



Tropical Update



5:00 AM EST

Tuesday, November 8, 2022

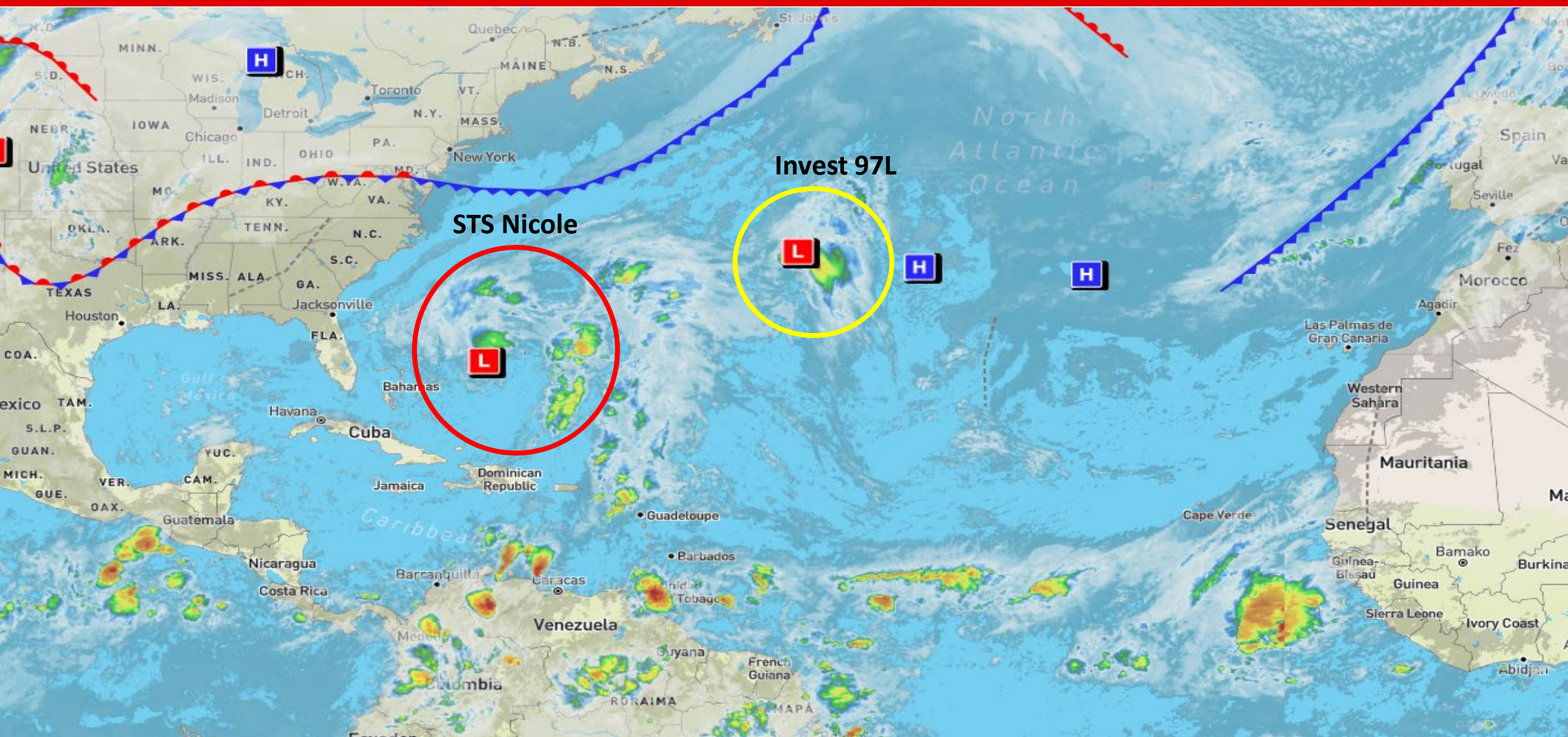
Subtropical Storm Nicole & Invest 97L (30%)

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

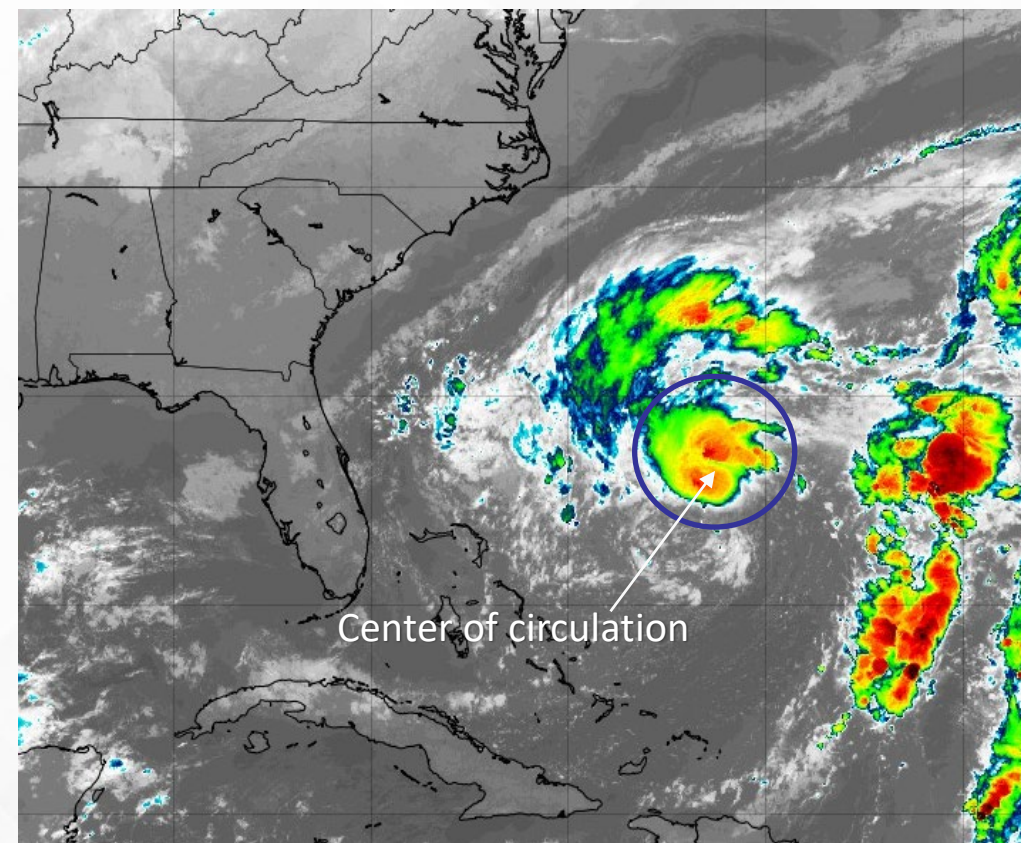




Subtropical Storm Nicole

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

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

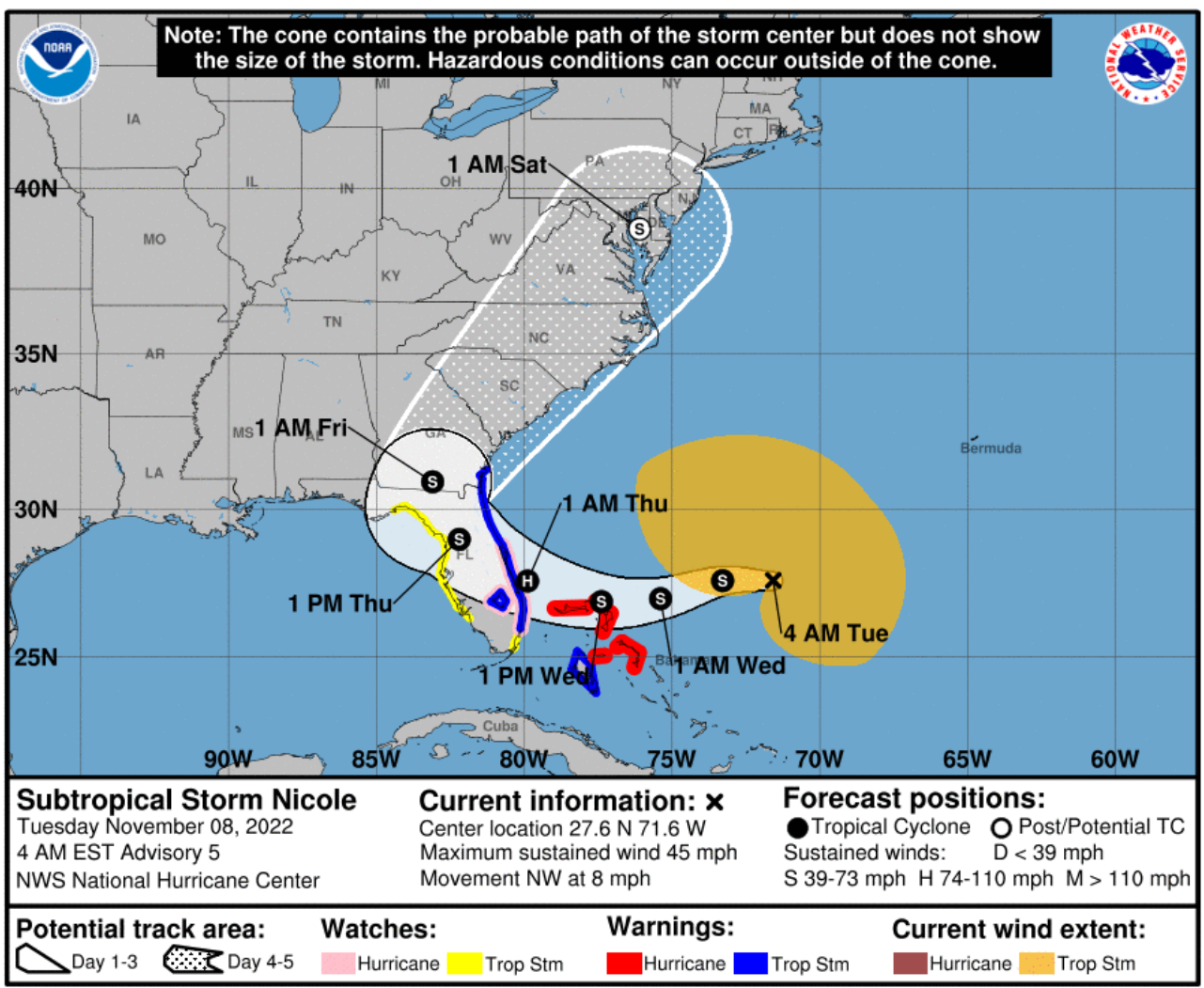


Overview/Recent Changes: With the 4 AM EST Advisory, Tropical Storm Watches have been issued for portions of the West Coast of Florida north of Bonita Beach to the Ochlockonee River. Nicole is forecast to make a transition to a tropical storm today, and continue to strengthen over the southwestern Atlantic. Impacts from Nicole can be expected across much of the Florida Peninsula this week. There is a risk of life-threatening storm surge, significant coastal erosion, damaging winds, flooding and isolated tornadoes from this system.



