



# Tropical Update



5:00 PM EST

Tuesday, November 8, 2022

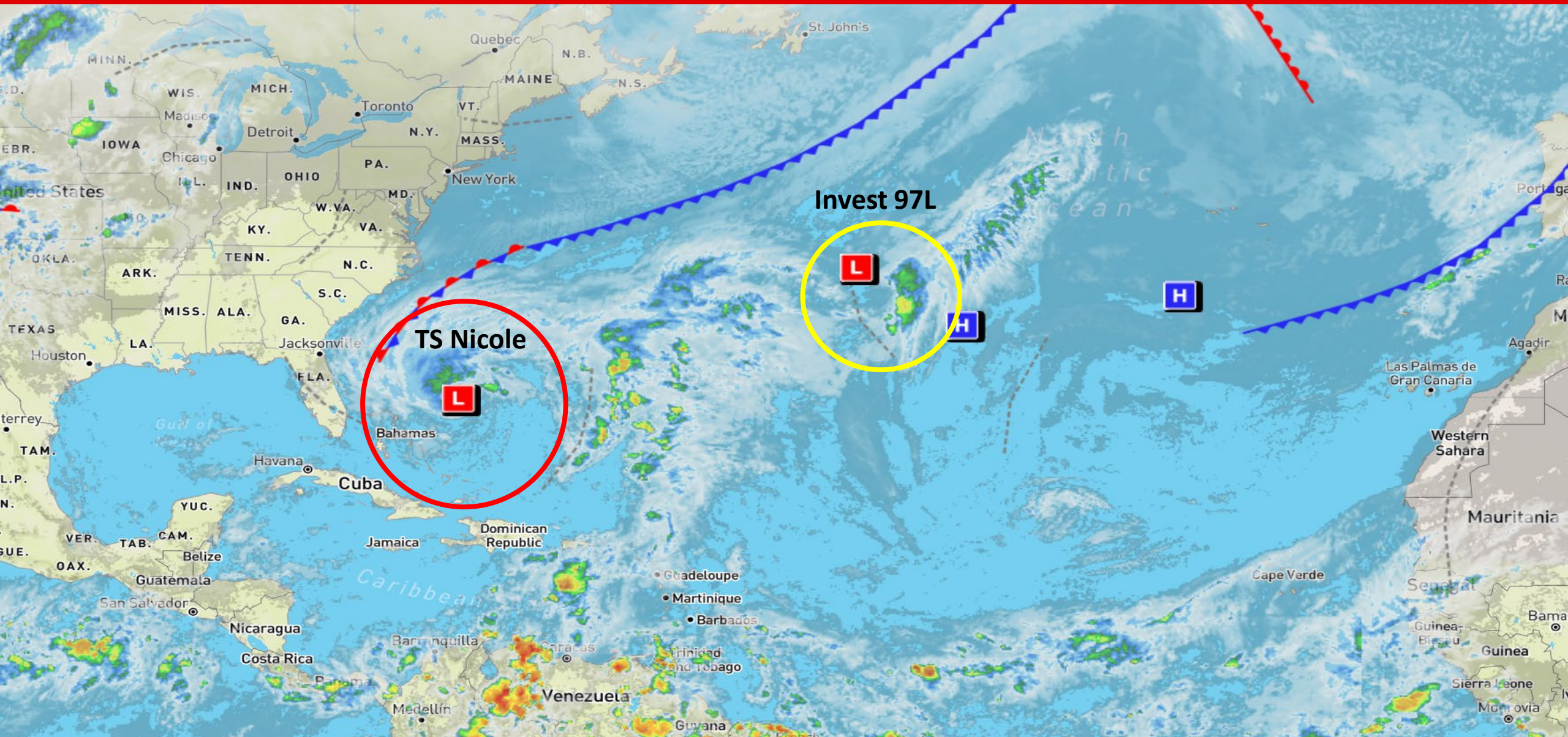
**Tropical Storm Nicole**

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).



# Atlantic Basin Satellite Image

Chance of development:   None   Low   Medium   High



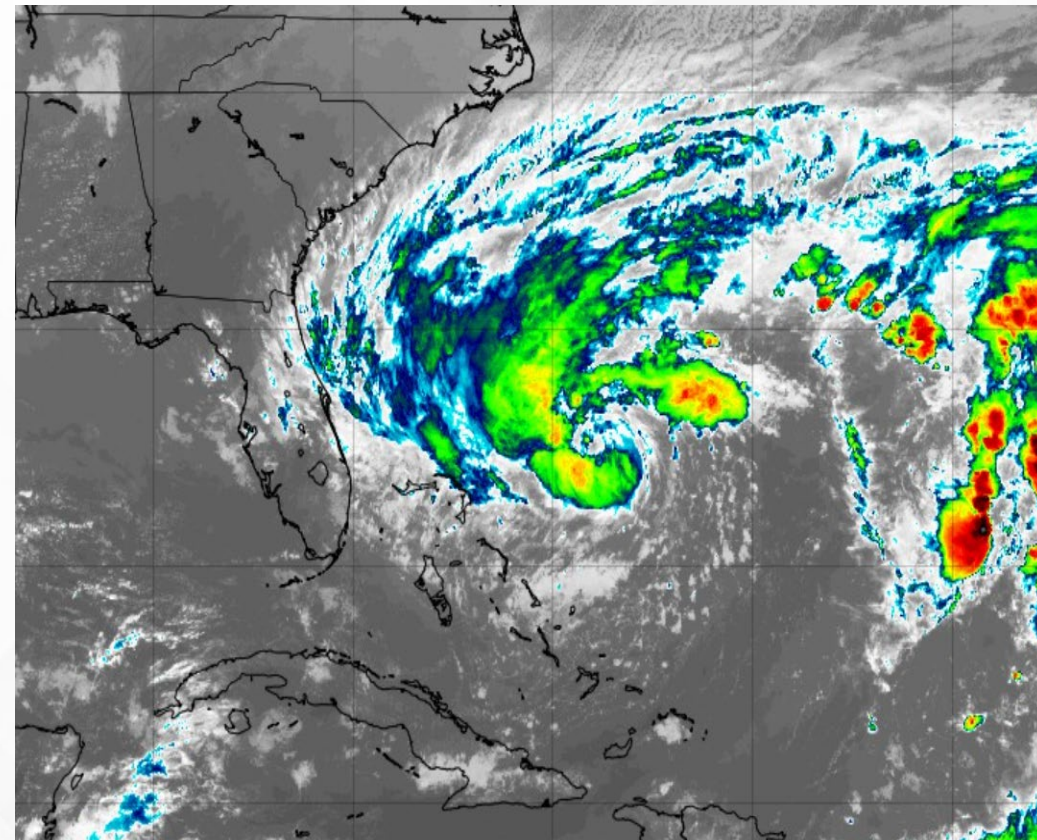




# Tropical Storm Nicole

4 PM EST Tuesday: Florida Threats & Changes Since Last Packet

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

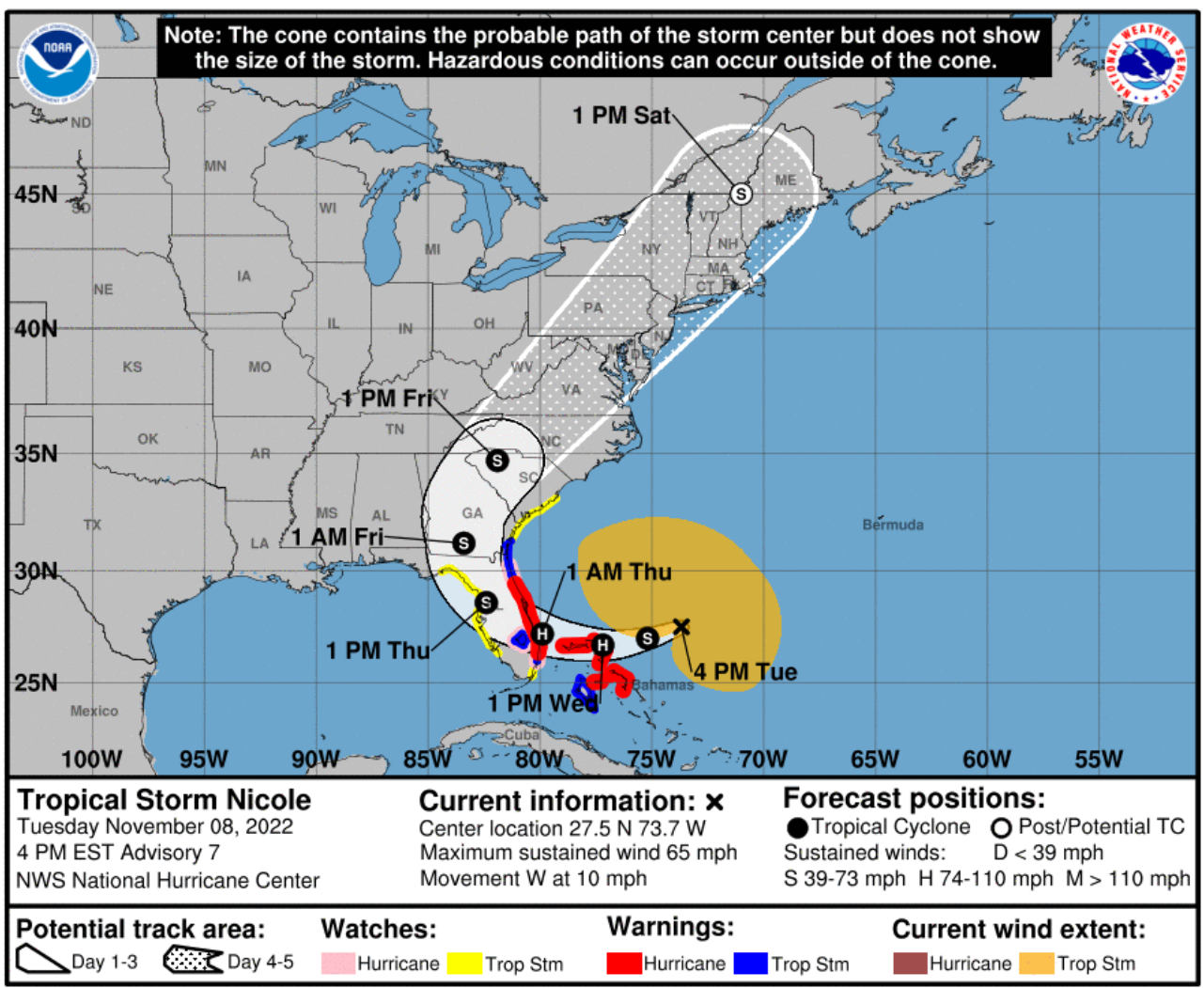


**Overview/Recent Changes:** Tropical Storm Watches and Warnings have been expanded to additional inland Central and North Florida Counties. A Storm Surge Watch is now in effect along the Nature Coast and portions of Apalachee Bay. Coastal flood impacts from Nicole are possible beginning tonight, and damaging winds are expected to expand across much of the Florida Peninsula on Wednesday. There is a risk of life-threatening storm surge, significant coastal erosion, damaging winds, flooding and isolated tornadoes from this system.



