through Southwest Florida. A **Storm Surge Watch** is in effect from Mexico Beach to Indian Pass.

Hurricane Helene
Wednesday September 25, 2024
11 AM EDT Advisory 9
NWS National Hurricane Center

User Notes: Water levels along the immediate coast could reach the following heights above ground level within the indicated areas. Elevated water levels will likely be accompanied by large and destructive waves. Colors are determined by the highest values in the associated forecast peak surge range. Values shown on this graphic are inclusive of tide.



Rip Current Risk - Today

From the National Weather Service (NWS)



Onshore winds and increasing surf will create a **moderate to high risk for rip currents** along the Florida East Coast. Numerous beaches along the Panhandle can be expect a **moderate to high risk rip currents** as hazardous conditions will continue to develop over the next couple of days as Hurricane Helene moves into the eastern Gulf of Mexico. By later today, an **elevated risk for rip currents** can be expected to extend along the entire Gulf Coast. A **high risk for rip currents** can be expected nearly statewide later today through the latter portions of the week.

FL Panhandle

	Today	Thu	Fri	Sat	Sun
Rip Current					
Marine Hazard					



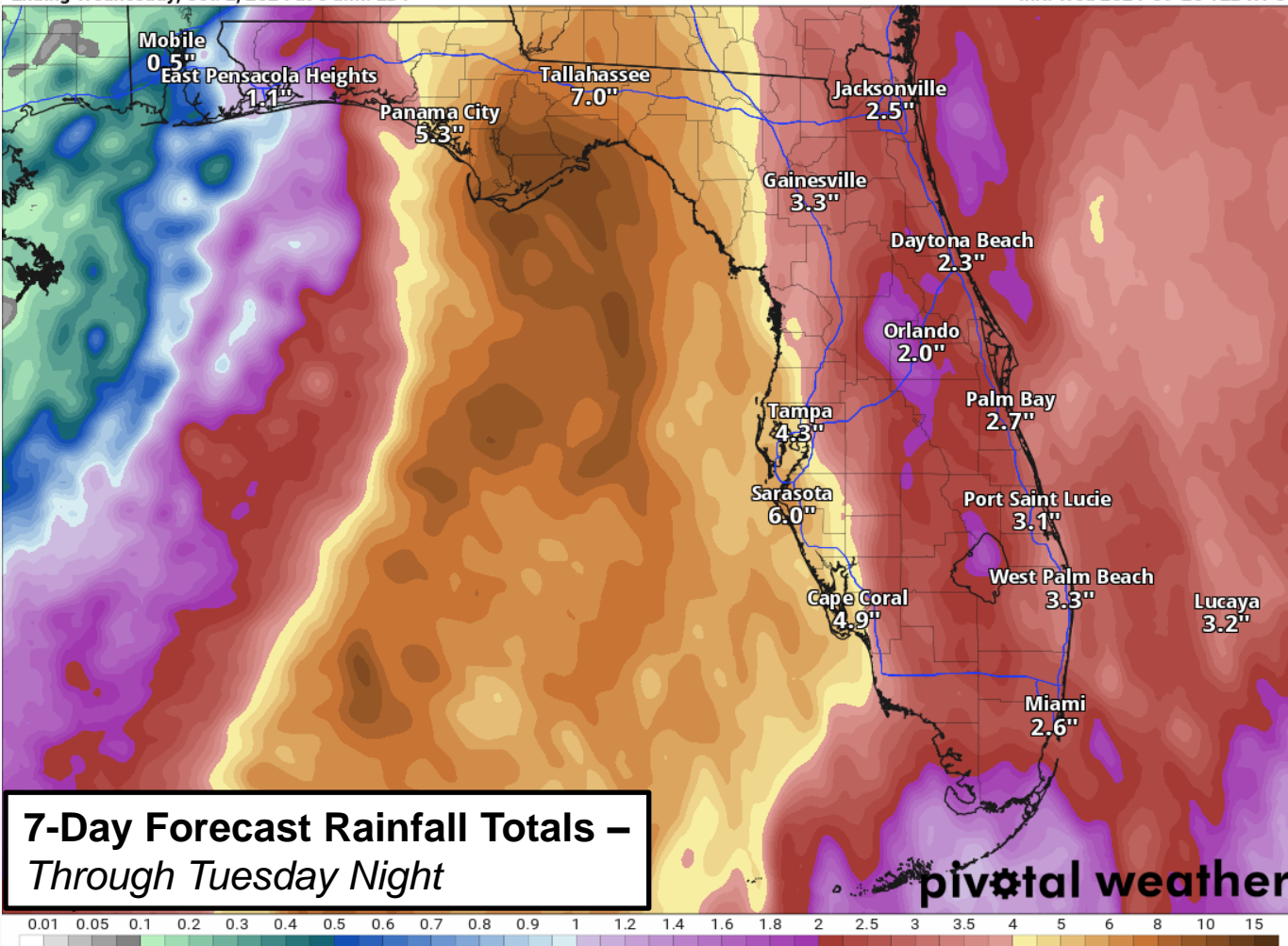
Rainfall Totals – Next 7 Days

From the Weather Prediction Center (WPC)

7-Day Precipitation (in)