Forecast Cone

Subtropical Storm Nicole



Location: 522 miles east of West Palm Beach, FL

Maximum Winds: 45 mph

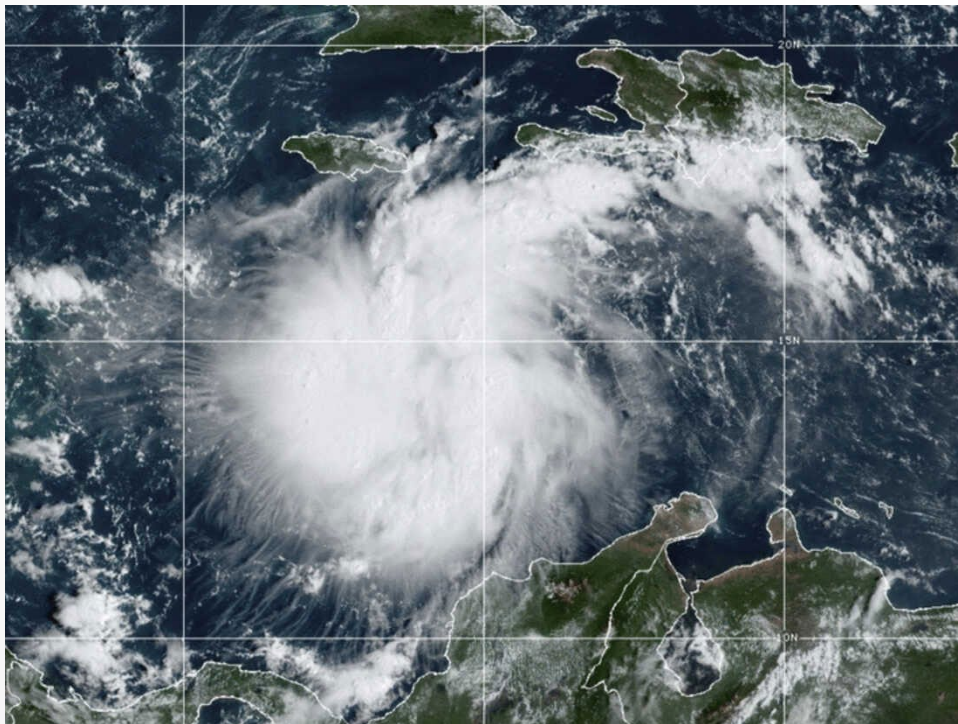
Movement: NW at 8 mph

Nicole appears to be beginning its transition to a tropical storm, with the low-level center now embedded beneath concentrated thunderstorm activity. The system still has a broad cloud and wind field, with bands of convection extending over 500 miles to the east of the center and winds expanding significantly on the northwestern side of the center. Nicole is expected to make a transition to a tropical storm later today and begin strengthening, and it is forecast to be at or near hurricane strength by Wednesday and 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 East Coast of Florida Wednesday night, and move across Central and Northern Florida Thursday and Thursday night.

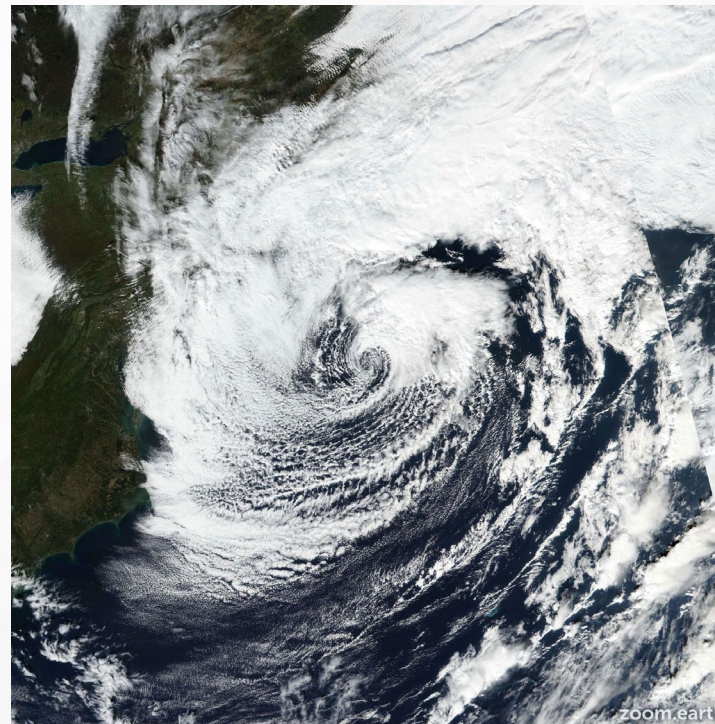
What is a Subtropical Storm?

- Has characteristics of both a tropical and non-tropical system.
- A subtropical storm is generally more disorganized than a tropical system.
- Subtropical systems have the strongest winds and storms far from the center.

Tropical Storm



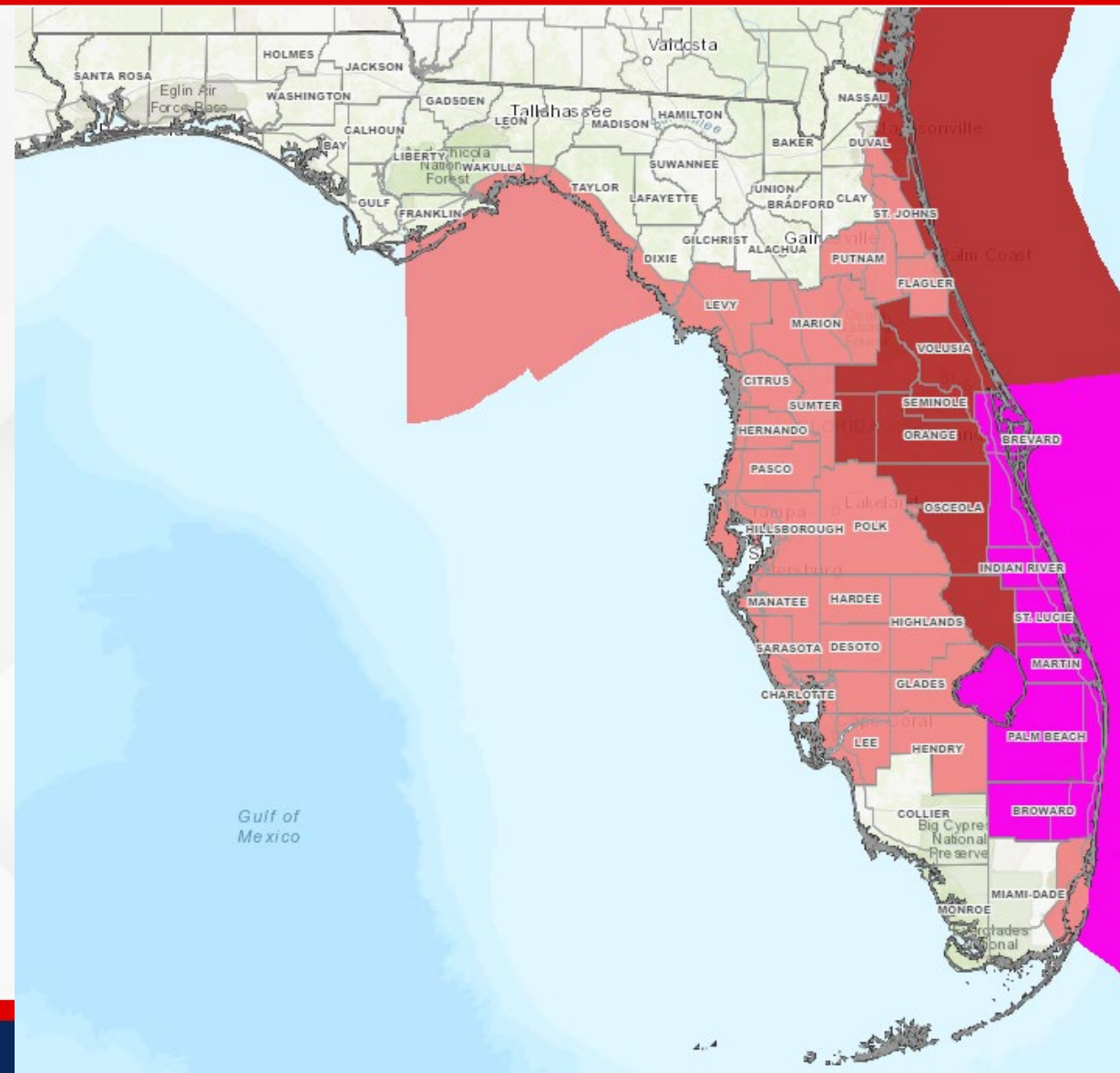
Subtropical Storm





Active Tropical Watches/Warnings

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- **Hurricane Watch**
 - Counties: Broward, Palm Beach, Martin, St. Lucie, Indian River, Brevard
- **Tropical Storm Warning**
 - Counties: Coastal Nassau, Coastal Duval, Coastal St. Johns, Coastal Flagler, Volusia, Lake, Seminole, Orange, Osceola, Brevard, Indian River, Okeechobee, St. Lucie, Martin, Palm Beach, Broward
- **Tropical Storm Watch**
 - Counties: Coastal Miami-Dade, Hendry, Lee, Glades, Charlotte, Sarasota, Desoto, Highlands, Hardee, Manatee, Hillsborough, Polk, Pinellas, Pasco, Hernando, Sumter, Citrus, Levy, Marion, Coastal Dixie, Coastal Taylor, Coastal Wakulla, Putnam, Inland Flagler, Inland St. Johns, Inland Clay, and Inland Duval