# Forecast Cone

## Tropical Storm Nicole



**Location:** 411 miles east of Vero Beach, FL  
**Maximum Winds:** 65 mph  
**Movement:** WSW at 10 mph

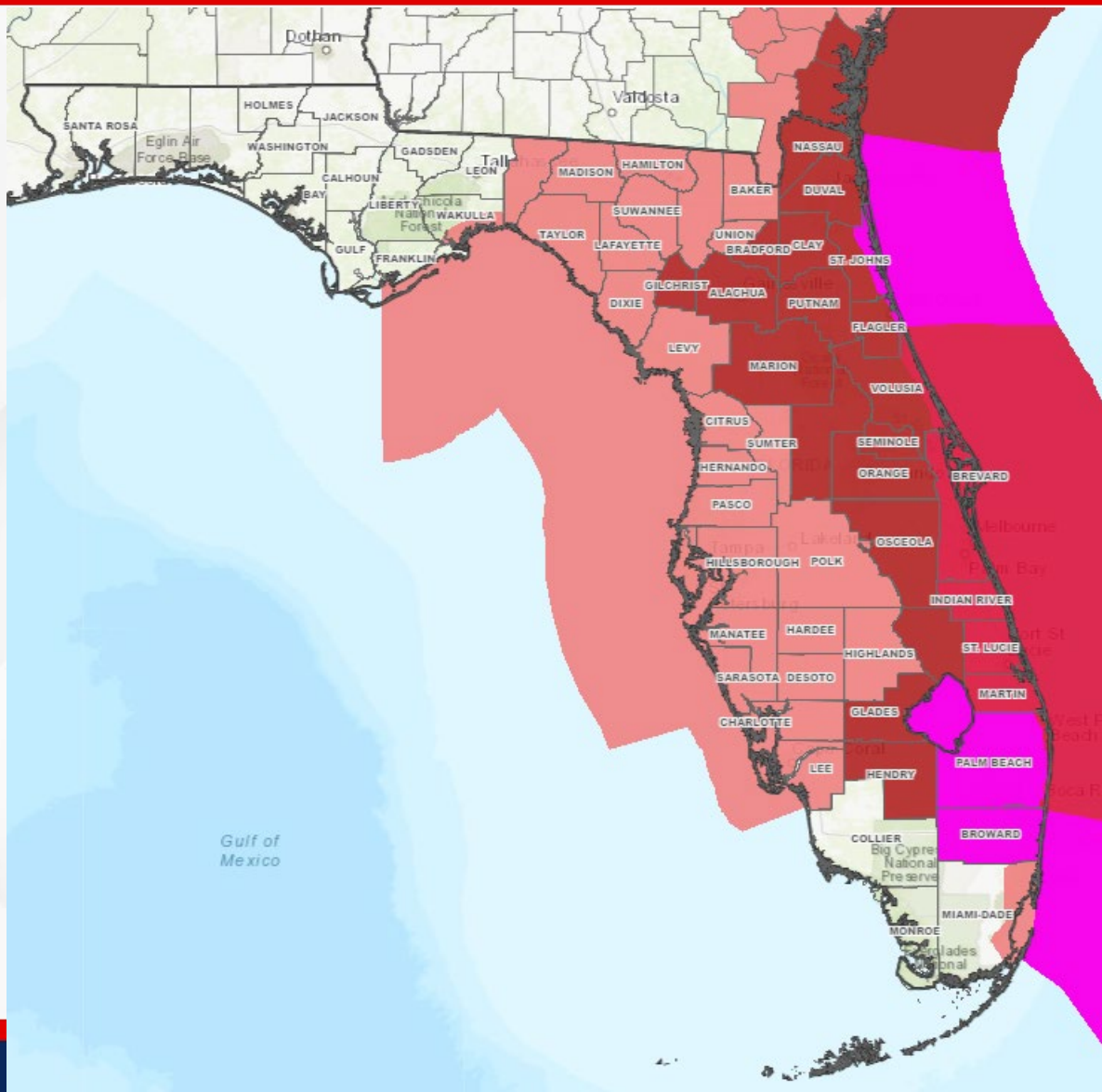
Tropical storm winds are continuing to expand, mainly on the northern and eastern side of the center. Nicole is forecast to be a hurricane by Wednesday night while it is moving near the northwestern Bahamas and approaching the East Coast of Florida. On the forecast track, the center of Nicole will approach the northwestern Bahamas tonight, move near or over those islands on Wednesday, and approach the east coast of Florida within the hurricane warning area Wednesday night or early Thursday. Nicole's center is then expected to move across central and northern Florida into southern Georgia Thursday and Thursday night. However, due to the large size, tropical storm conditions could arrive Wednesday morning.





# Active Tropical Watches/Warnings

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- **Hurricane Warning**

- Counties: Coastal Palm Beach, Martin, St. Lucie, Indian River, Brevard, Coastal Volusia

- **Hurricane Watch**

- Counties: Coastal Flagler, Coastal St. Johns, inland Palm Beach, Broward

- **Tropical Storm Warning**

- Counties: Nassau, Duval, St. Johns, Flagler, Inland Volusia, Clay, Bradford, Gilchrist, Alachua, Putnam, Marion, Lake, Seminole, Orange, Osceola, Okeechobee, Inland Palm Beach, Broward, Glades, Hendry

- **Tropical Storm Watch**

- Counties: Coastal Miami-Dade, Lee, Charlotte, Sarasota, Desoto, Highlands, Hardee, Manatee, Hillsborough, Polk, Pinellas, Pasco, Hernando, Sumter, Citrus, Levy, Dixie, Lafayette, Suwannee, Hamilton, Columbia, Baker, Union, Madison, Taylor, Jefferson, Coastal Wakulla



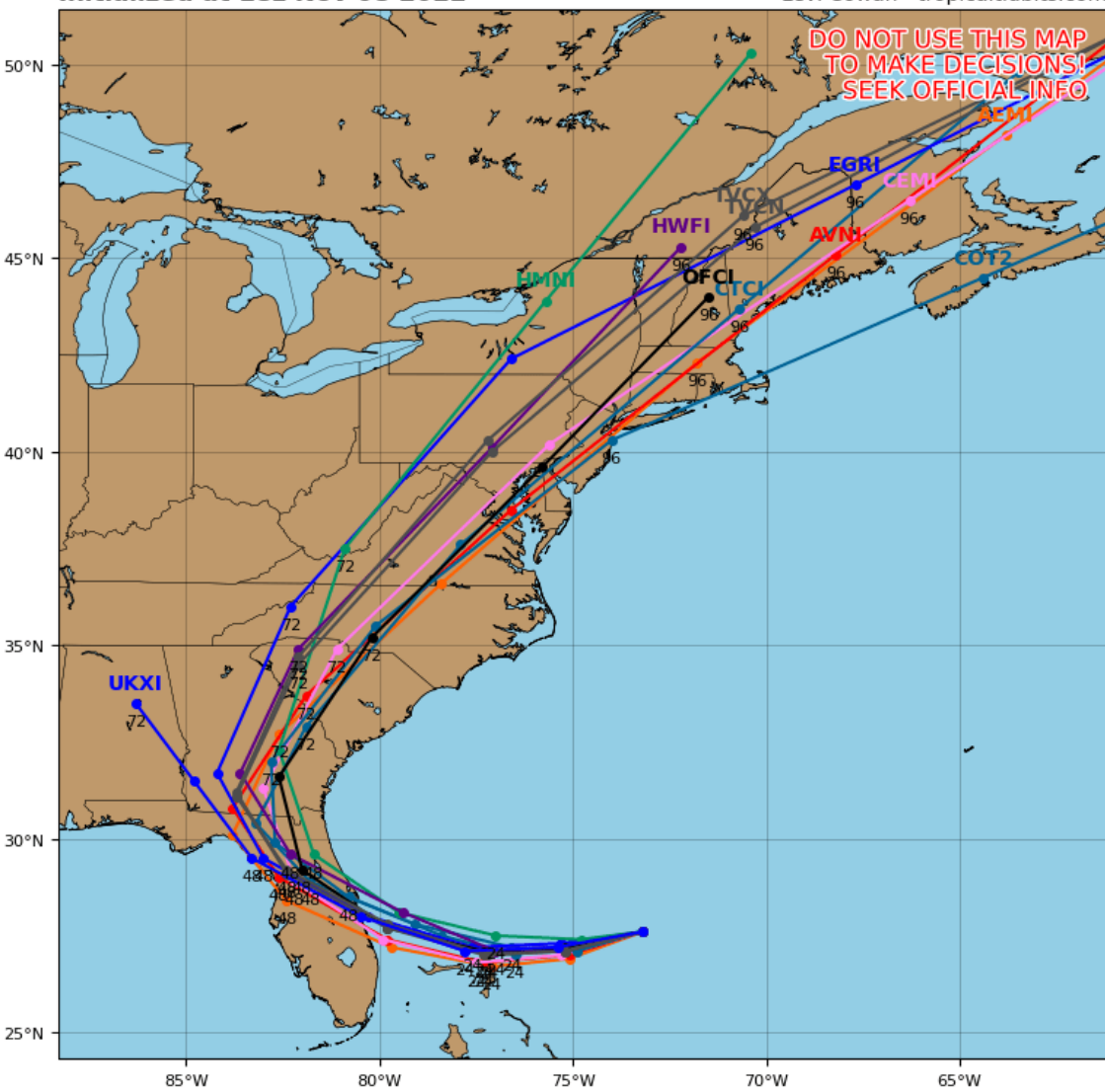
# Model Forecasts – Next 5 Days

## Tropical Storm Nicole

### Tropical Storm NICOLE Model Track Guidance

Initialized at 18z Nov 08 2022

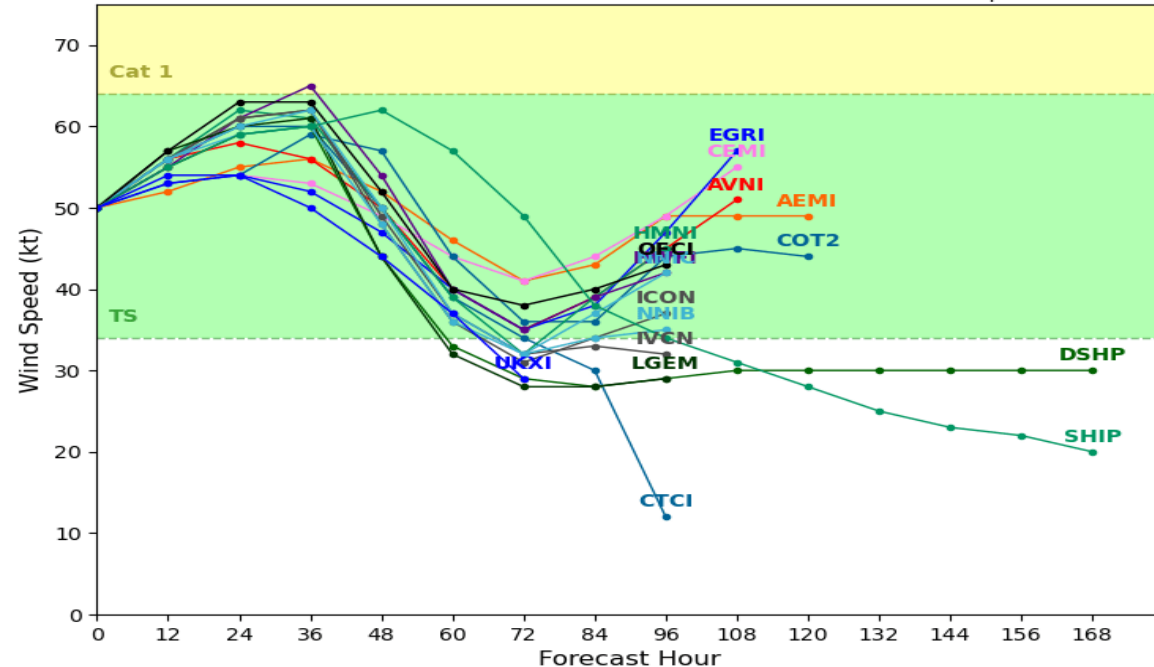
Levi Cowan - tropicaltidbits.com



### Tropical Storm NICOLE Model Intensity Guidance

Initialized at 18z Nov 08 2022

Levi Cowan - tropicaltidbits.com



Computer models are in good agreement on a track towards the Florida East Coast and landfall along the Space or Treasure Coast early Thursday morning at or near hurricane strength, but still in some disagreement on how far west Nicole will travel across the northern Florida Peninsula before being pulled quickly north and northeast.