Ending Wednesday, Oct. 2, 2024 at 8 a.m. EDT

Init: Wed 2024-09-25 12z WPC

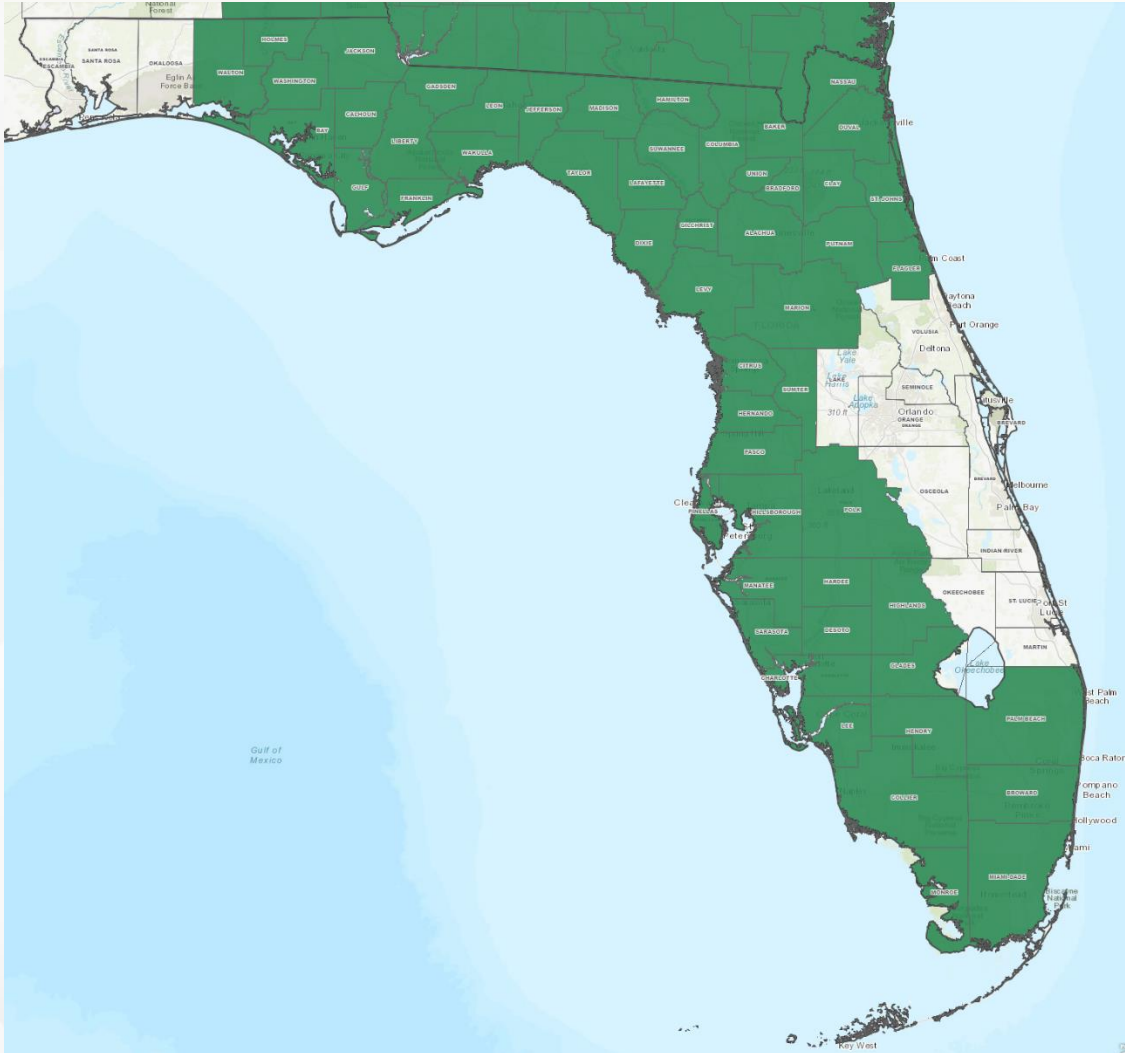


- South Florida and the Keys have begun to feel the outer influences of Hurricane Helene as the system pushes northward across the northwestern Caribbean Sea and pulls deep tropical moisture northward. A few outer bands from Helene will likely move across South and South-Central Florida and the Keys today with breaks of sunshine in between.
- As Helene moves through the northwestern Caribbean and towards the southern Gulf of Mexico, tropical moisture will push northward through the state today and Thursday.
- Increasing rain chances can be expected along to increase from south to north along the Peninsula, then extend into northeastern Gulf of Mexico.
- *Rainfall totals heavily tied to the eventual track and forward speed of the system. With computer model guidance uncertainty regarding the exact track, there remains uncertainty as to where the heaviest rainfall can be expected.*
- Widespread rainfall totals of 2-4" can be expected across the state through the next 7 days, with locally higher totals upwards of 6-10" along the Panhandle and immediate Gulf Coast. Localized instances upwards of 12-15" cannot be ruled out along portions of the western coastal Big Bend.



Flood Watch

From the National Weather Service (NWS)



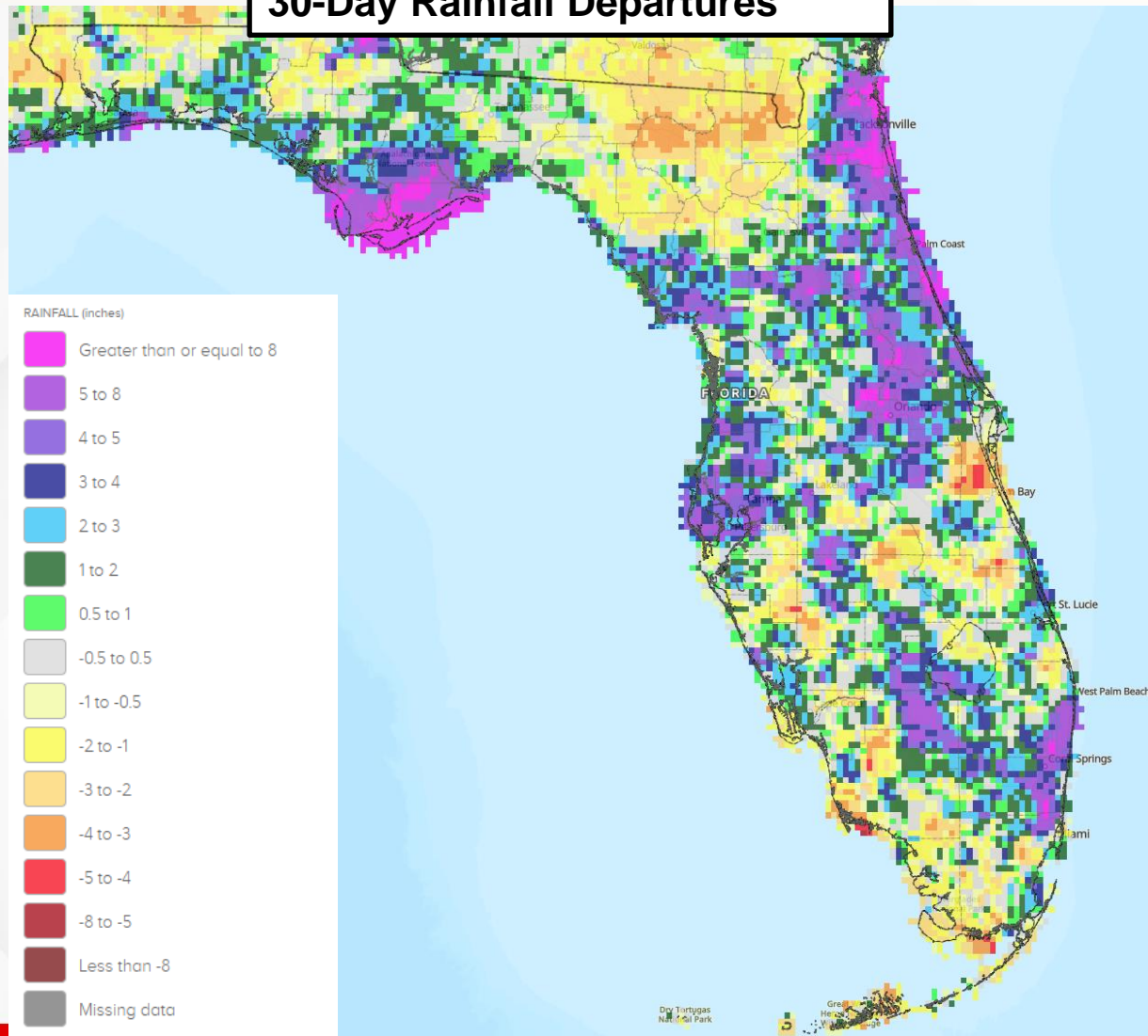
- **Flood Watches** have been issued across much of North Florida, West-Central Florida, and South Florida as tropical downpours associated with Hurricane Helene could bring instances of **localized flooding** beginning today.
- **Moderate to heavy rainfall** is expected with this system, which could lead to instances of localized flash flooding.
- With recently saturated grounds and soils, additional heavy rainfall across low-lying/poor drainage areas could **exacerbate the potential for localized flooding**.
- As well, with elevated water levels along the coast and extending into rivers and creeks along the coast due to storm surge, heavy rainfall over surrounding areas could **slow the rate of heavy rainfall depositing into system and running off** towards the gulf waters. This may also exacerbate potential flooding concerns.