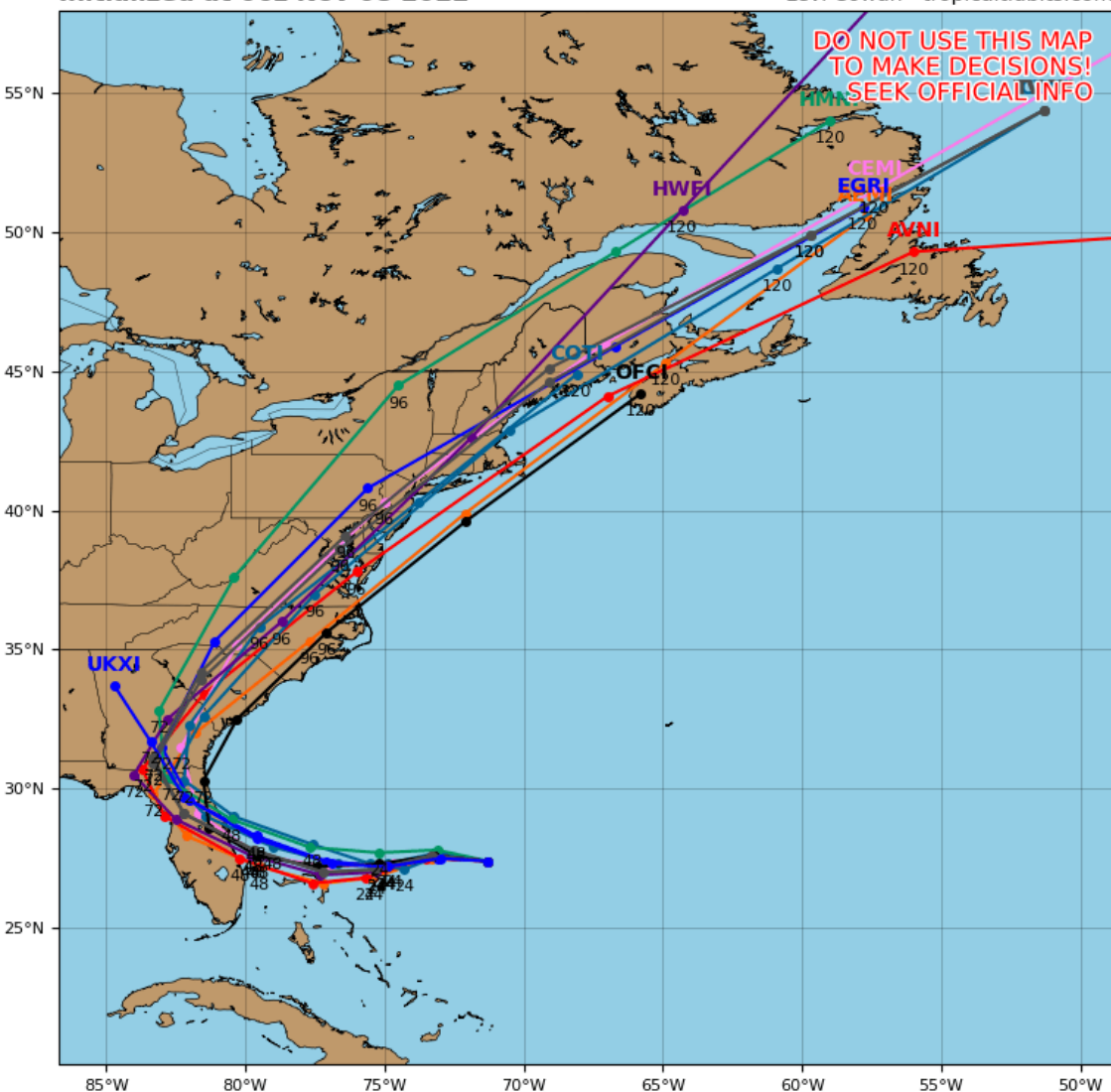
Model Forecasts – Next 5 Days

Subtropical Storm Nicole

Subtropical Storm NICOLE Model Track Guidance

Initialized at 06z Nov 08 2022

Levi Cowan - tropicaltidbits.com



Computer models are in good agreement on a track towards the Florida East Coast and landfall on Wednesday night or Thursday, but still in some disagreement on how far west Nicole will travel before being pulled quickly northeast across the northern Peninsula or eastern Florida Big Bend.

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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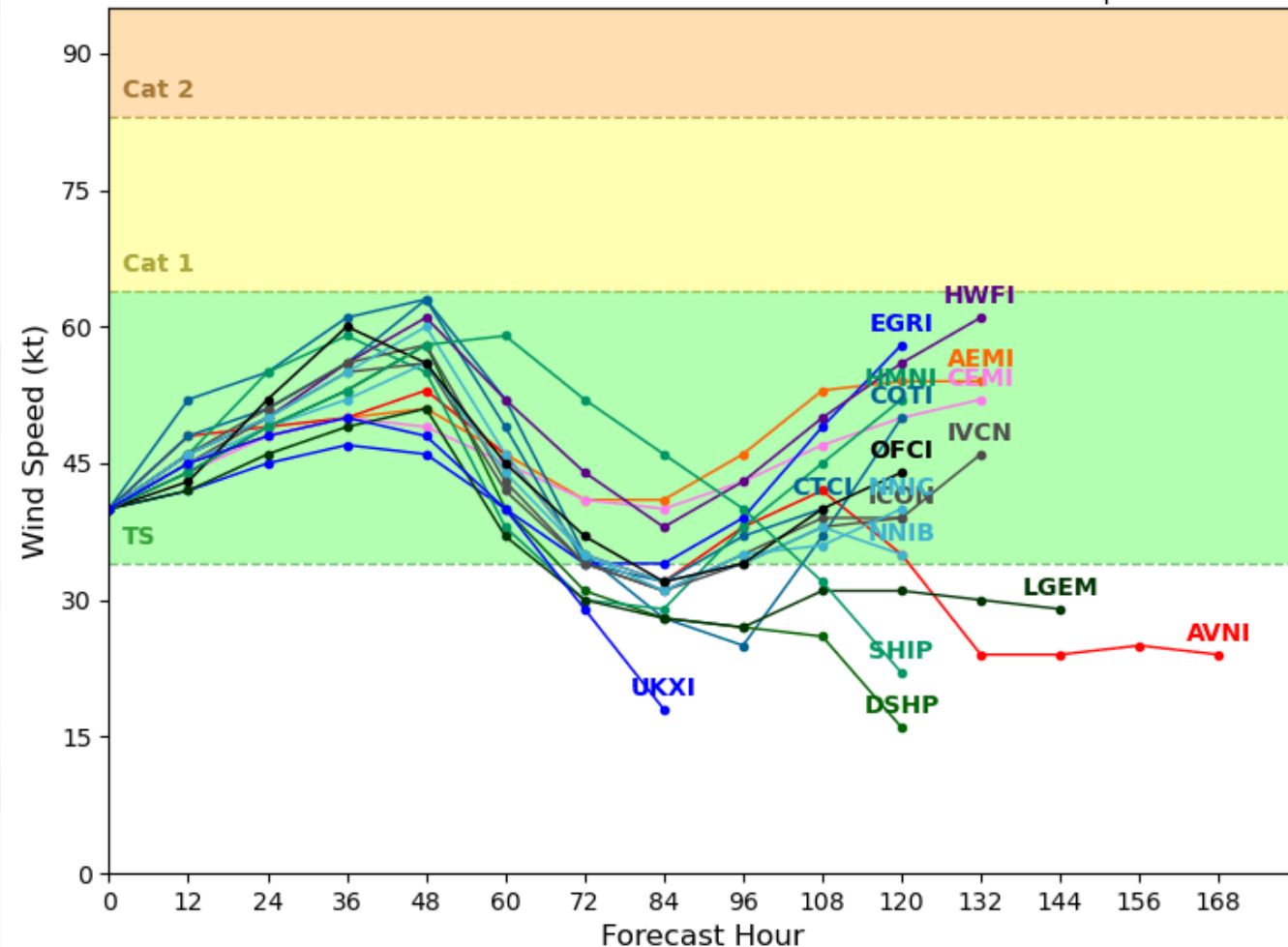
Model Forecast Intensity