**It is important to note that these model tracks do not depict intensity nor the envelope of impacts. Nicole is a large storm and impacts are likely to be felt across the majority of the Peninsula and eastern Big Bend.**

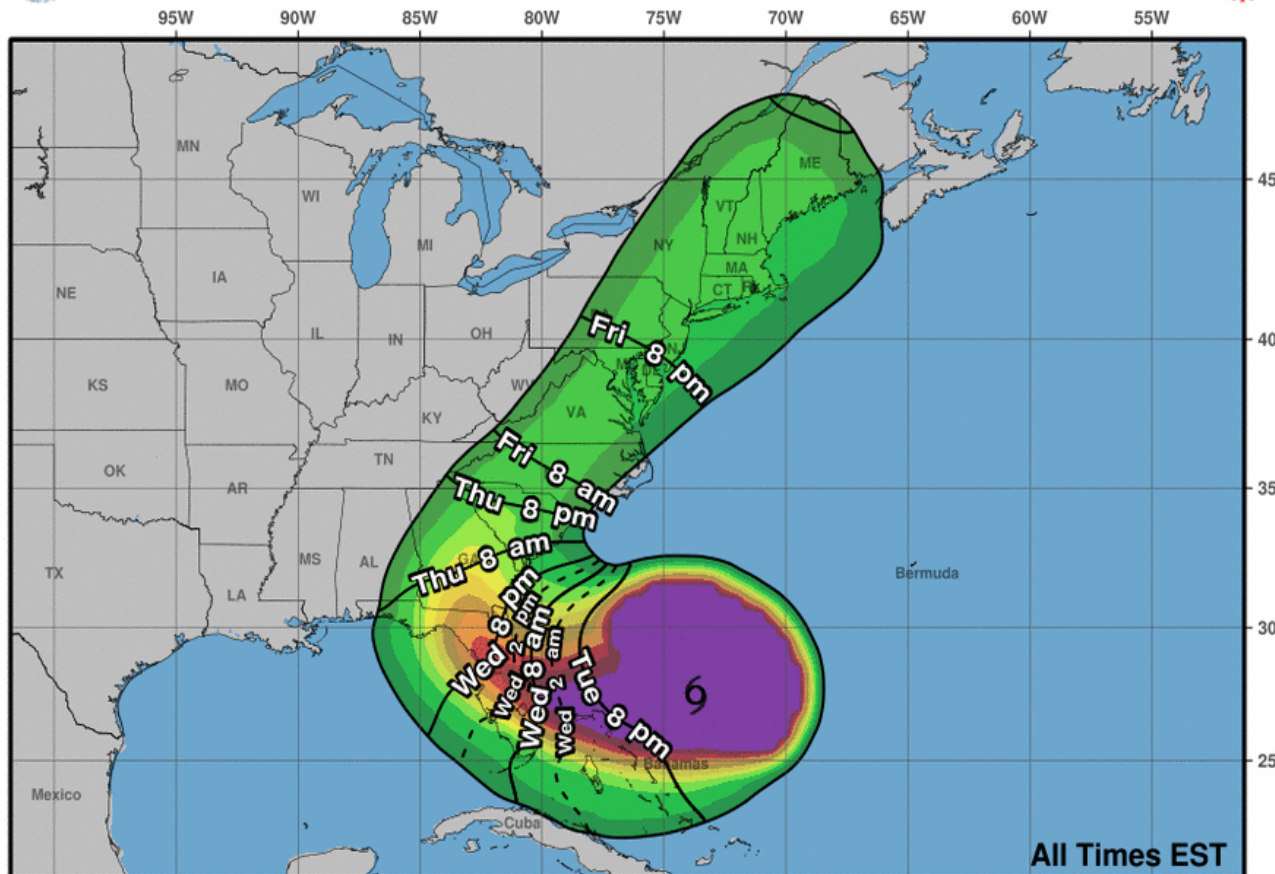
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# Tropical Storm-Force Wind Probabilities

## Tropical Storm Nicole

### Earliest Reasonable Arrival Time of Tropical-Storm-Force Winds



**Tropical Storm Nicole**  
Tue. Nov. 8, 2022 4 pm EST  
Advisory 7

Storm Location & Wind Speed  
○ < 34 kt (39 mph)  
○ 34-63 kt (39-73 mph)  
● ≥ 64 kt (74 mph)

5-day chance of receiving sustained 34+ kt (39+ mph) winds  
5 10 20 30 40 50 60 70 80 90 100 %

Jacksonville – 50% **(+1)**  
Orlando – 80% **(+11)**  
Cocoa Beach – 84% **(+2)**  
Ft. Pierce – 86% **(+5)**  
West Palm Beach – 75% **(+10)**  
Miami – 29% **(+6)**  
Key West – 8% **(+1)**  
Ft. Myers – 29% **(+7)**  
Tampa – 60% **(+10)**  
Cedar Key – 66% **(+13)**  
Tallahassee – 39% **(+6)**  
Apalachicola – 29% **(+3)**

**\*Numbers in parenthesis show the change in probability since the last briefing packet.\***

**Note: A reduction in percentages does not necessarily mean a lower threat. These probabilities are dependent on the track, wind radii and intensity and may fluctuate up and down.**

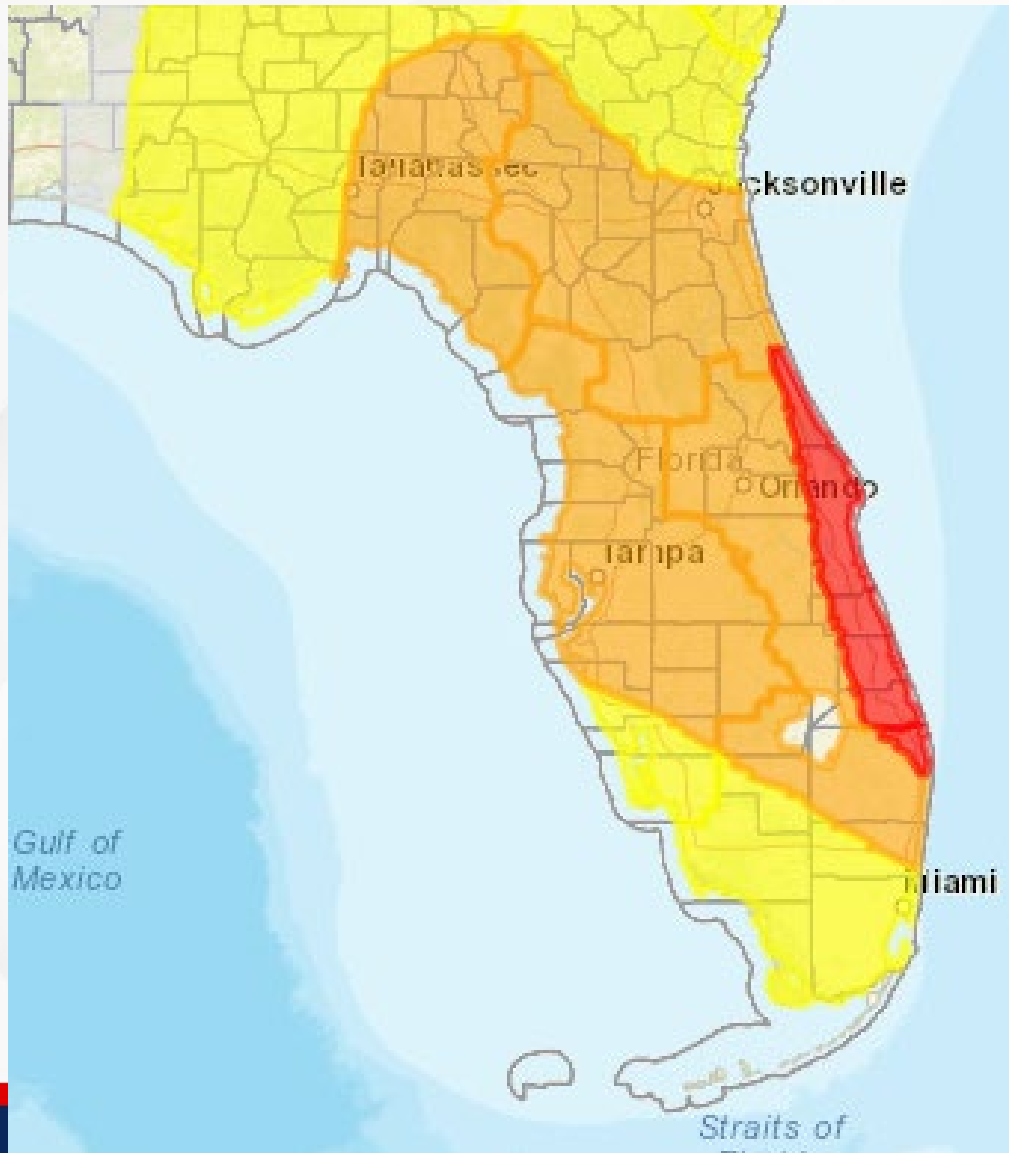
Tropical storm-force winds may begin as early as Wednesday morning along the Florida East Coast and could spread through the remainder of the Peninsula during the day. Tropical storm conditions could arrive in the Florida Big Bend overnight Wednesday.





# Damaging Wind Threat Overview

## Tropical Storm Nicole



The greatest damaging wind threat is mainly along the Space and Treasure Coasts. The overall wind threat has increased across the northern and central Florida Peninsula and has expanded northwestward to the eastern Florida Big Bend.