Rainfall Departures – 30 Days

How Saturated Are Our Soils?

30-Day Rainfall Departures

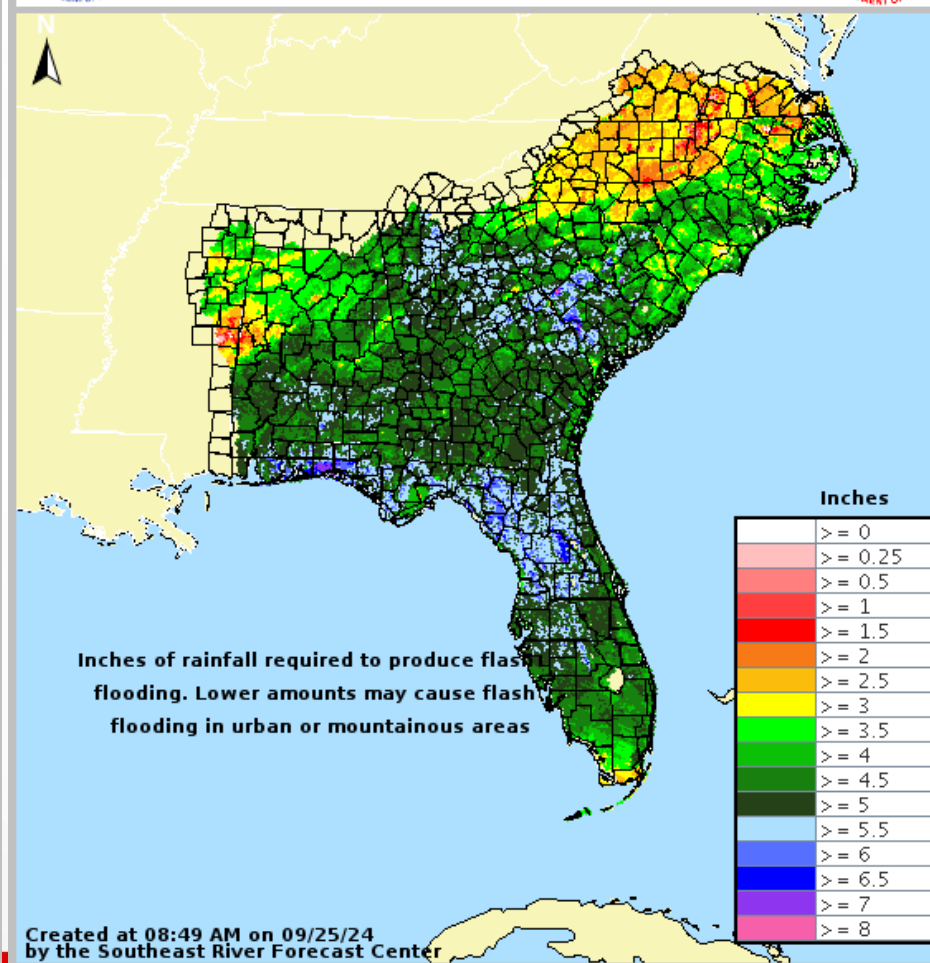
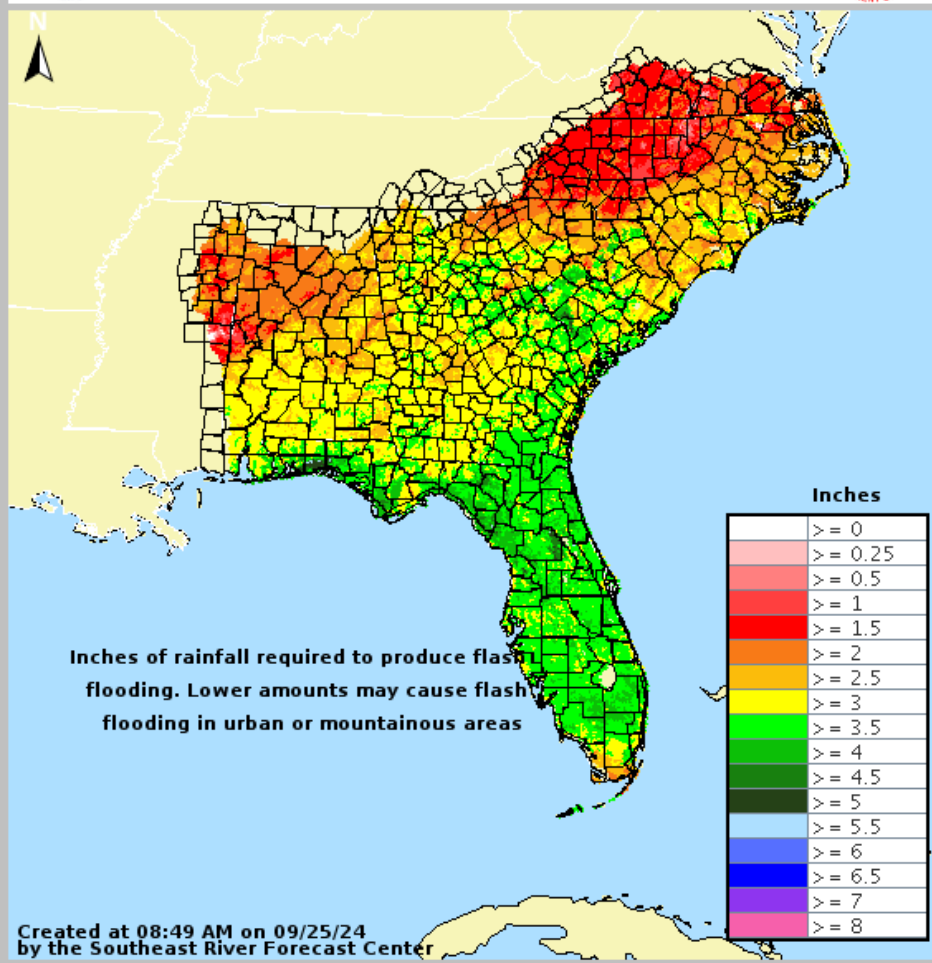


- Coastal portions of the Panhandle and south of the I-10 corridor are 5-8" above normal for rainfall from the last 30-days. This would increase the potential for onset flooding with additional heavy rainfall over the region.
- *Recent heavy rainfall over the Panhandle has allow for rises within water levels, but all rivers, creeks and waterways are currently below flood stage.*
- Interior portions of the Panhandle and Big Bend have seen below normal rainfall totals of 2-4" over the last 30-days.