Subtropical Storm Nicole

Subtropical Storm NICOLE Model Intensity Guidance

Initialized at 06z Nov 08 2022

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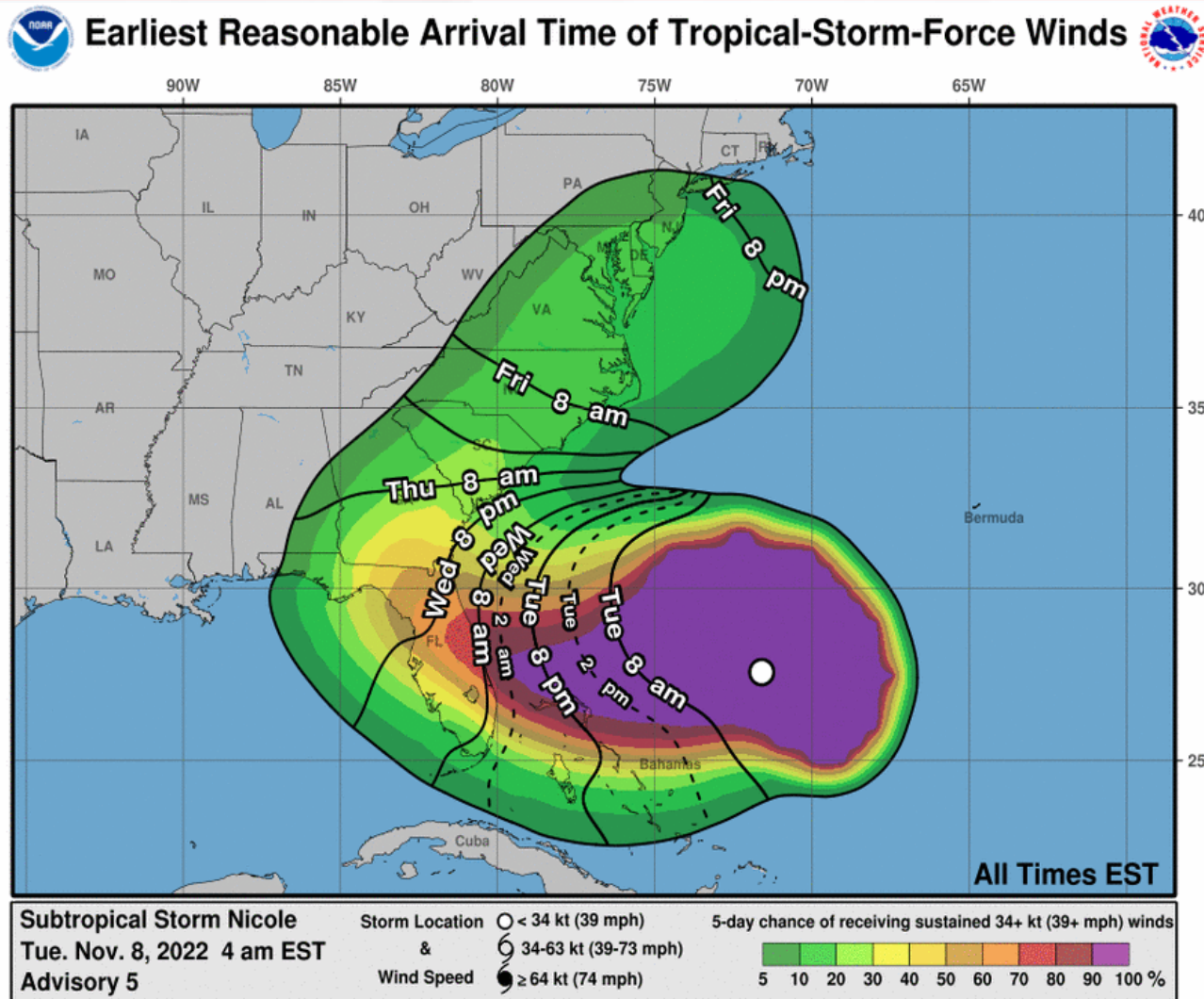
Continued strengthening and organization is forecast for Nicole given the favorable environment. Computer models are in decent agreement that Nicole will strengthen to at least a strong tropical storm or hurricane before landfall.

Some small strengthening is possible if the center of the storm emerges over the eastern Gulf of Mexico, but increasing wind shear should mitigate significant intensification.



Tropical Storm-Force Wind Probabilities

Subtropical Storm Nicole



Jacksonville – 49% **(+23)**

Orlando – 69% **(+28)**

Cocoa Beach – 82% **(+29)**

Ft. Pierce – 81% **(+19)**

West Palm Beach – 65% **(-1)**

Miami – 23% **(-18)**

Key West – 7% **(-9)**

Ft. Myers – 22% **(-16)**

Tampa – 50% **(+4)**

Cedar Key – 53% **(+13)**

Tallahassee – 33% **(+10)**

Apalachicola – 26% **(-3)**

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

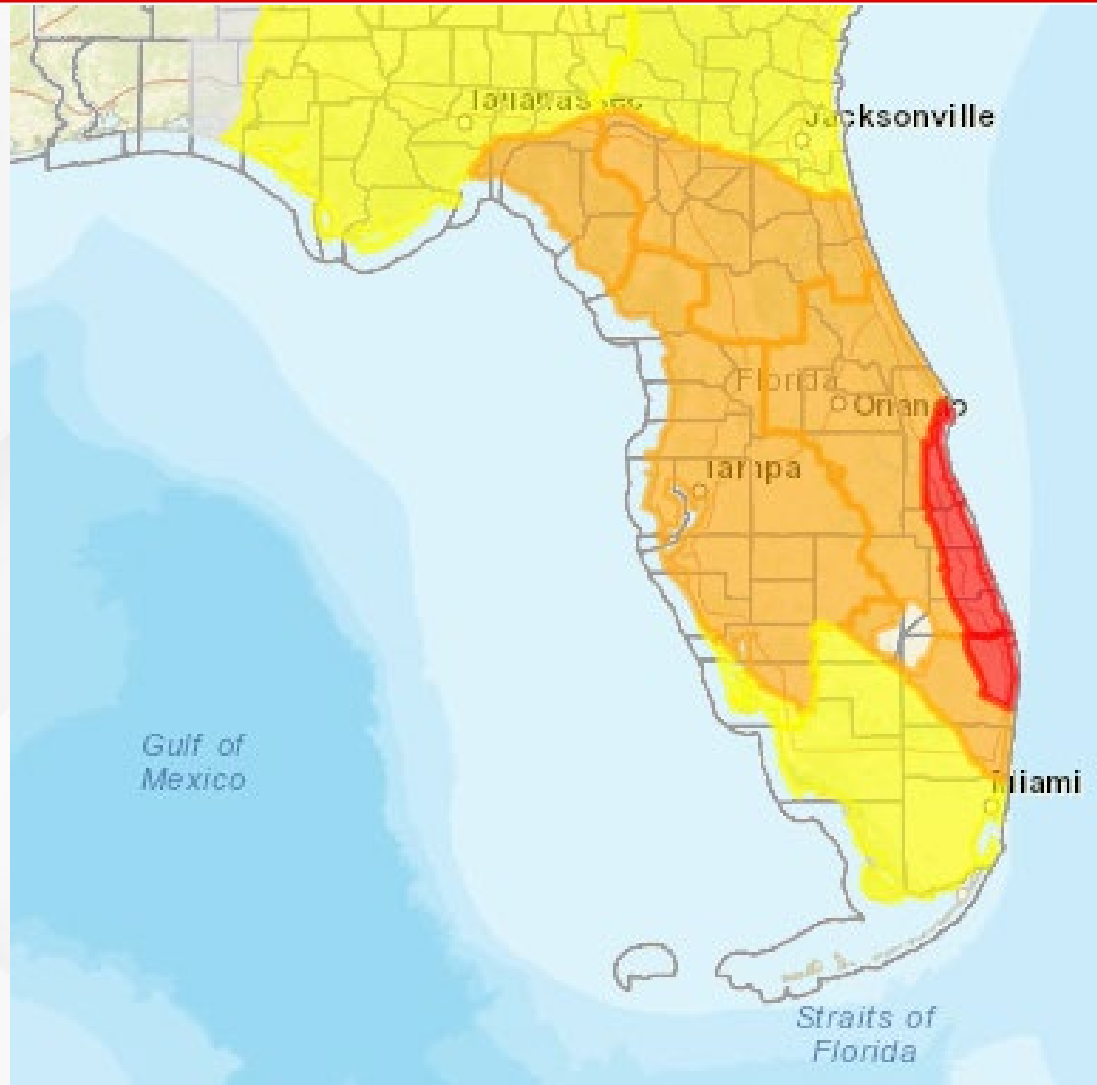
Note: A reduction in percentages does not necessarily mean a lower threat. These probabilities are dependent on the track, wind radii and intensity and may fluctuate up and down.

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

Subtropical Storm Nicole



The greatest damaging wind threat is mainly along the Space and Treasure Coasts. The overall wind threat has increased across the Florida Peninsula and has expanded northwestward to the Panhandle.