<https://www.weather.gov/srh/tropical?office=mfl>

Click on "Threats and Impacts" Tab

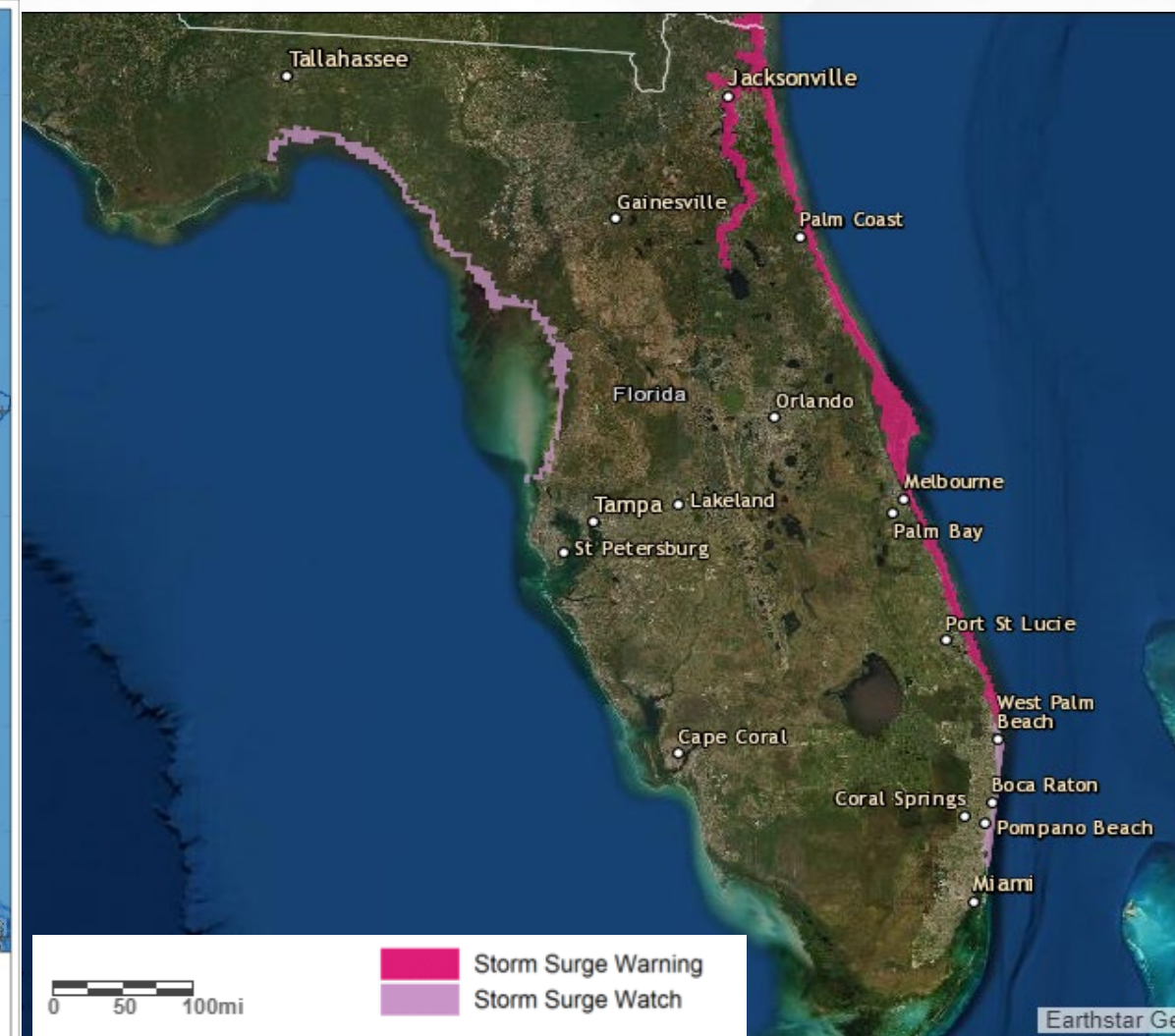
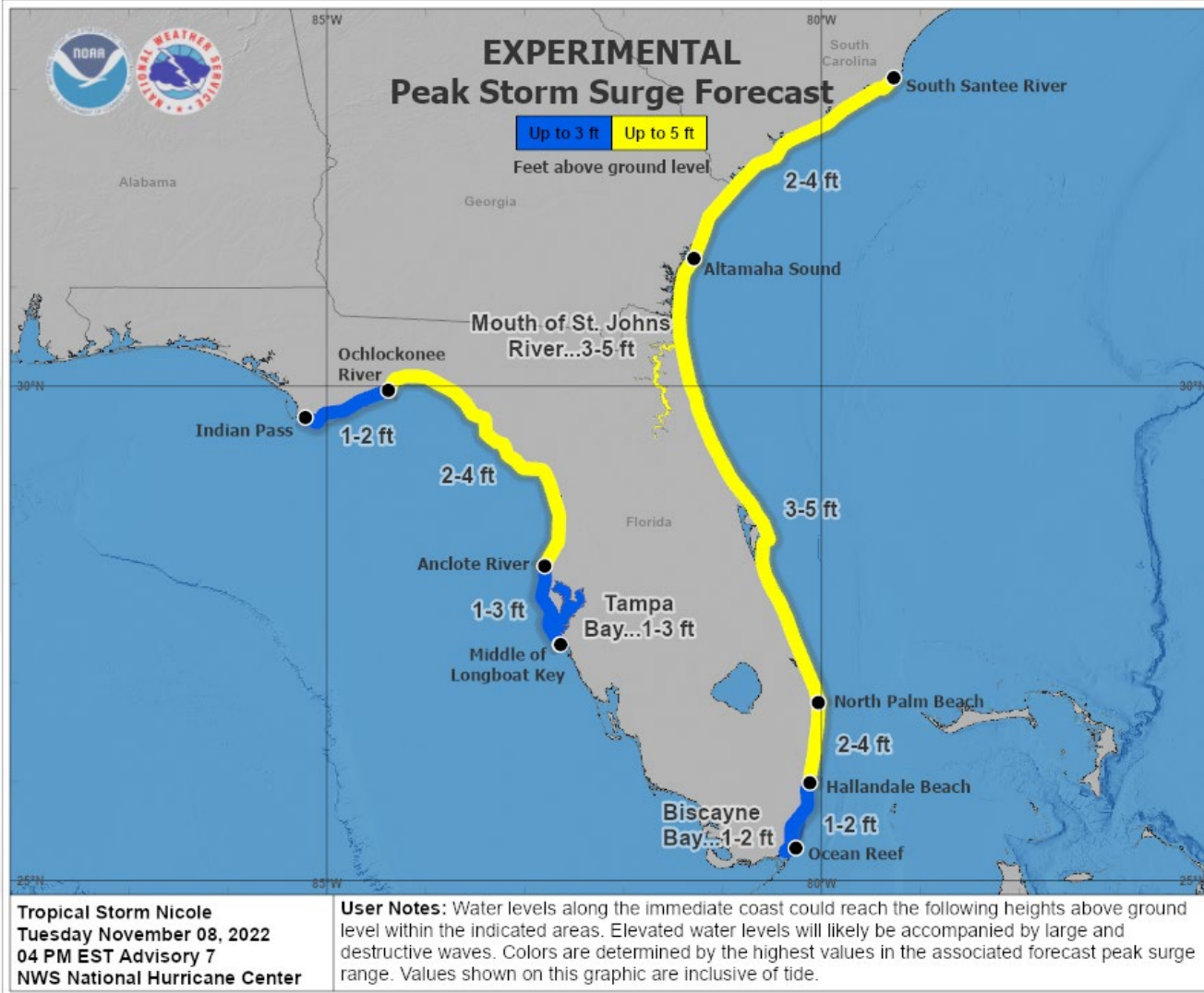
Wind Threat
Potential for wind greater than 110 mph
Potential for wind 74 to 110 mph
Potential for wind 58 to 73 mph
Potential for wind 39 to 57 mph
Wind less than 39 mph





# Surge Watches and Warnings

## In Effect Until Further Notice

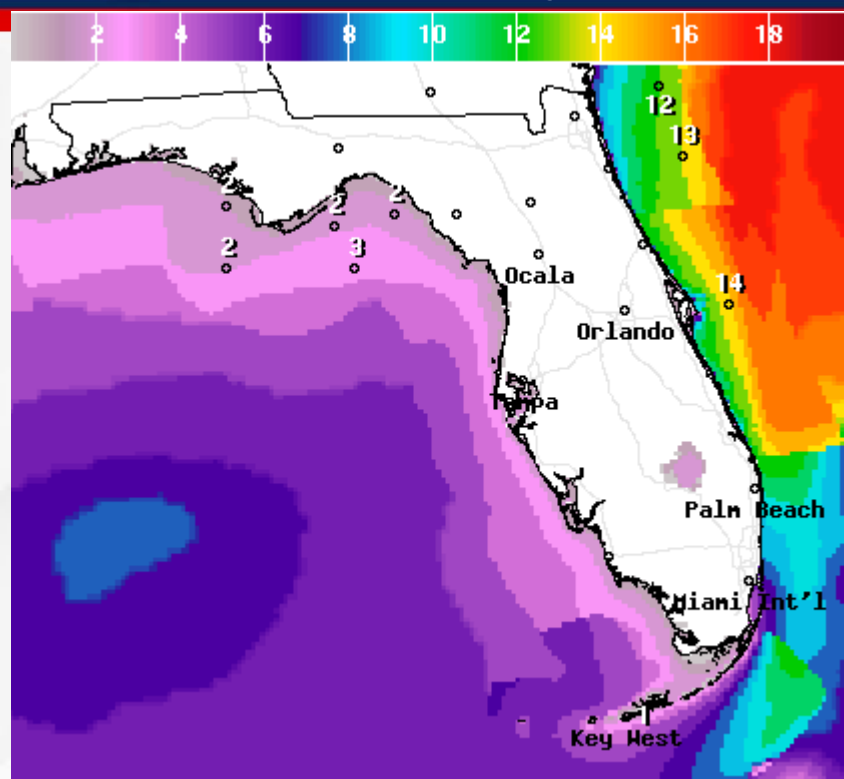


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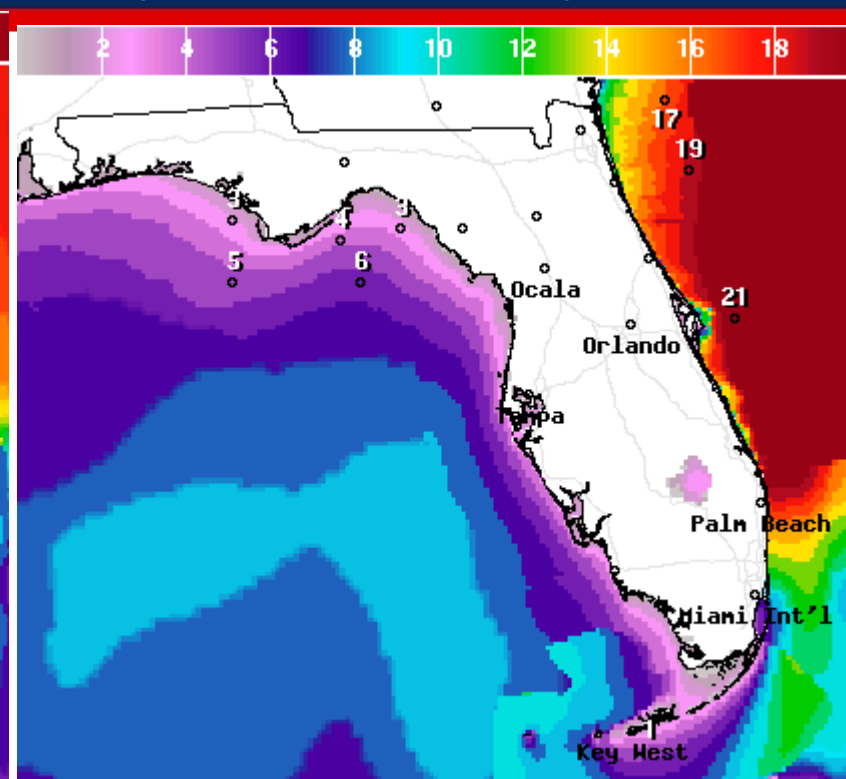