Flash Flood Guidance

How Much Rain is Needed to Create Flash Flooding?

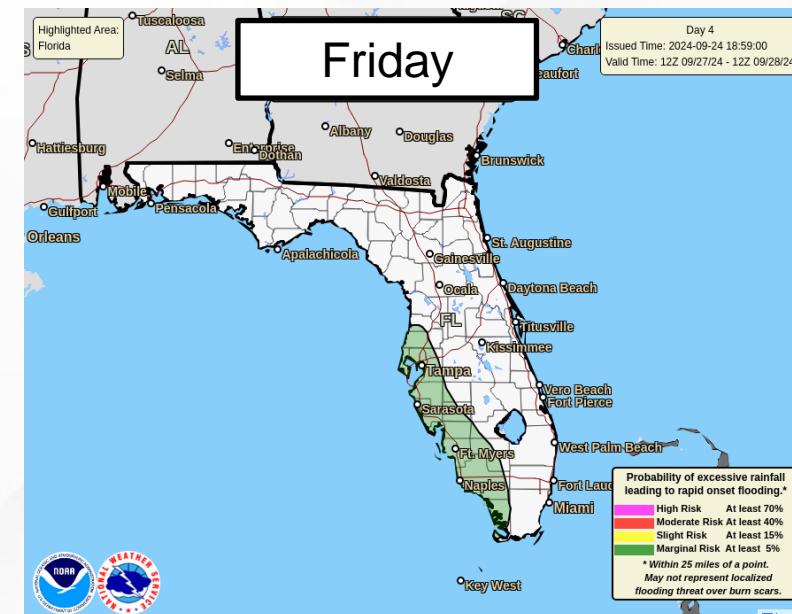
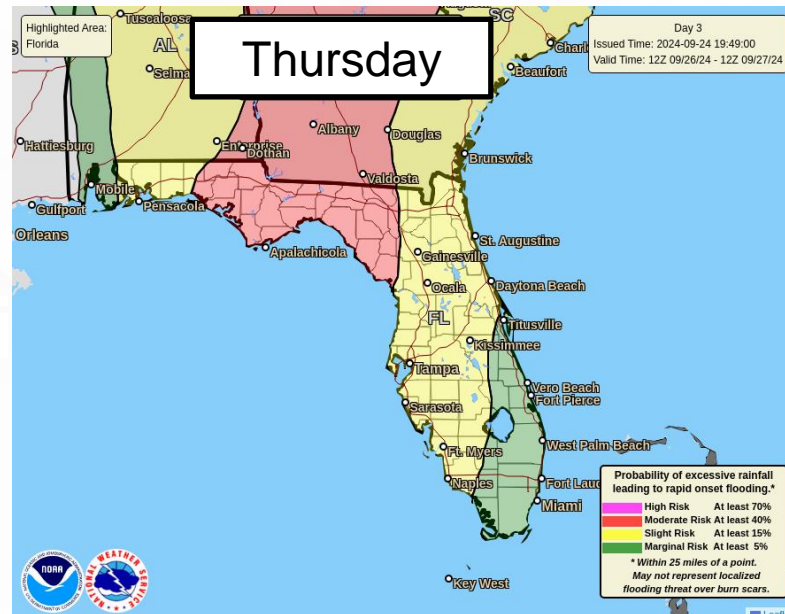
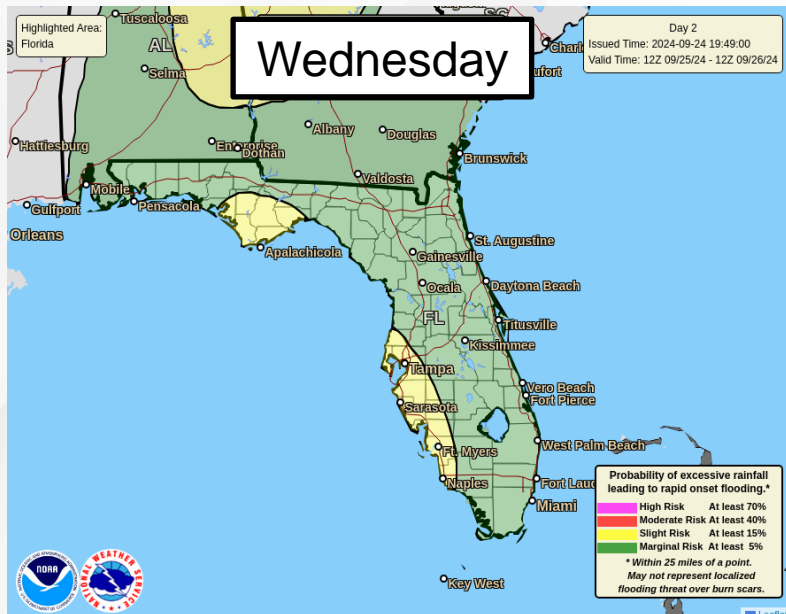


- Along the coastal Panhandle and Big Bend and into the interior Suwannee Valley, it would take 3-4" within an hours or 4-6" within 6 hours to cause flash flooding with some of the already saturated grounds and soils.
- Similarly, along the western Peninsula and, it would take about 3-4" within an hour or 4-6" within 6 hours.



Flash Flood Outlook

From the Weather Prediction Center (WPC)



The Weather Prediction Center (WPC) is outlooking a **Slight Risk (level 2 of 4) for Flash Flooding** along the southern Apalachicola River and towards the coast, with **Marginal Risk (level 1 of 4) for Flash Flooding** today across the Florida Panhandle extending along the West Coast and through South Florida as outer rainbands from this system will begin to bring heavy rainfall as Hurricane Helene moves over the eastern Gulf of Mexico. As Hurricane Helene approaches the northeastern Gulf of Mexico and towards the Florida Big Bend on Thursday, tropical downpours can be expected nearly statewide due to the large size of this system. The Weather Prediction Center (WPC) is outlooking a **Moderate Risk (level 3 of 4) for Flash Flooding** across the Florida Big Bend and extending into the eastern Florida Panhandle on Thursday, with a **Slight Risk (level 2 of 4)** across the rest of the Panhandle and along the I-75 corridor along the West Coast. A **Marginal Risk (level 1 of 4)** extends statewide on Thursday as hazards will likely extend well away from the center. Regardless, tropical downpours and multiple rounds of rainfall may be possible that lead to **instances of flash flooding** as the system moves into the southeastern Gulf of Mexico, especially with potentially training showers and thunderstorms over the same areas and moving onshore. There is a **Marginal Risk (level 1 of 4) for Flash Flooding** on Friday as well along West-Central and Southwest Florida.

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
www.wpc.ncep.noaa.gov @NWSWPC	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.



Coastal Flooding Continues

From the National Weather Service (NWS)



A **Coastal Flood Warning** are in effect along the Florida Keys until Thursday night as **major saltwater flooding of 1-3'** above normally dry ground is possible, especially near and during times of high tide from Hurricane Helene.