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

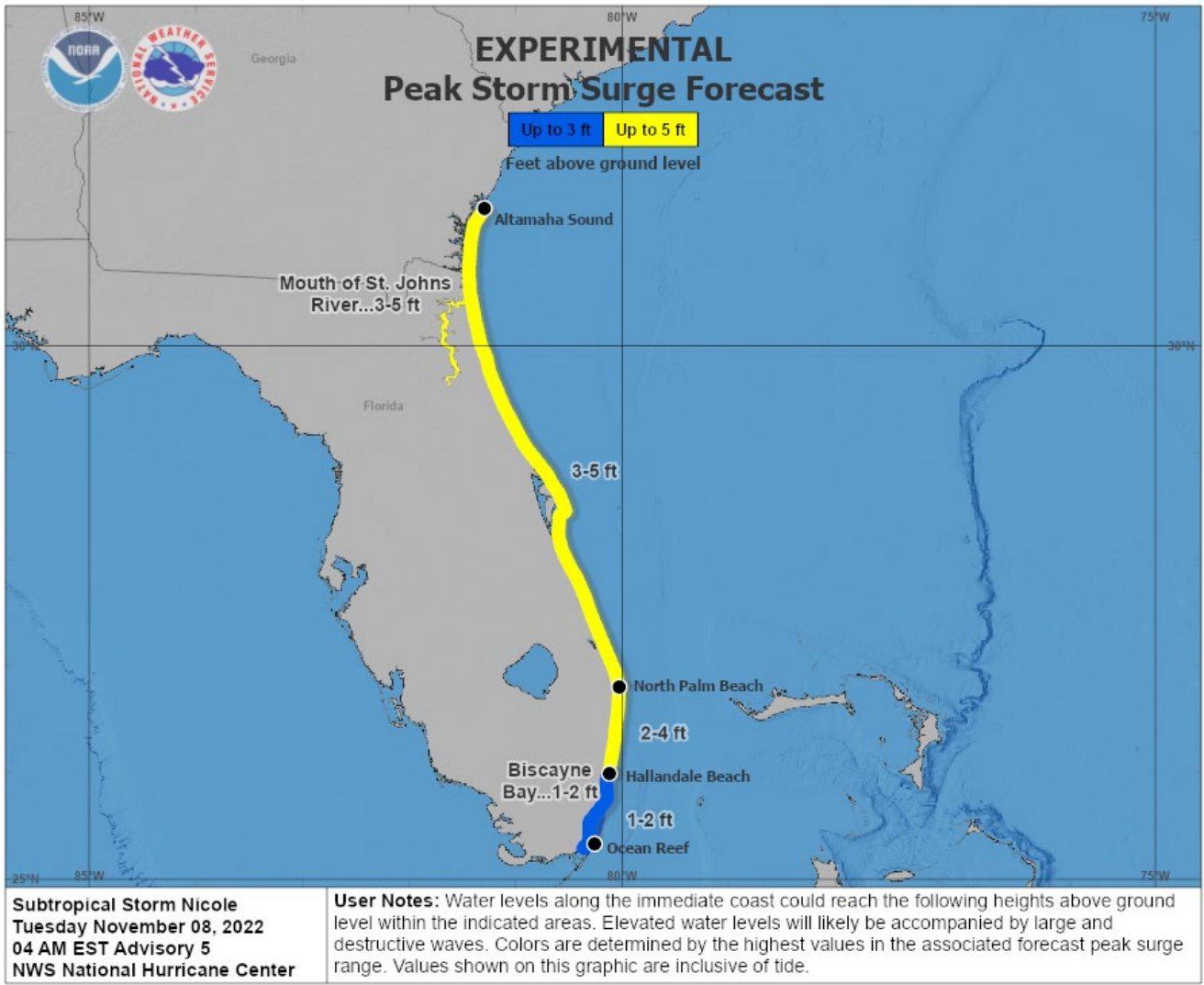
Click on “Threats and Impacts” Tab

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

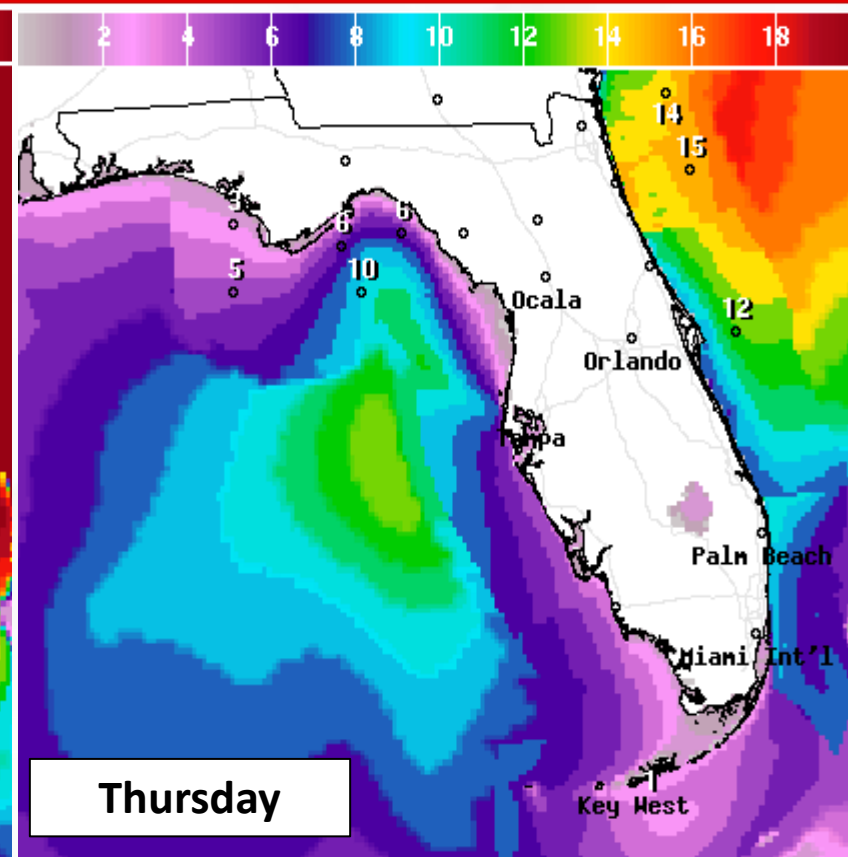
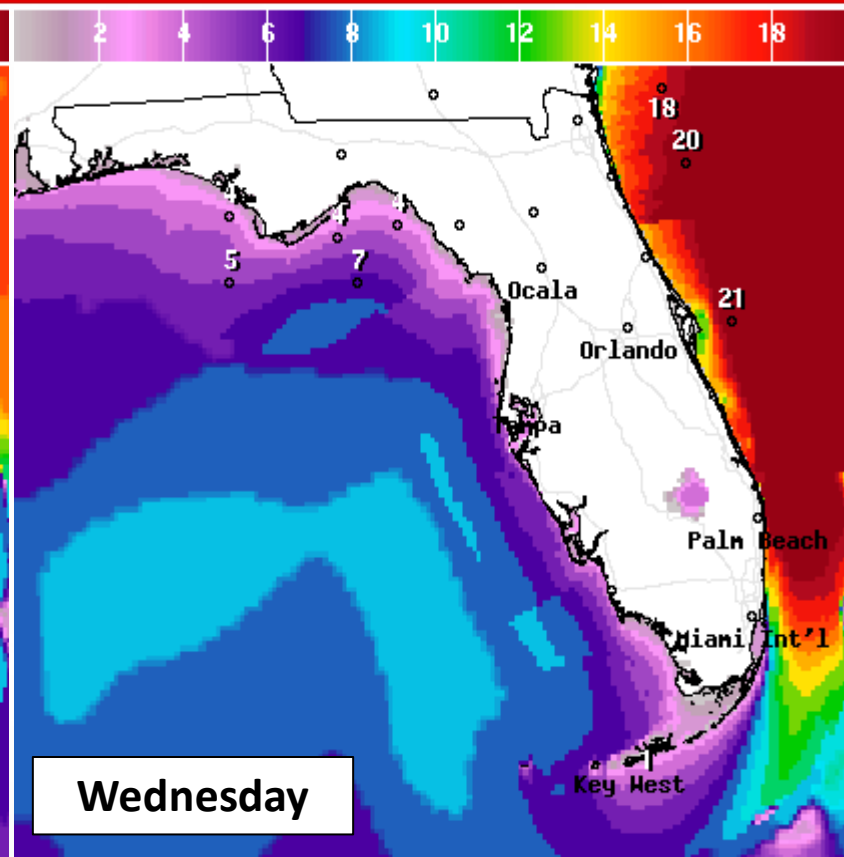
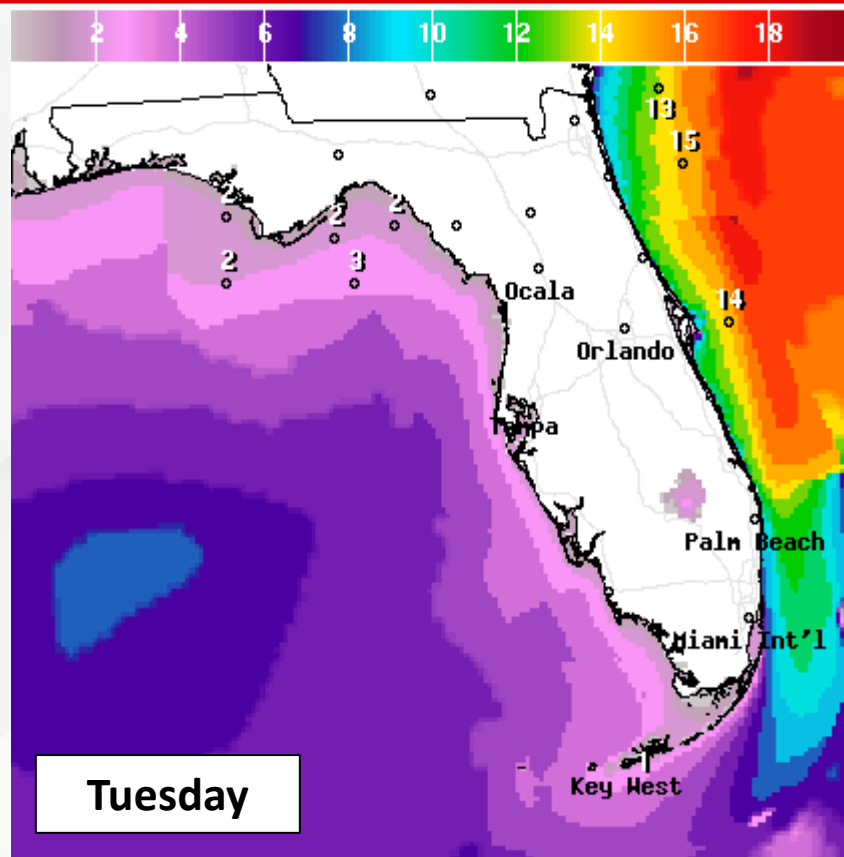
In Effect Until Further Notice





Wave Heights & Ocean Swells

Tuesday, Wednesday, & Thursday



An ocean swell along the east coast will continue to grow throughout the week, resulting in an increase in wave heights. Breaking waves of 8-14' will be possible today, and 10-18' Wednesday. This may result in moderate to severe coastal erosion at times of high tide and a high risk of rip currents. On Thursday, wave heights will gradually initiate the downward trend, but lingering long-period swell will continue dangerous marine conditions.