# Wave Heights & Ocean Swells

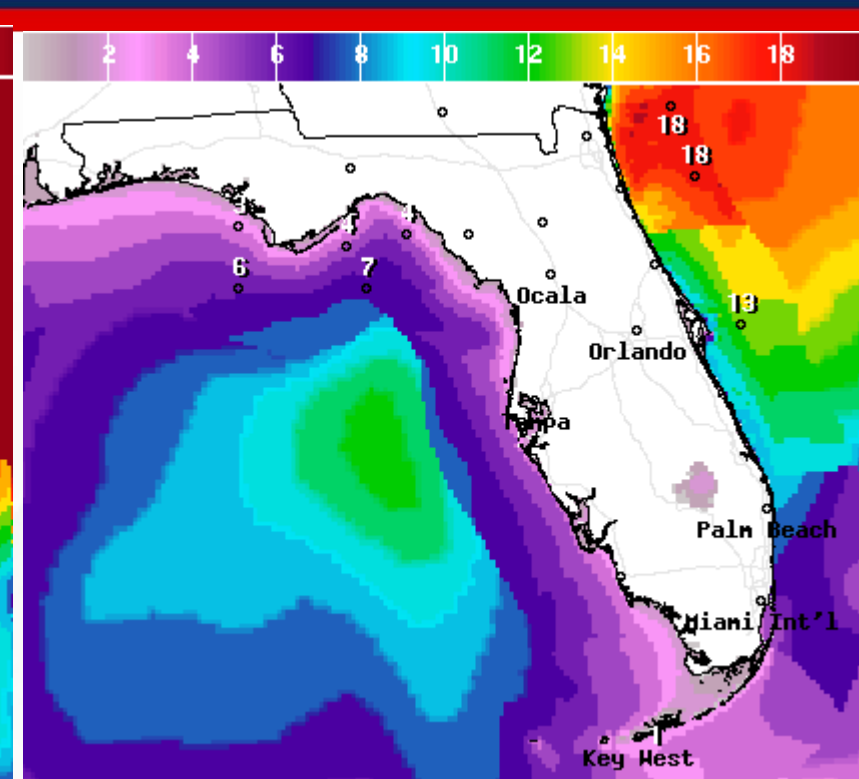
## Tuesday, Wednesday, & Thursday



Tuesday



Wednesday



Thursday

An ocean swell along the east coast will continue to grow, resulting in an increase in wave heights. The highest values should occur on Wednesday and Thursday as breaking waves of 8-12' will be possible today, 10-20' Wednesday and 9-16' Thursday along much of the Florida East Coast. This may result in moderate to severe coastal erosion at times of high tide and a high risk of rip currents. Wave heights will also increase along portions of the Florida Gulf Coast on Thursday due to westerly winds on the southern side of Nicole.





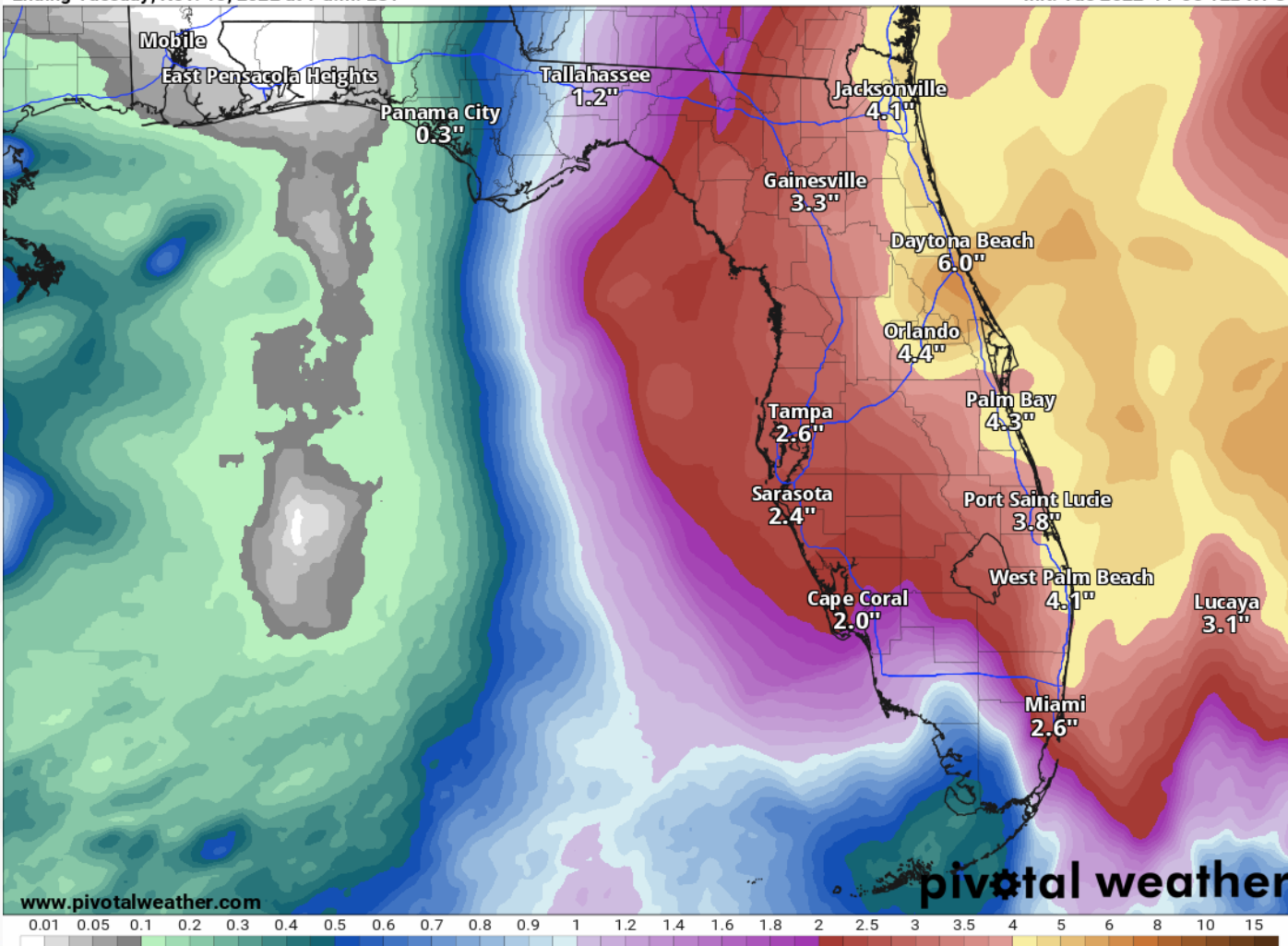
# 7-Day Forecast Rainfall

## From the Weather Prediction Center

### 7-Day Precipitation (in)

Ending Tuesday, Nov. 15, 2022 at 7 a.m. EST

Init: Tue 2022-11-08 12z WPC



While it is still too early to determine where the heaviest rainfall totals will occur, widespread rainfall totals of 4-6" are possible along portions of the East Coast. Rainfall totals of 2-4" are expected across the remainder of the Peninsula.

Isolated higher totals near 8" are possible, and these amounts could change depending on the forecast track, intensity and structure of the storm.



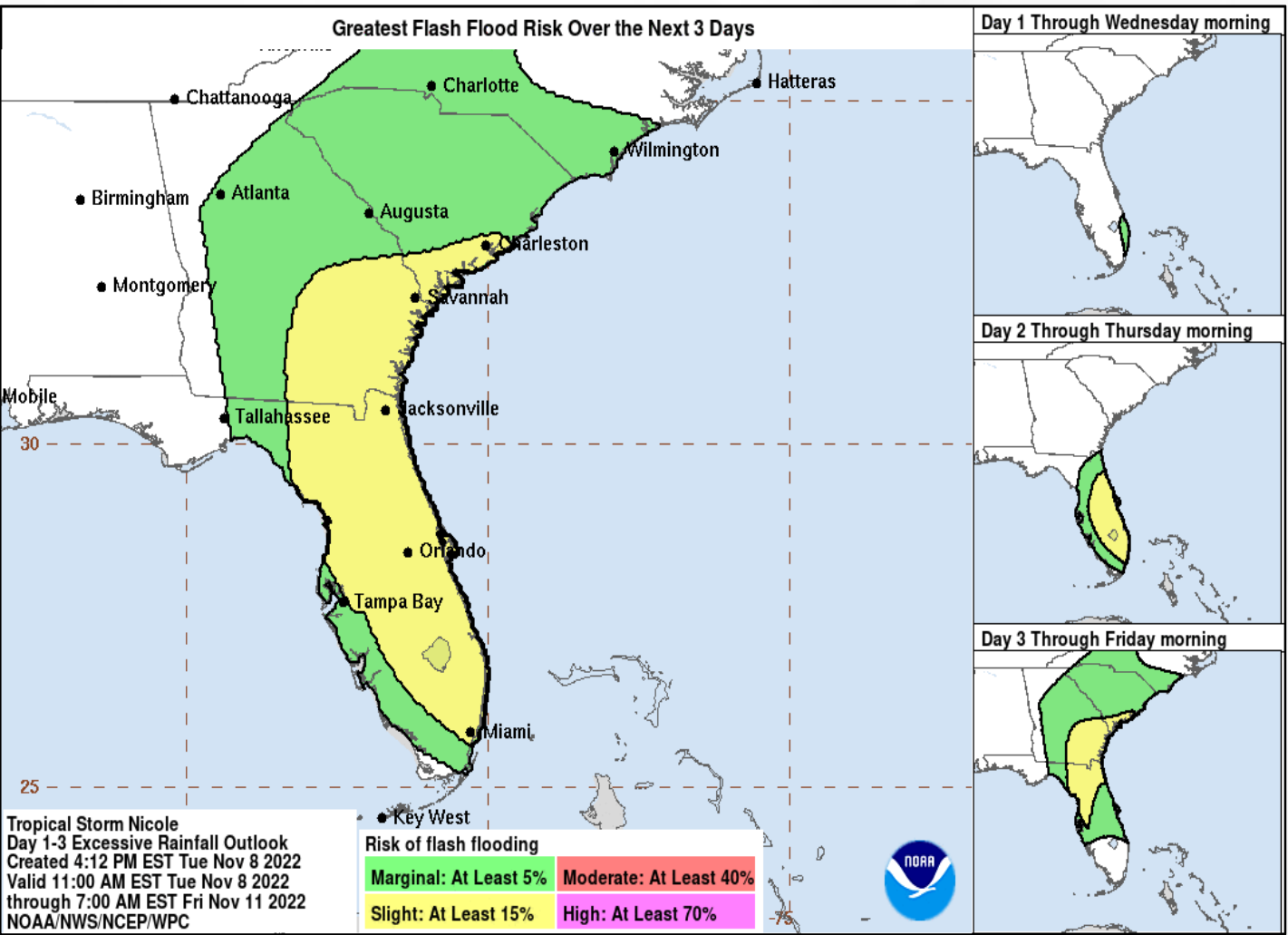
# Flash Flood Outlooks

## From the Weather Prediction Center

### Understanding WPC Excessive Rainfall Risk Categories

No Area/Label	MARGINAL (MRGL)	SLIGHT (SLGT)	MODERATE (MDT)	HIGH (HIGH)
Flash floods are generally not expected.	Isolated flash floods possible	Scattered flash floods possible	Numerous flash floods likely	Widespread flash floods expected
	Localized and primarily affecting places that can experience rapid runoff with heavy rainfall.	Mainly localized. Most vulnerable are urban areas, roads, small streams and washes. Isolated significant flash floods possible.	Numerous flash flooding events with significant events possible. Many streams may flood, potentially affecting larger rivers.	Severe, widespread flash flooding. Areas that don't normally experience flash flooding, could. Lives and property in greater danger.
<a href="http://www.wpc.ncep.noaa.gov">@NWSWPC</a>				
Flash flooding near me?	Flash Flooding	Flash Flooding	Flash Flooding	Flash Flooding
NO Flash Flooding				
WEATHER PREDICTION CENTER				