Coastal Flood Warnings extend along the Florida Northeast Coast as **saltwater flooding of 1-3' is possible**, with locally higher totals upwards of 4' due to winds from Hurricane Helene.

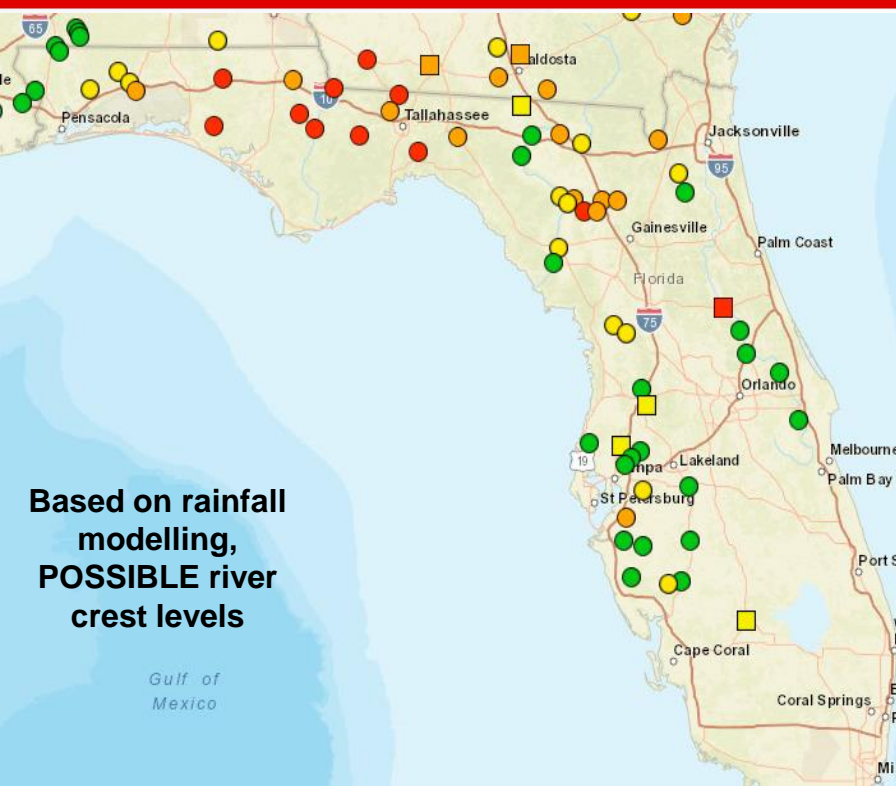
Due to compounding effects of lingering runoff from recent heavy rainfall, onshore flow, and recent high astronomical tides (King tides) courtesy of the recent Full Moon, **minor coastal flooding** can be expected along the St. Johns River through the middle of the week. A **Coastal Flood Advisory** remains in effect throughout the basin and along the Intracoastal Waterway and Atlantic Coast.

Minor beach erosion cannot be ruled out at times near and during times of high tide along the East Coast, especially for vulnerable beaches.

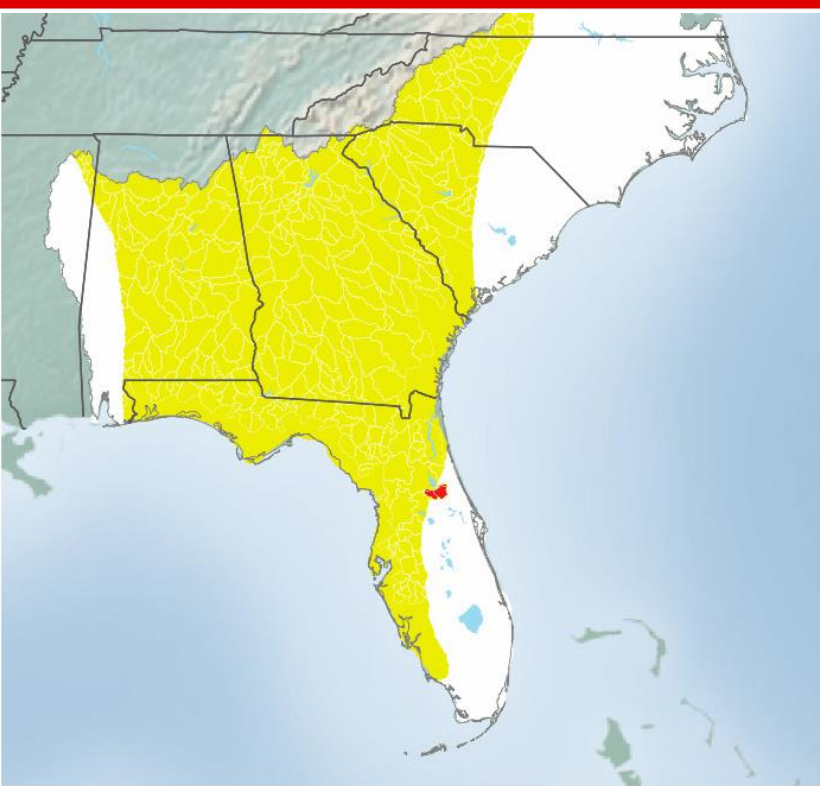


Riverine Flooding

Chance of River Flooding Based on Range of Forecast Rainfall



Based on rainfall modelling, **POSSIBLE** river crest levels



Rivers, creeks/streams, and waterways across North Florida are already running above normal for this time of year. Computer forecast models are indicating the potential for **minor to moderate flooding** along several mainstems and branches including the Apalachicola, Ochlockonee, Santa Fe, Myakka, Manatee, and Alafia by next week.

Riverine flooding will be closely tied to which basin receives the greatest swath of rainfall. Trends will continue to be monitored.

Chance of Exceedance		
30%	Level	70%
	Action	
	Minor Flood	
	Moderate Flood	
	Major Flood	
= less than 30% chance of reaching Action level		

National Weather Service
Peachtree City, GA
09/24/2024 11:43 AM EDT

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Significant River Flooding Not Expected

Significant River Flooding Possible
Weather conditions indicate, without certainty that significant river flooding could occur

Significant River Flooding Likely
Weather conditions indicate that significant river flood conditions can be expected

Significant River Flooding Occurring
Significant river flooding is occurring at this time



River Flood Warnings

From the National Weather Service

River Guage	County(ies) Affected	Current Level	Crest Level	Record Level	Status	Crest Date	Warning Expires
Alafia River at Riverview near US 301	Hillsborough	Below: 2.58 ft	Major: 7.00 ft	6.60 ft	Rising	26-Sep	0948 EDT 27-Sep
St. Johns River at Astor	Volusia, Lake	Minor: 2.96 ft	Moderate: 3.10 ft	4.70 ft	Steady	26-Sep	Until Further Notice
St. Mary's River near Macclenny	Baker, Nassau	Below: 5.30 ft	Minor: 12.50 ft	24.40 ft	Falling	27-Sep	0000 EDT 28-Sep