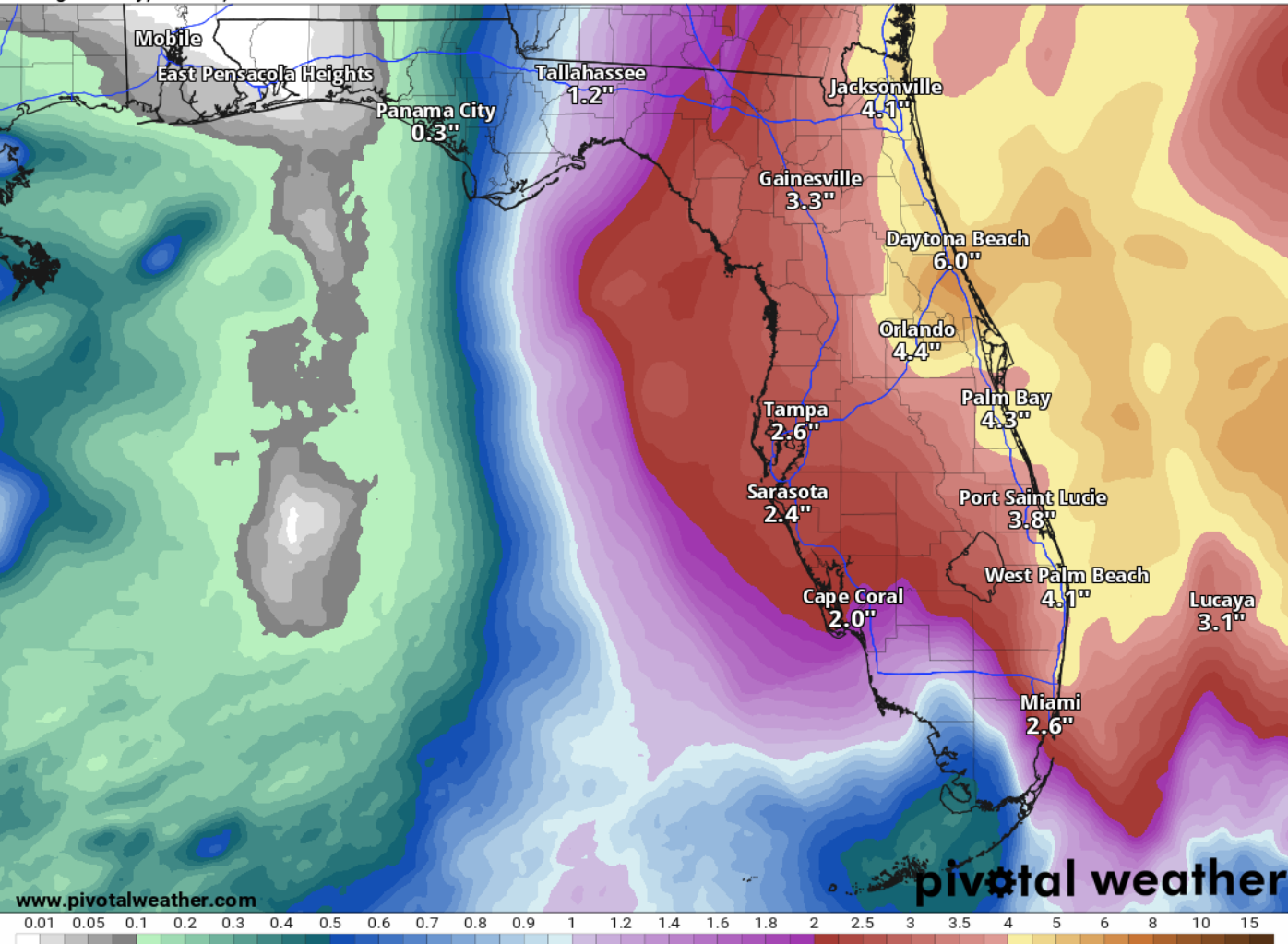
7-Day Forecast Rainfall

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 are possible, and these amounts could change depending on the forecast track, intensity and structure of the storm.



Flash Flood Outlooks

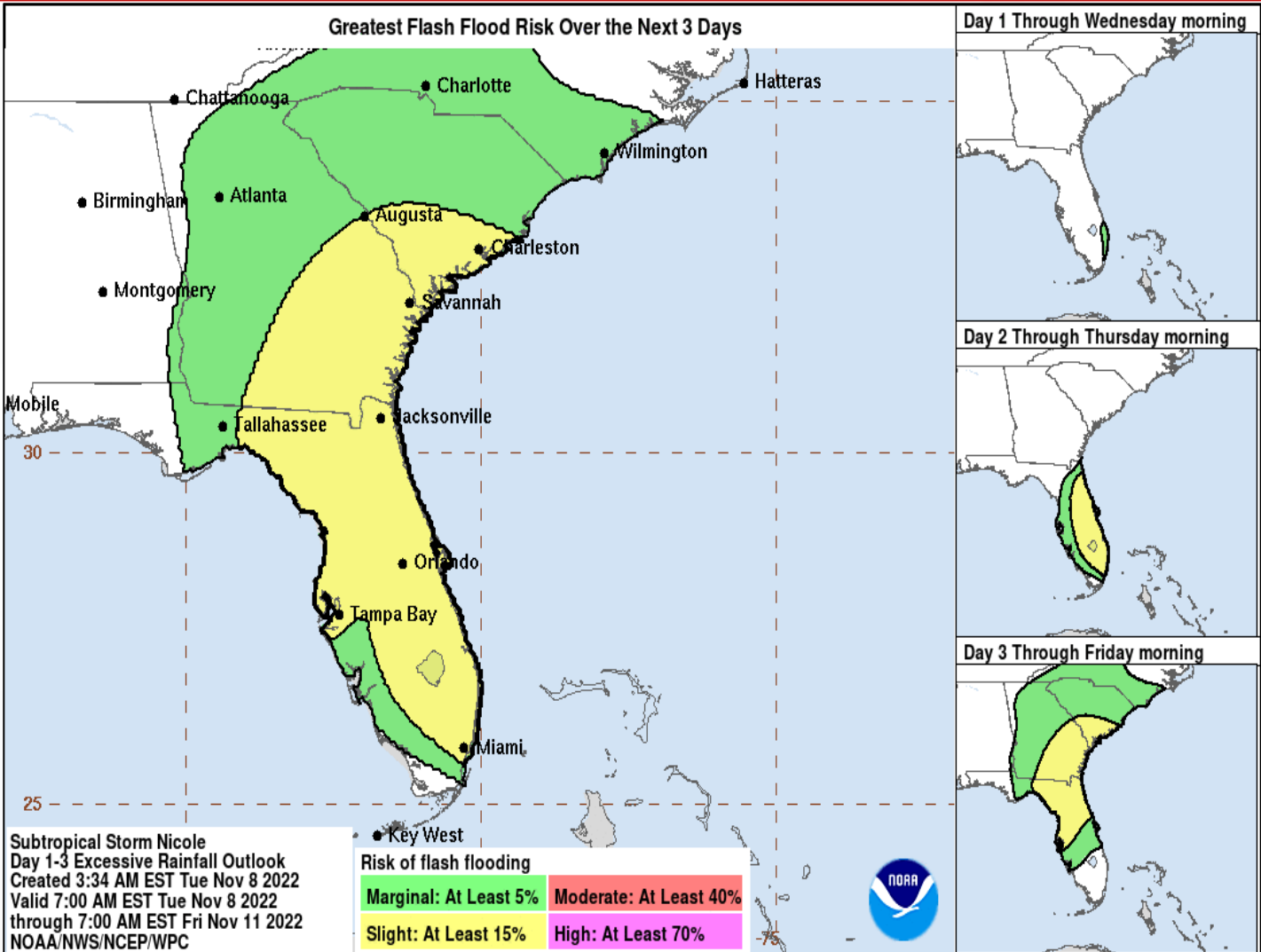
From the Weather Prediction Center

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.
@NWSWPC				
Flash flooding near me?	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 the Treasure Coast and Palm Beaches.