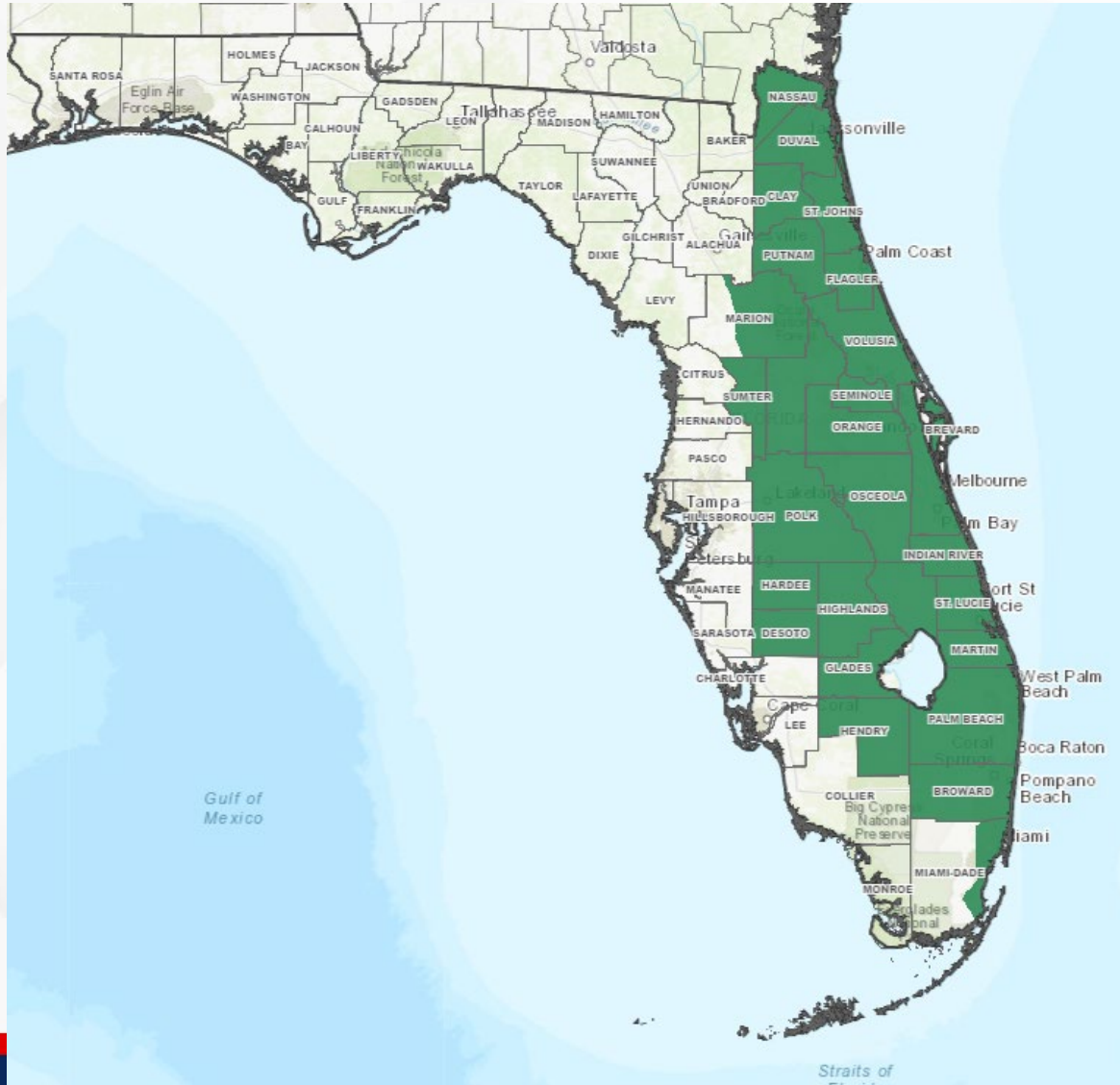
Forecast rain amounts could lead to a slight chance of flash flooding (level 2 of 4), particularly across East-Central and Southeast Florida. By Friday, the threat for flash flooding looks to expand across the West Coast, Big Bend, and Northeast Florida.







# Flood Watches in Effect

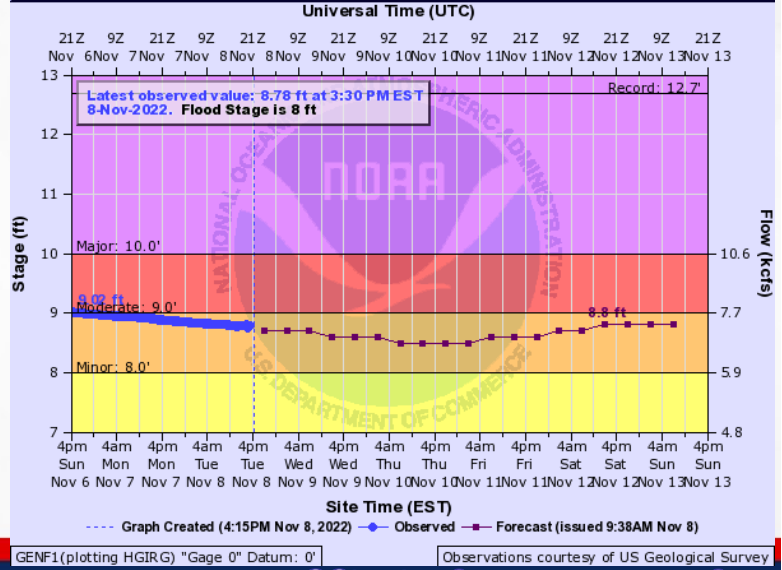
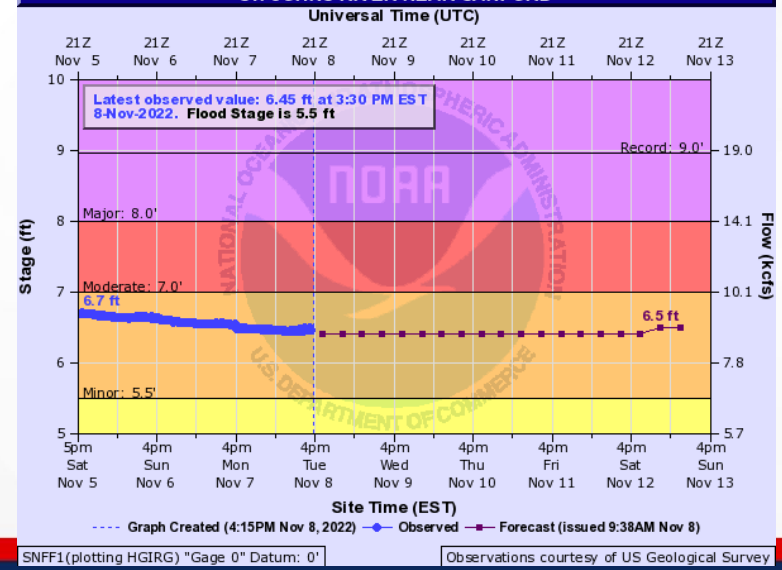
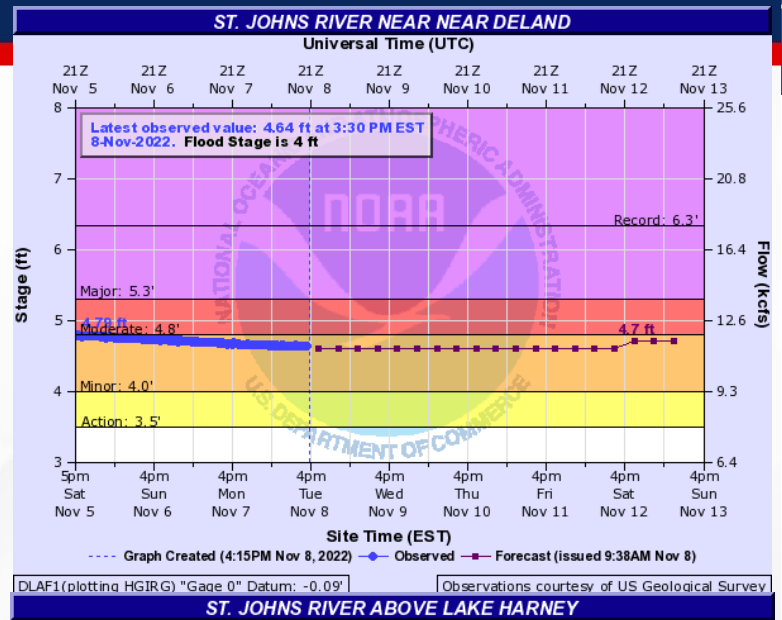
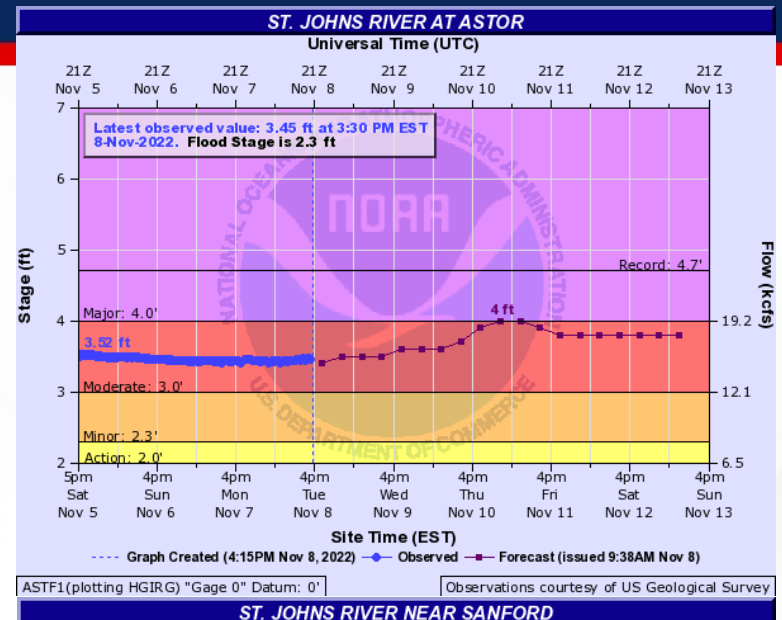
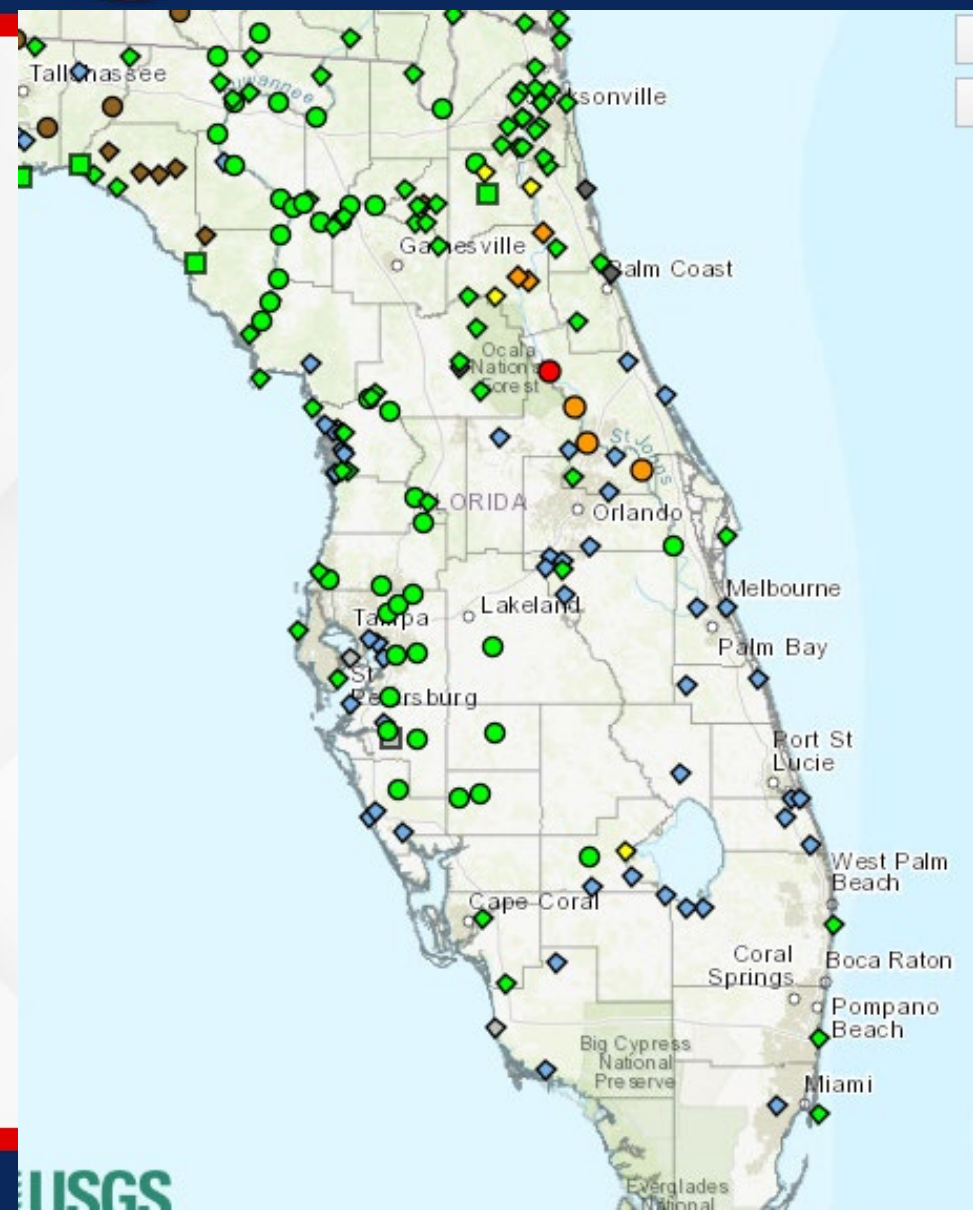