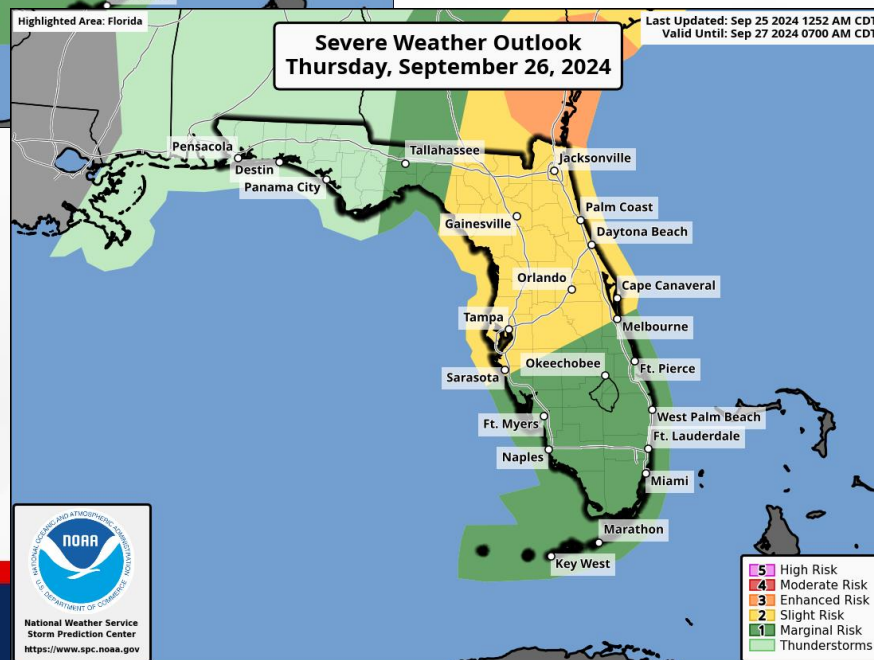
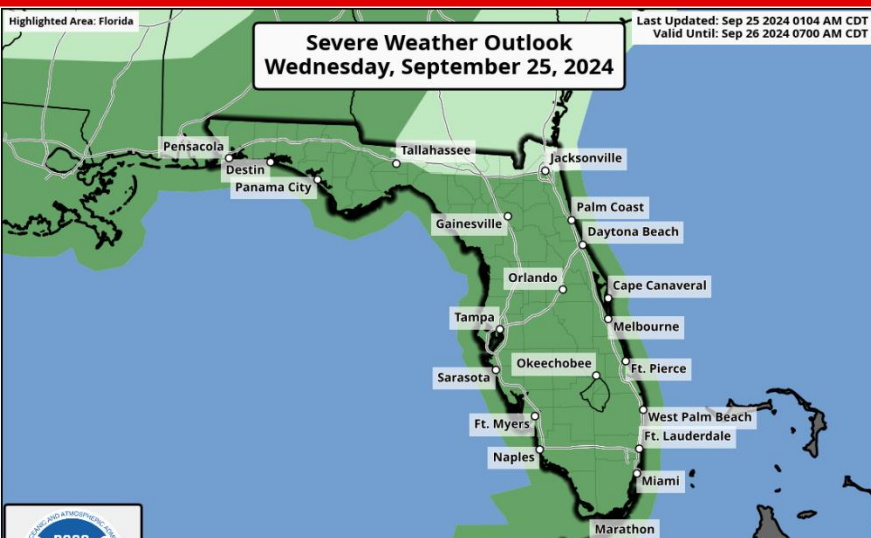
A **River Flood Warning** remain in effect in the [St. Johns River at Astor](#) as water levels are holding steady within **minor flood stage** just below the line for **moderate flood stage** due to trapped tides within the river basin. Water levels are forecast to rise back into **moderate flood stage** in the next few days in response to heavy rainfall across the basin and elevated tides and ocean swells preventing these waters from discharging. Additional forecast points along the St. Johns River are forecast to remain near or within Action Stage (bank-full) due to recent heavy rainfall over the area; however, river flooding is not anticipated at this time. Tidal portions of the lower St. Johns River could fluctuate in between Action and **minor flood stage** due to tide fluctuations. A **River Flood Warning** has been issued for the [Alafia River at Riverview near US 301](#) as **major flooding** is forecast due to tidal fluctuations and anticipated storm surge associated with Hurricane Helene. A **River Flood Warning** has been issued for the [St. Mary's River near Macclenny](#) as water levels are forecast to rise into **minor flood stage** later this week. Additional **River Flood Warnings** will likely be issued later this week and this weekend as heavy rainfall expected from Hurricane Helene is observed across the state; however, Riverine flooding will be closely tied to which basin receives the greatest swath of rainfall. Trends will continue to be monitored. For more details, please visit the [River Forecast Center](#).

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Tropical Tornadoes

From the Storm Prediction Center (SPC)



- The Storm Prediction Center (SPC) is outlooking a **Marginal Risk (level 1 of 5) for Severe Weather** across much of the state today.
- A **Slight Risk (level 2 of 5) for Severe Weather** is being outlooked on Thursday across the Northern Peninsula south of the I-4 corridor towards Lake Okeechobee. A **Marginal Risk (level 1 of 4)** extends from the Capital City through the Florida Keys.
- **Isolated tropical tornadoes** are possible within outer bands of Hurricane Helene today and Thursday as outer rainbands from Helene extend along the Peninsula and Big Bend Coast.
- The greatest tropical tornado threat will exist along and to the east of the eventual path.
- *Tornado Watches and Warnings will be issued as conditions warrant.*

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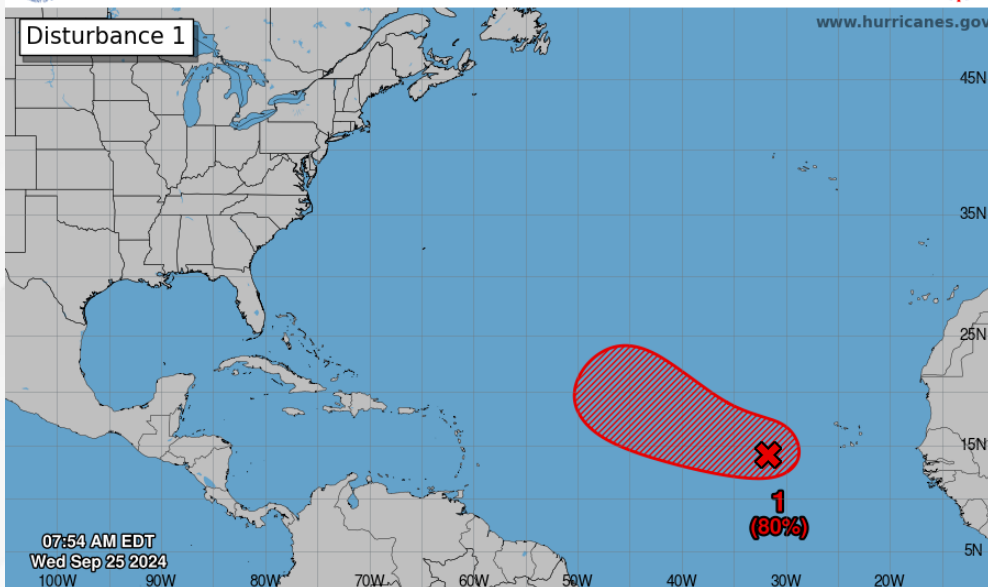
Tropical Weather Outlook