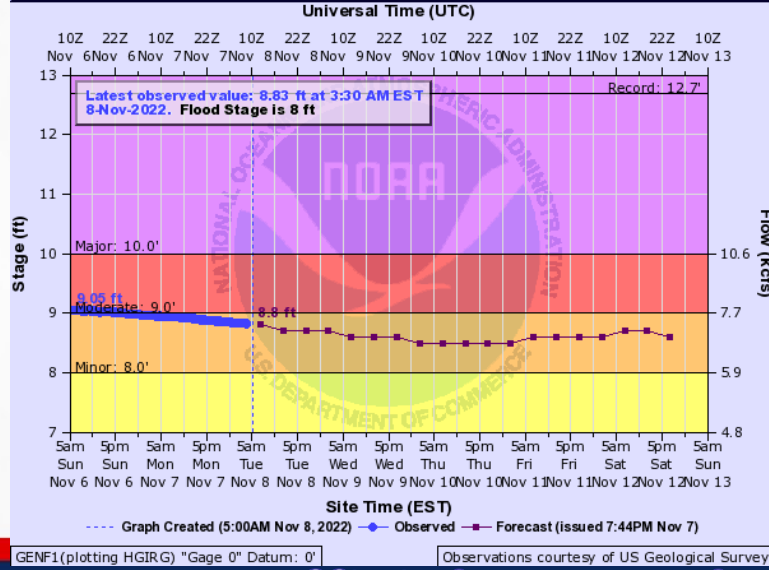
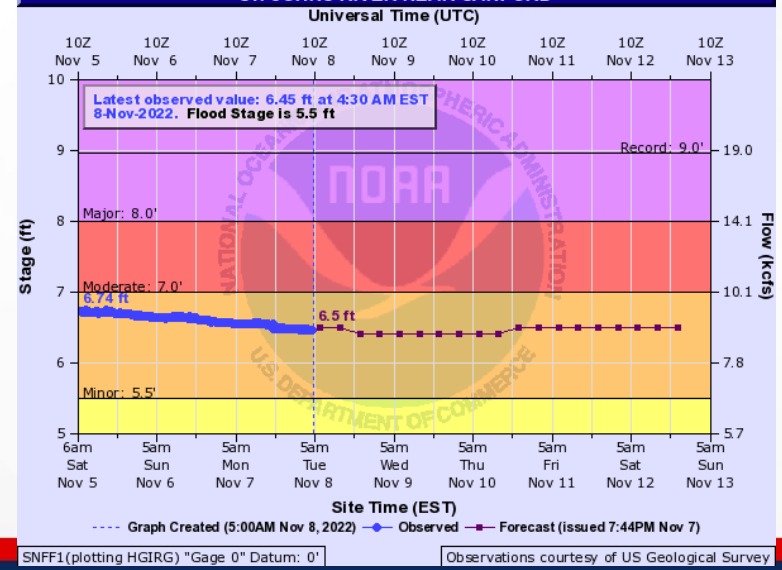
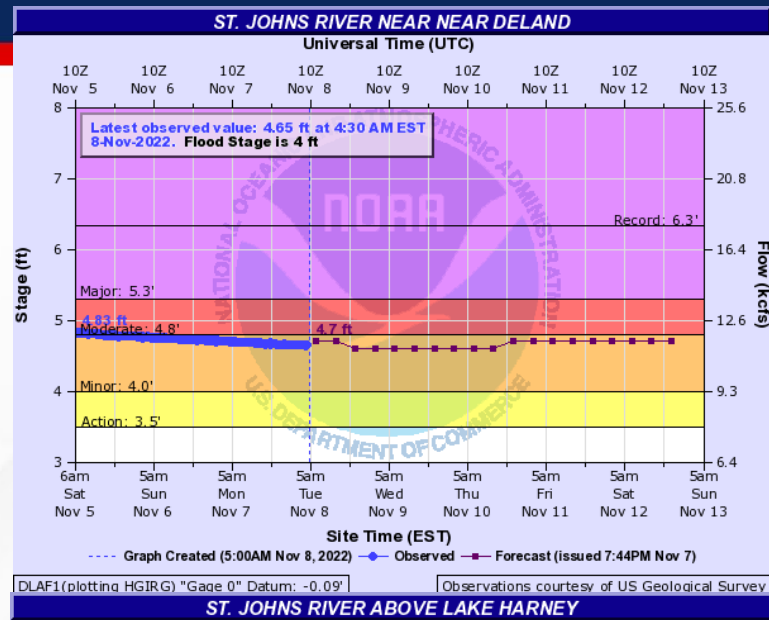
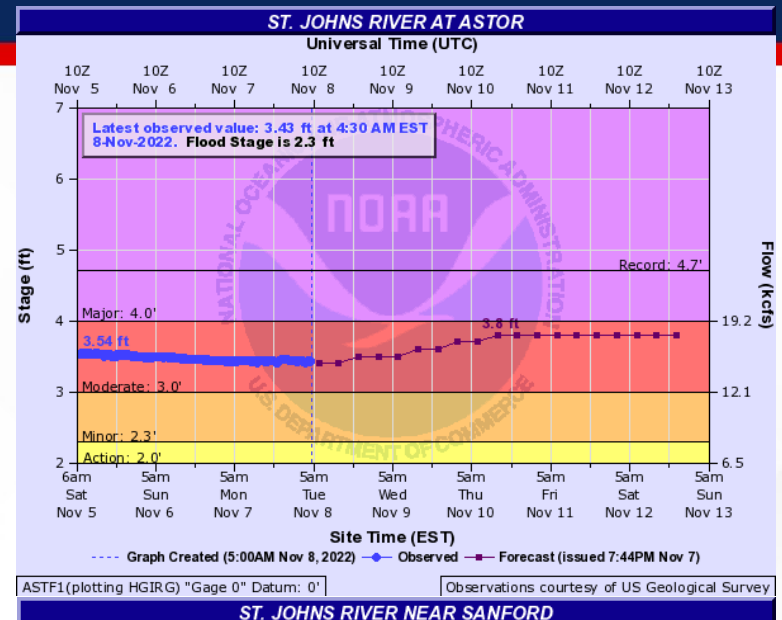
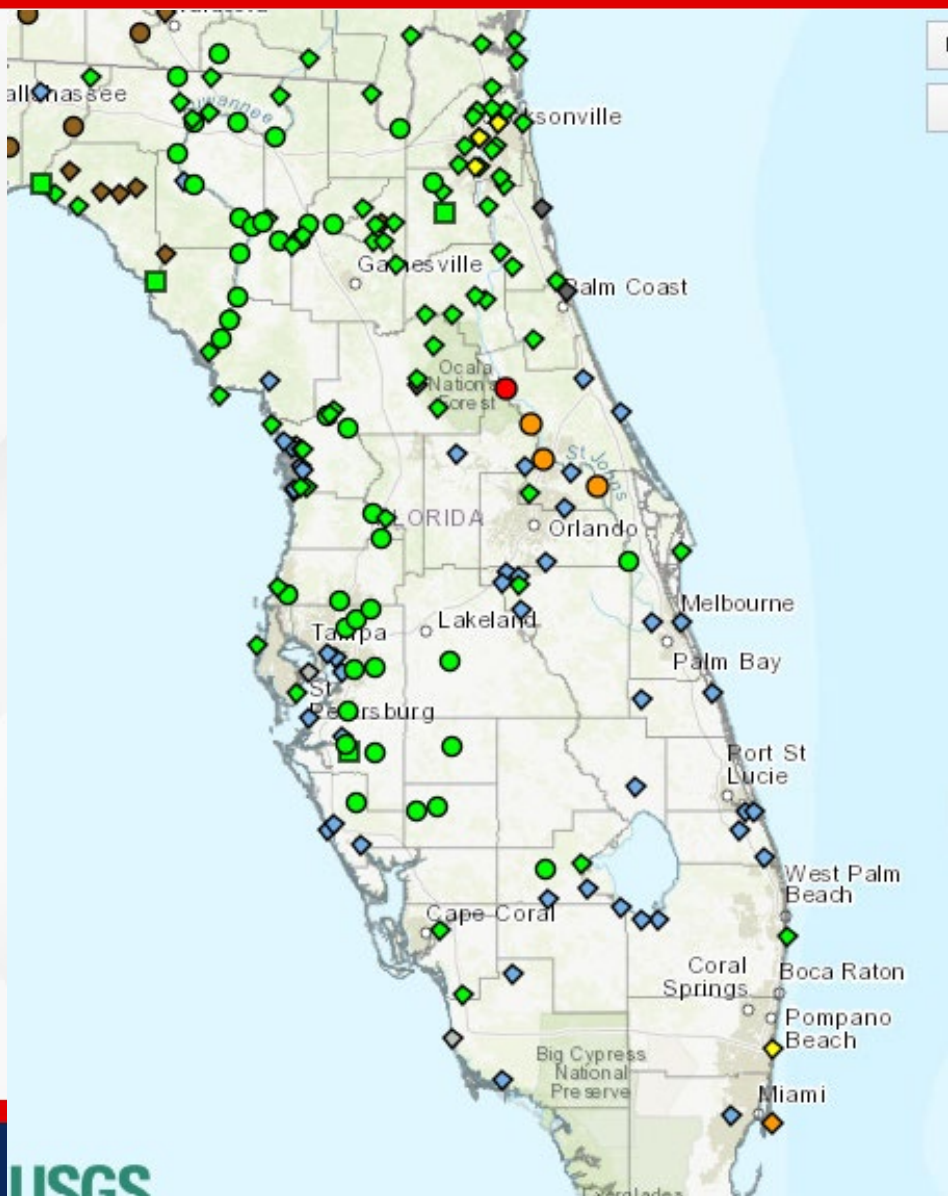
By Friday, the threat for flash flooding looks to expand across the West Coast, Big Bend, and Northeast Florida.