- Flood Watch in effect through Thursday afternoon
  - Counties: coastal/metro Miami-Dade, Broward, Palm Beach, Hendry, Glades, Martin, St. Lucie, Indian River, Brevard, Okeechobee, Highlands, Hardee, Desoto, Osceola, Polk, Sumter, Lake, Orange, Seminole, Volusia, Flagler, Marion, Putnam, St. Johns, Clay, Duval, Nassau



# Current River Status & Forecast Hydrographs

As of Tuesday Afternoon



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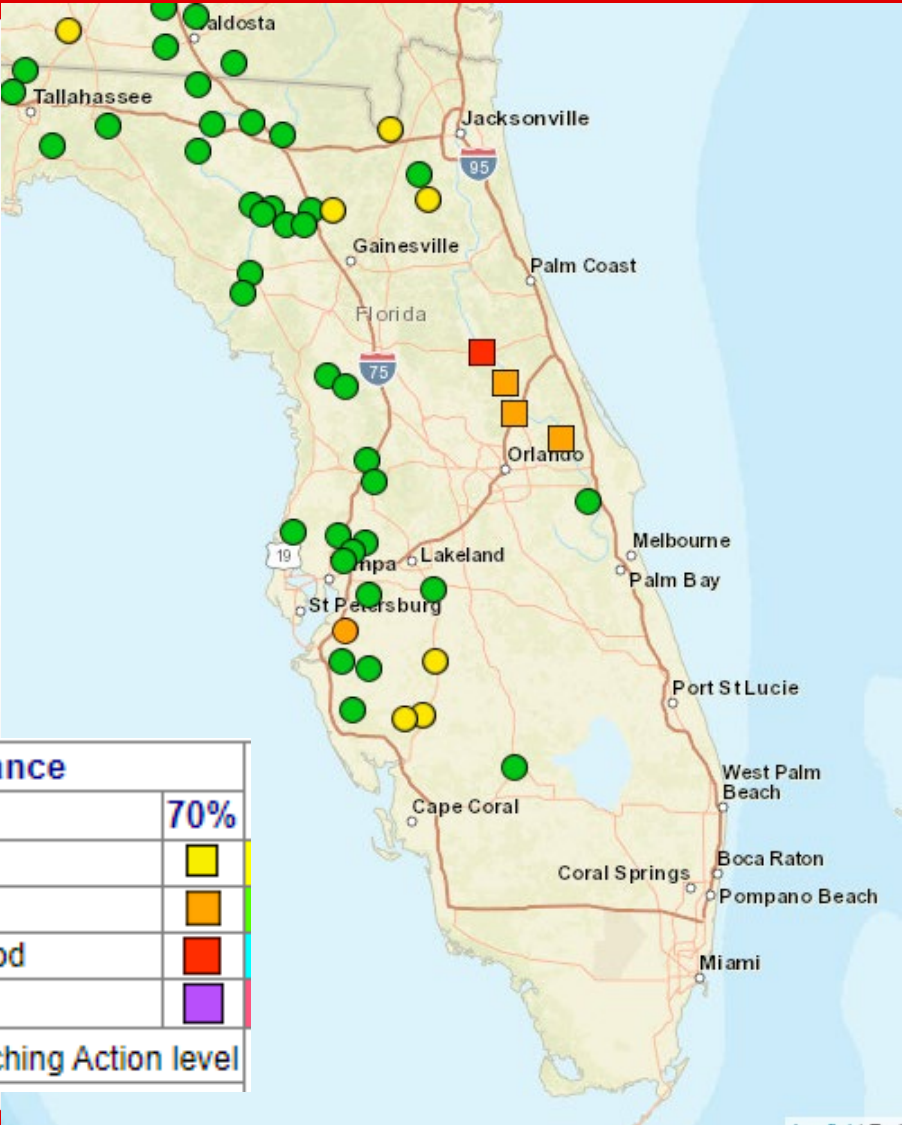