Disturbance 1 – Eastern & Central Tropical Atlantic (Invest 98L)

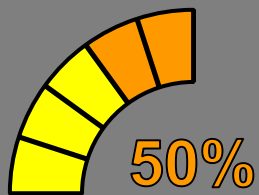


Seven-Day Graphical Tropical Weather Outlook

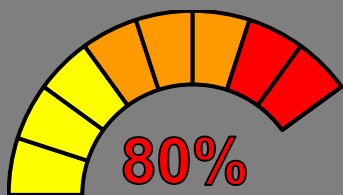
National Hurricane Center Miami, Florida



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

A broad low pressure system associated with a tropical wave located west of the Cabo Verde Islands continues to produce disorganized shower and thunderstorm activity. Environmental conditions appear favorable for gradual development of this system, and a tropical depression is likely to form in a few days while it moves westward to west-northwestward across the eastern and central tropical Atlantic.

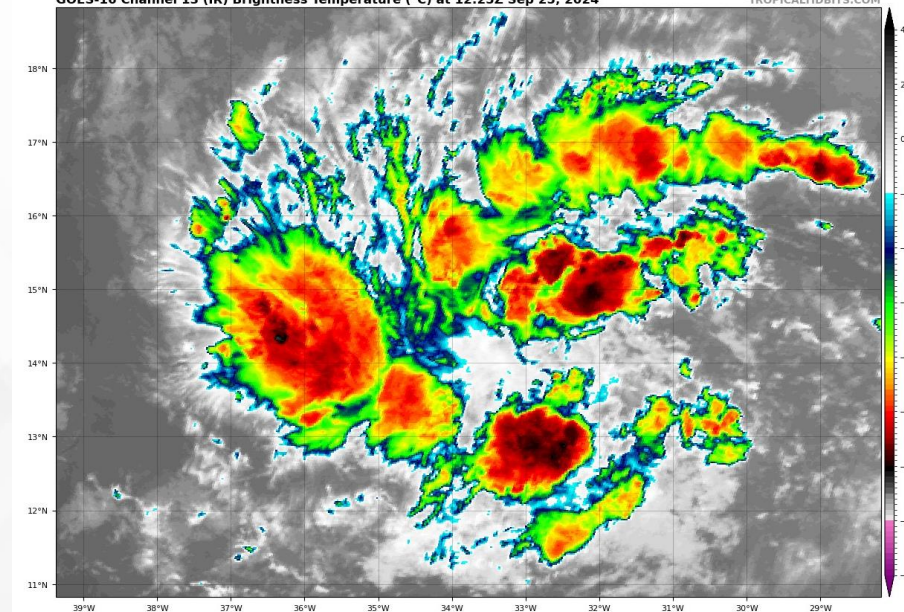
This system does not pose a threat to Florida through the next 7-10 days, at least.

Chance of development through 48 hours... **medium...50%.**

Chance of development through 7 days... **high...80%.**

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 12:25Z Sep 25, 2024

TROPICALDIBITS.COM





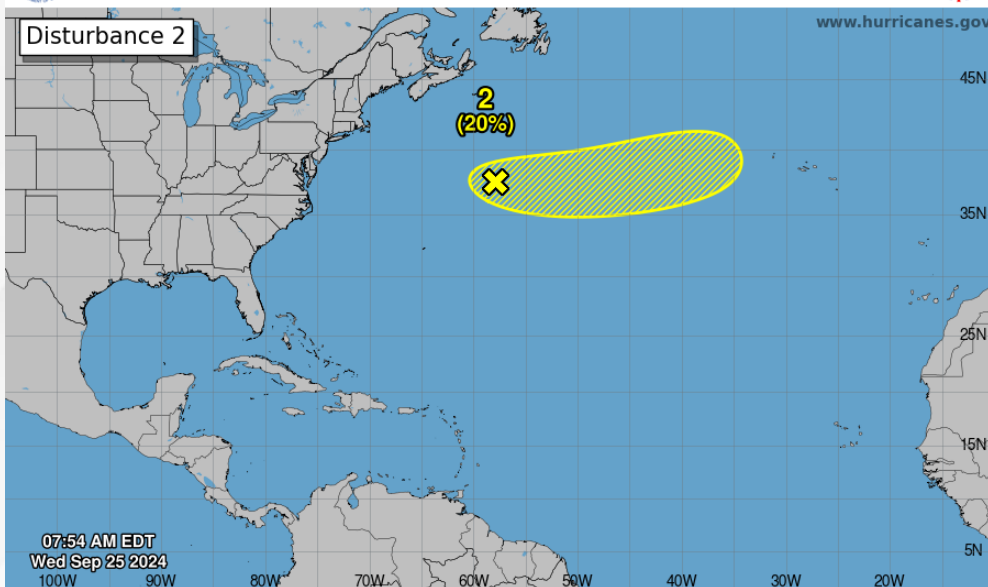
Tropical Weather Outlook

Disturbance 2 – Eastern & Central Tropical Atlantic (Invest 99L)



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

20%

7 Day Formation

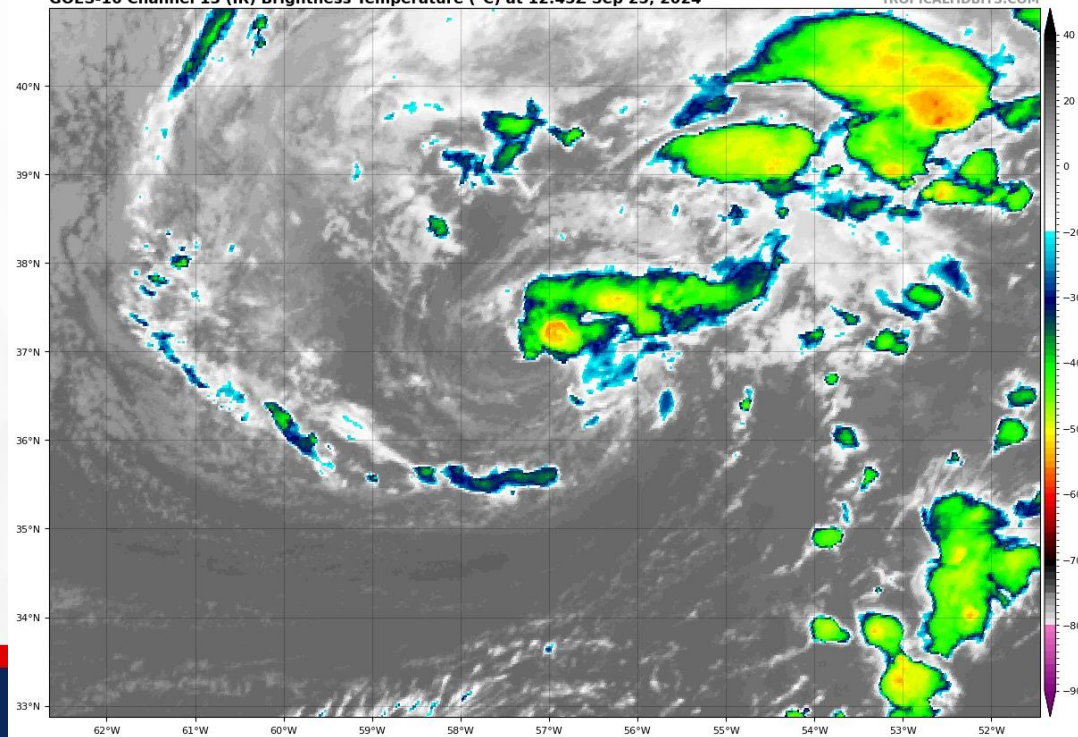
A non-tropical area of low pressure is currently located several hundred miles to the northeast of Bermuda. The system is currently producing winds up to storm force, and environmental conditions could support some subtropical or tropical development over the next several days as the system moves generally eastward, remaining over the open waters of the central Subtropical Atlantic.