# Possible River Flooding

Chance of River Flooding Based on Range of Forecast Rainfall

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



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

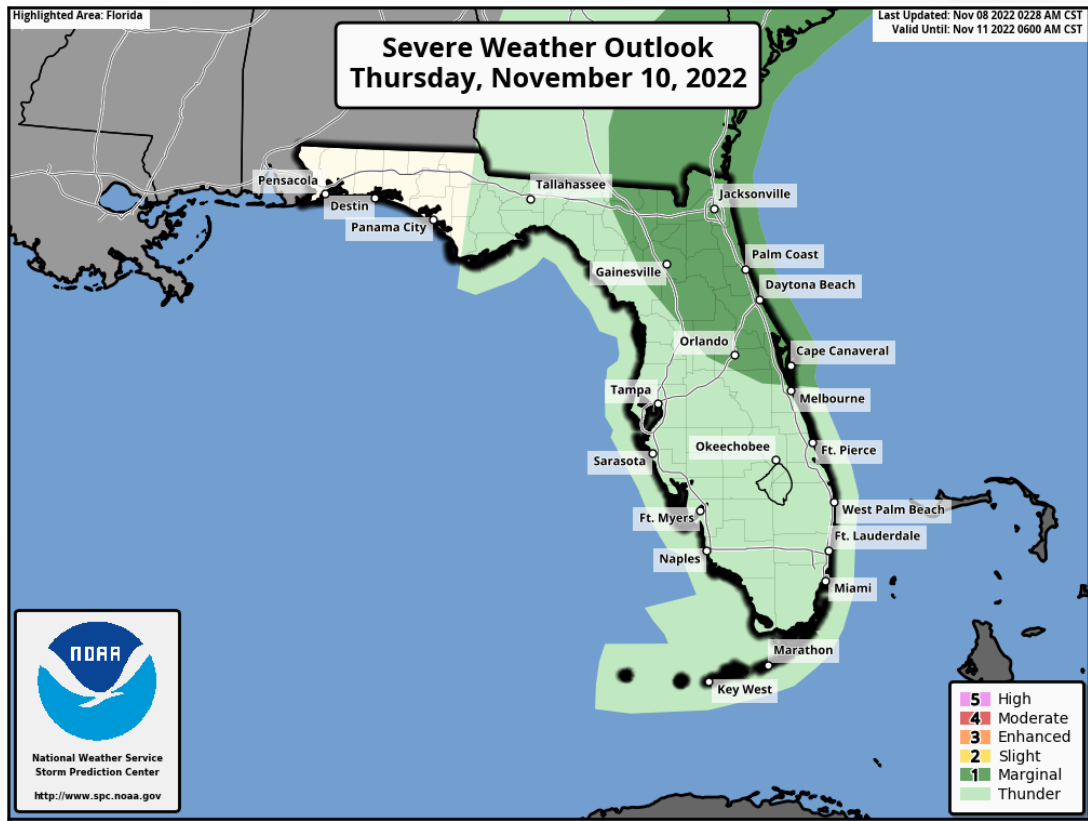
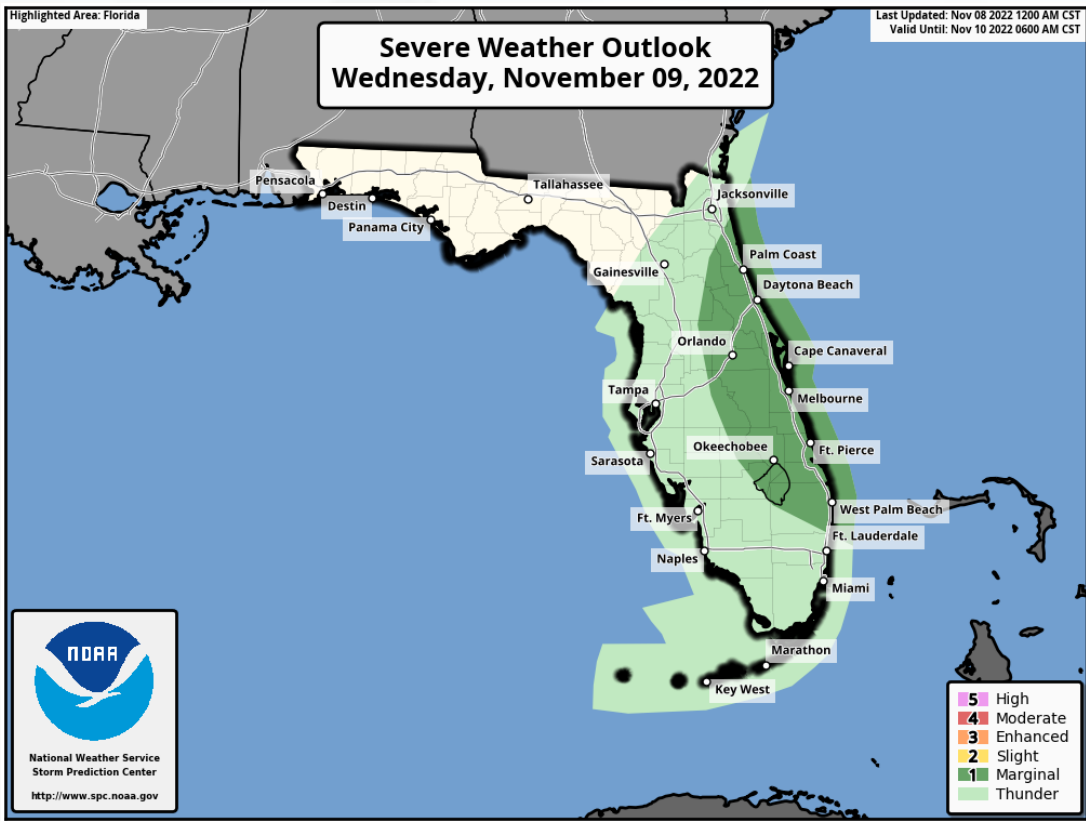
There is the potential for some rises on  
Central Florida rivers.

<https://www.weather.gov/erh/mmefs?Lat=32.491230287947594&Lon=-83.49609375&Zoom=6&Refresh=0&Model=NAEFS>



# Severe Weather Outlook

## From the Storm Prediction Center



Outer rain bands from Nicole will result in isolated tornadoes across the eastern Peninsula Wednesday and Thursday.

### Understanding Severe Thunderstorm Risk Categories

THUNDERSTORMS (no label)	1 - MARGINAL (MRGL)	2 - SLIGHT (SLGT)	3 - ENHANCED (ENH)	4 - MODERATE (MDT)	5 - HIGH (HIGH)
No severe* thunderstorms expected	Isolated severe thunderstorms possible	Scattered severe storms possible	Numerous severe storms possible	Widespread severe storms likely	Widespread severe storms expected
Lightning/flooding threats exist with all thunderstorms	Limited in duration and/or coverage and/or intensity	Short-lived and/or not widespread, isolated intense storms possible	More persistent and/or widespread, a few intense	Long-lived, widespread and intense	Long-lived, very widespread and particularly intense





# Key Messages

## From the National Hurricane Center



### Key Messages for Tropical Storm Nicole

#### Advisory 7: 4:00 PM EST Tue Nov 08, 2022



1. Hurricane conditions and a dangerous storm surge are expected in portions of the northwestern Bahamas on Wednesday, where a Hurricane Warning is in effect.

2. Hurricane conditions are expected across portions of the coast of southeast and east-central Florida beginning late Wednesday or Wednesday night, where a Hurricane Warning is in effect. Tropical storm conditions are expected in the Tropical Storm Warning areas in Florida and Georgia beginning early Wednesday.

3. A dangerous storm surge is expected along much of the east coast of Florida and portions of coastal Georgia where a Storm Surge Warning is in effect. The storm surge will be accompanied by large and damaging waves. Residents in the warning area should listen to advice given by local officials.

4. Do not focus on the exact track of Nicole since it is expected to be a large storm with hazards extending well to the north of the center, outside of the forecast cone. These hazards are likely to affect much of the Florida peninsula and portions of the southeast United States.

5. Nicole will produce heavy rainfall Wednesday and Thursday across the Florida Peninsula. Flash and urban flooding will be likely across portions of the Florida Peninsula along with possible renewed river rises on the St. Johns River. On Friday and Saturday, flash, urban and small stream flooding will be possible in the Southeast through the Mid-Atlantic and central Appalachians.



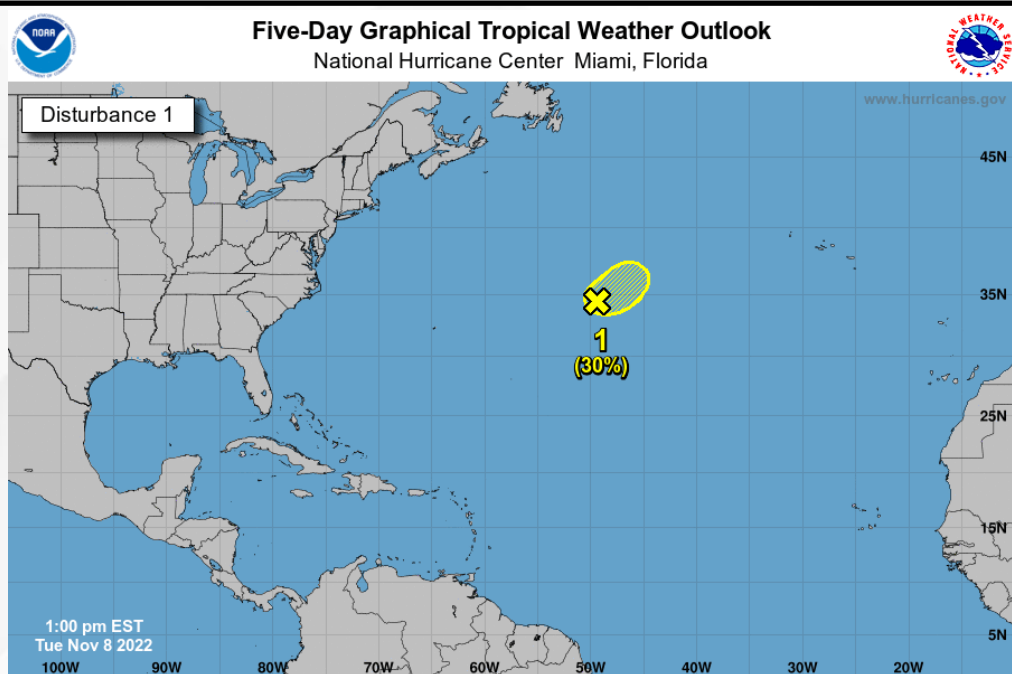
For more information go to [hurricanes.gov](https://hurricanes.gov)

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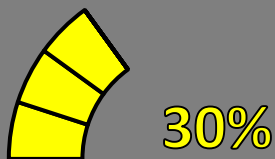


# Tropical Weather Outlook

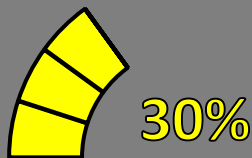
Invest 97L-Central Subtropical Low ([LINK](#))



Current Disturbances and Five-Day Cyclone Formation Chance:  
Tropical or Sub-Tropical Cyclone: ○ Depression ○ Storm ○ Hurricane  
○ Post-Tropical Cyclone or Remnants  
X < 40% X 40-60% X > 60%



48 Hour Formation



5 Day Formation

Shower activity associated with an area of low pressure located about 875 miles east of Bermuda has become a little better organized today. However, upper-level winds are not conducive for significant additional development, and the low is expected to merge with a cold front on Wednesday. *Invest 97L poses no threat to Florida.*





# Summary

## Tropical Storm Nicole:

- Nicole continued to increase in organization and intensity as was deemed a tropical storm at 10 am on Tuesday.
- At 4pm EST Tuesday, the center of Tropical Storm Nicole was located approximately 411 miles east of Vero Beach, Florida, and moving west-southwest near 10 mph.
- A west-southwest motion is expected to occur tonight through Wednesday afternoon, followed by a turn toward the northwest and north-northwest on Thursday and Thursday night as it crosses the central and northern Florida Peninsula.
- Maximum sustained winds have increased to 65 mph, and Nicole is forecast to be a hurricane on Wednesday while it is moving near the northwestern Bahamas and approaching the East Coast of Florida. Nicole is predicted to be a hurricane upon landfall in Florida.
- Gradual weakening is expected after landfall, but Nicole is expected to remain a large tropical storm during its trek across Florida.

## Florida Outlook:

- Nicole poses a risk for significant coastal flooding, strong winds, storm surge, heavy rain and isolated tornadoes along much of the Florida East Coast.
- Due to the large wind field of Nicole, strong wind gusts may be felt across the entire Florida Peninsula and Florida Big Bend on Wednesday and Thursday.
- A Hurricane Warning has been issued for 6 Florida East Coast counties, with Tropical Storm Watches and Warnings in effect for 48 additional counties across the Peninsula and Big Bend. Tropical Storm and Hurricane conditions could begin on Wednesday.
- Elevated tides, ocean swells, and strong winds will push water upstream through the St. Johns, leading to coastal flooding along the river.
- Deteriorating beach conditions can be expected across the East Coast as a result of elevated tides and wave heights of 10-20'.
- A Storm Surge Warning is in effect along the entire Florida East Coast north of North Palm Beach, as well as from the mouth of the St. Johns River to Georgetown, Florida. Storm surge values of 3-5' are forecast. A Storm Surge Watch is in effect south of North Palm Beach to Hallandale Beach, Florida and along the Florida Nature Coast between the Anclote River and mouth of the Ochlockonee River where surge heights could reach 2-4 feet.
- Rainfall amounts of 2-6" are possible across much of the Florida Peninsula, leading to a slight risk of flash flooding and rises on local rivers. A Flood Watch is in effect for 27 Peninsula Counties.
- Isolated tornadoes are possible in the outer bands of Nicole and could affect eastern portions of the Florida Peninsula on Wednesday and Thursday.

The next briefing packet will be issued Wednesday morning. 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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