This system does not pose a threat to Florida.

Chance of development through 48 hours... **low...10%.**

Chance of development through 7 days... **low...20%.**

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 12:45Z Sep 25, 2024





Summary

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Tropical Storm Helene:

- As of 5:00 AM EDT, Tropical Storm Helene is located about 45 miles east-northeast of Cozumel, Mexico and about 120 miles southwest of the western tip of Cuba and moving northwestward at 10 mph.
- This general motion should continue through this morning, followed by a general northward motion beginning later today and continuing through Friday.
- On the forecast track, the center of Helene will pass near the northeastern coast of the Yucatan Peninsula this morning, move across the eastern Gulf of Mexico later today and Thursday, and reach the Big Bend coast of Florida late Thursday.
- Maximum sustained winds have increased to near 65 mph with higher gusts.
- Strengthening is forecast, and Helene is expected to become a hurricane later today.
- The storm is forecast to rapidly strengthen over the eastern Gulf of Mexico and become a major hurricane on Thursday.

Eastern and Central Tropical Atlantic:

- A broad area of low pressure system associated with a tropical wave located west of the Cabo Verde Islands continues to produce disorganized shower and thunderstorm activity.
- Environmental conditions appear favorable for gradual development of this system.
- A tropical depression is likely to form in a few days while it moves westward to west-northwestward across the eastern and central tropical Atlantic.
- There is a **medium (50%) chance** for development through the next 48 hours. There is a **high (80%) chance** for development through the next 7 days.
- *This system poses no direct threat to Florida over the next 7-10 days at least.*

Central Subtropical Atlantic:

- A non-tropical area of low pressure is currently located several hundred miles to the northeast of Bermuda.
- The system is currently producing winds up to storm force.
- Environmental conditions could support some subtropical or tropical development over the next several days as the system generally moves eastward, remaining over the open waters of the central Subtropical Atlantic.
- There is a **low (10%) chance** for development through 48 hours. There is a **low (20%) chance** for development through the next 7 days.

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



Summary

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Florida Outlook:

- **Hurricane Warnings** have been issued for the following counties: Jackson, Calhoun, Gulf, Gadsden, Liberty, Franklin, Leon, Wakulla, Jefferson, Madison, Taylor, Hamilton, Suwannee, Lafayette, Columbia, Gilchrist, Dixie, western Alachua, Levy, western Marion, coastal Citrus, coastal Hernando, coastal Pasco
- **Hurricane Watches** have been issued for the following counties: Inland Citrus, inland Hernando, inland Pasco, Pinellas, coastal Hillsborough, coastal Manatee, coastal Sarasota
- **Tropical Storm Warnings** have been issued for the following counties: Walton, Holmes, Washington, Bay, Baker, Nassau, Duval, Union, Bradford, Clay, St. Johns, eastern Alachua, Putnam, Flagler, eastern Marion, Volusia, inland Citrus, Sumter, Lake, Seminole, Brevard, Orange, inland Hernando, inland Pasco, Pinellas, Hillsborough, Polk, Osceola, Indian River, Manatee, Hardee, Highlands, Okeechobee, St. Lucie, Martin, Glades, DeSoto, Sarasota, Charlotte, Palm Beach, Hendry, Lee, Collier, Broward, Miami-Dade, Monroe
- Hurricane Helene will be a significant multi-hazardous event, bringing the risk for life-threatening storm surge, dangerous winds, heavy rainfall, and isolated tropical tornadoes to the Florida Gulf Coast.
- The large wind field and fast forward approach of this system will not only increase the threat of water above normally dry ground along the coastline, but also the inland extent of storm surge.
 - **Storm surge values of 10-15'** above normally dry ground will be possible from the Ochlockonee River through the Nature Coast, with 5-10' possible along to the central Florida Panhandle and north of Tampa Bay.
 - Even despite Helene's distance from Tampa Bay, the broad wind field will also be able to yield storm surge values of 5-8' during times of onshore flow.
 - A **Storm Surge Warning** extends along the entire Florida Big Bend and Gulf Coast from Indian Pass (Franklin/Gulf County-line) southward to Flamingo (Mainland Monroe) and including Tampa Bay and Charlotte Harbor.
 - A **Storm Surge Watch** has been issued along from Mexico Beach to Indian Pass due to potential storm surge of 2-4'.
 - **Coastal Flood Warnings** have been issued along the Northeast Florida, as well as the Florida Keys, coast due to storm surge of 1-3' possible.
- Tropical storm-force winds could arrive as early as this afternoon and into the early evening hours along the Florida Keys and the immediate Southwest Florida coast.
 - Deteriorating conditions can be expected, and tropical storm-force winds could arrive as early as overnight across portions of West-Central and South Florida, then the Nature Coast and Big Bend Thursday morning.
 - Hurricane-force winds probabilities are likely to increase with the forward motion and rapid strengthening of Helene across the Florida Big Bend and extending along the Nature Coast towards West-Central Florida.
- Helene affecting the eastern Florida Panhandle, Florida Big Bend, and West Florida Coast could quickly cause trees and powerlines to become more susceptible to downing from gusty winds, especially given the vulnerability of local vegetation and infrastructure across these regions still recovering from Hurricane Debby.
- Localized areal, urban, and small stream flooding impacts are possible for portions of North and West Florida and locations that experience intense rainfall rates will likely experience rapid onset flash flooding (**Slight to Moderate Risk for Flash Flooding – level 2/3 of 4**).
 - **Flood Watches** have been raised nearly statewide.
- As with any tropical system, isolated tornadoes will be possible even prior to landfall particularly for areas to the east of the center of circulation later in the day today and into Thursday (**Marginal to Slight Risk for Severe Weather – level 1-2 of 5**).

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



Tropical Update

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Created by:

Kennedy Tartt, Assistant State Meteorologist

Kennedy.Tartt@em.myflorida.com

State Meteorological Support Unit

Florida Division of Emergency Management

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