Current River Status & Forecast Hydrographs

As of Tuesday Morning



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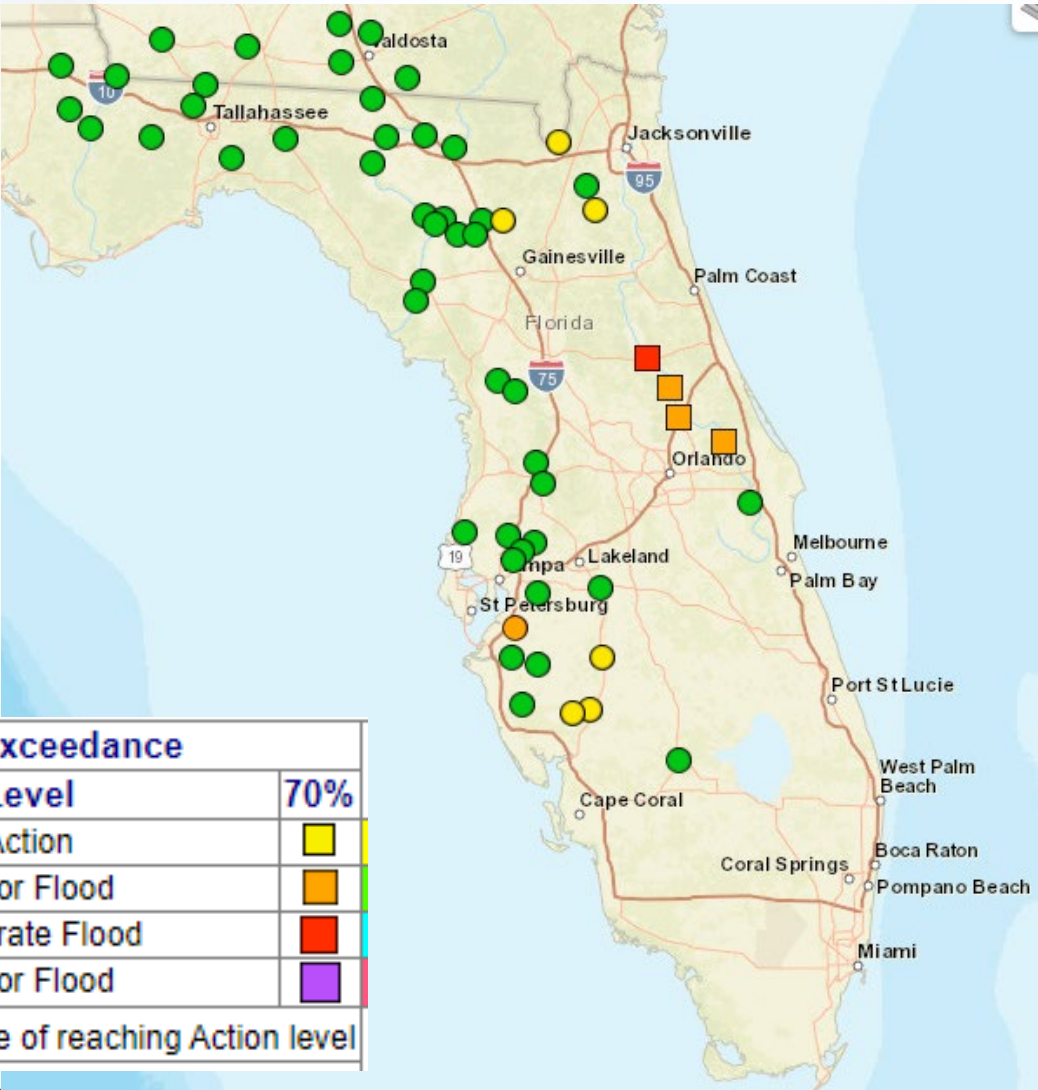


Possible River Flooding

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		



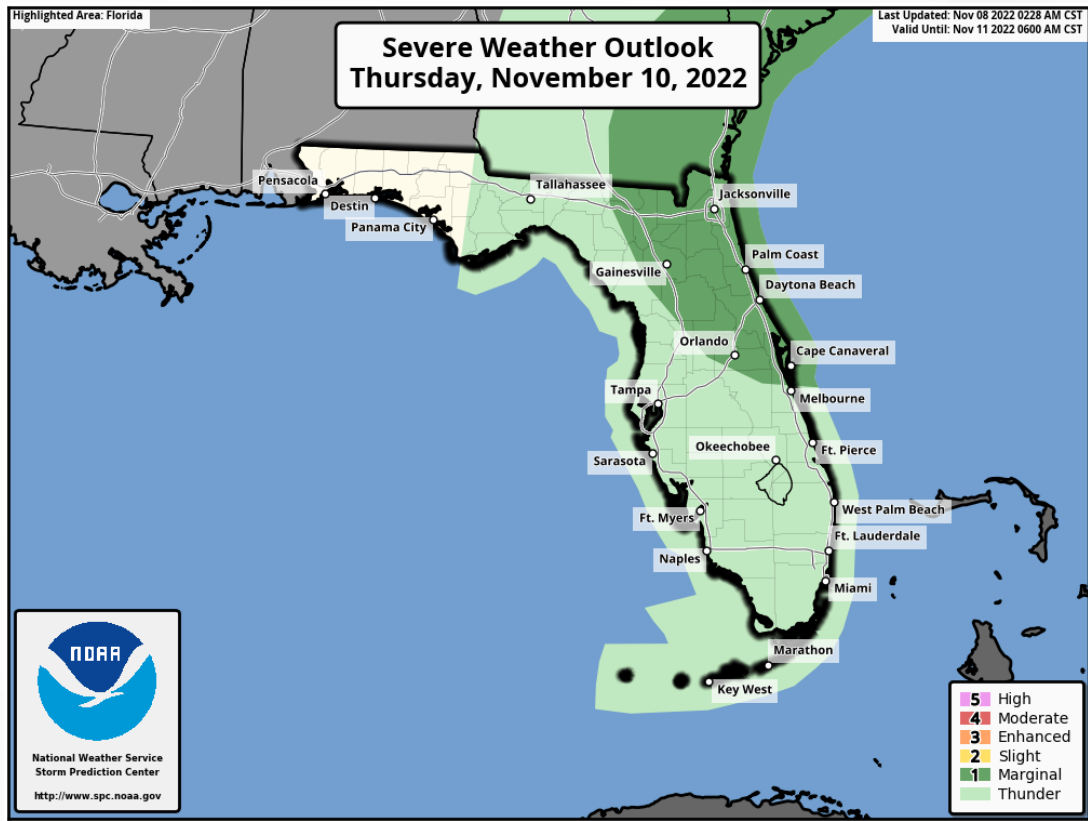
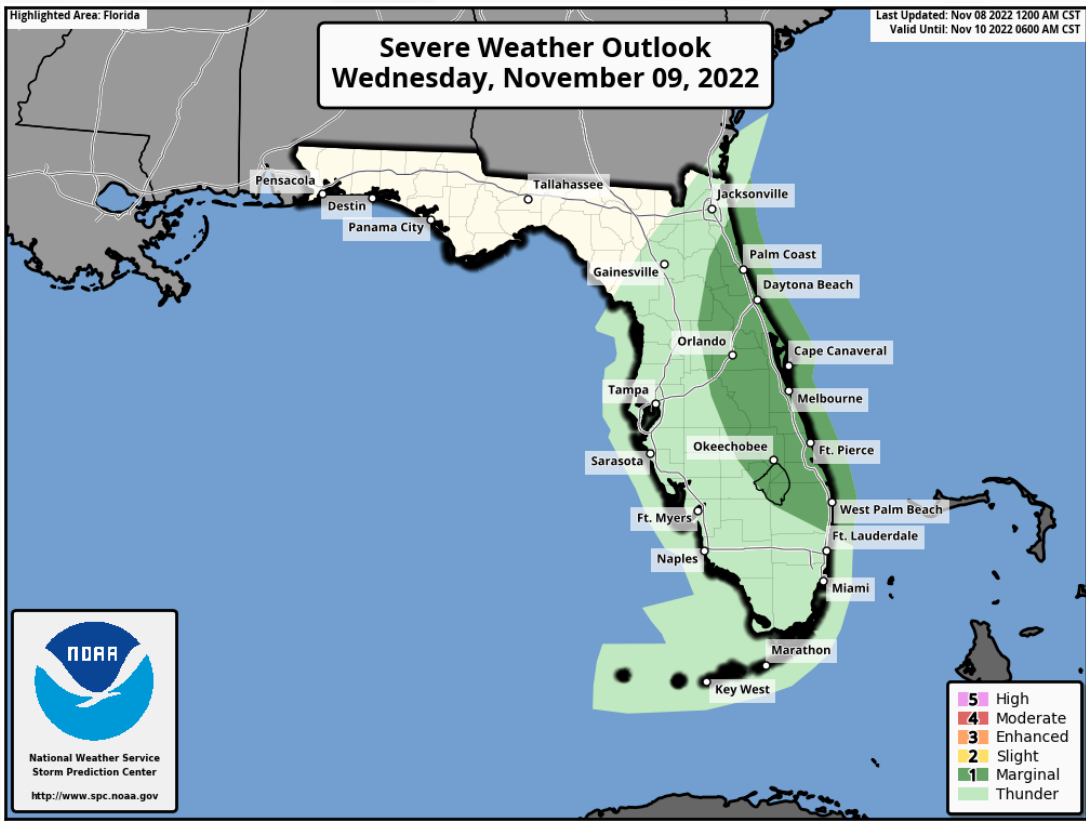
There is the potential for some rises on
Central Florida rivers.

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



Severe Weather Outlooks

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 Subtropical Storm Nicole

Advisory 5: 4:00 AM EST Tue Nov 08, 2022



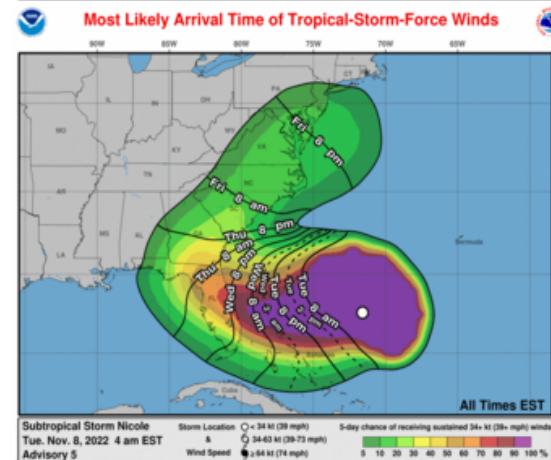
1. Hurricane conditions and a dangerous storm surge are expected in portions of the northwestern Bahamas on Wednesday, where a Hurricane Warning is in effect.

2. Hurricane conditions are possible across portions of the coast of southeast and east-central Florida beginning late Wednesday or Wednesday night, where a Hurricane Watch 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 U.S.

5. Nicole will produce heavy rainfall Wednesday and Thursday across the Florida Peninsula. Flash and urban flooding will be possible across portions of the Florida Peninsula along with renewed river rises on portions of the St. Johns River. Flash, urban and small stream flooding will be possible in southeast Georgia and portions of South Carolina Thursday into Thursday night.



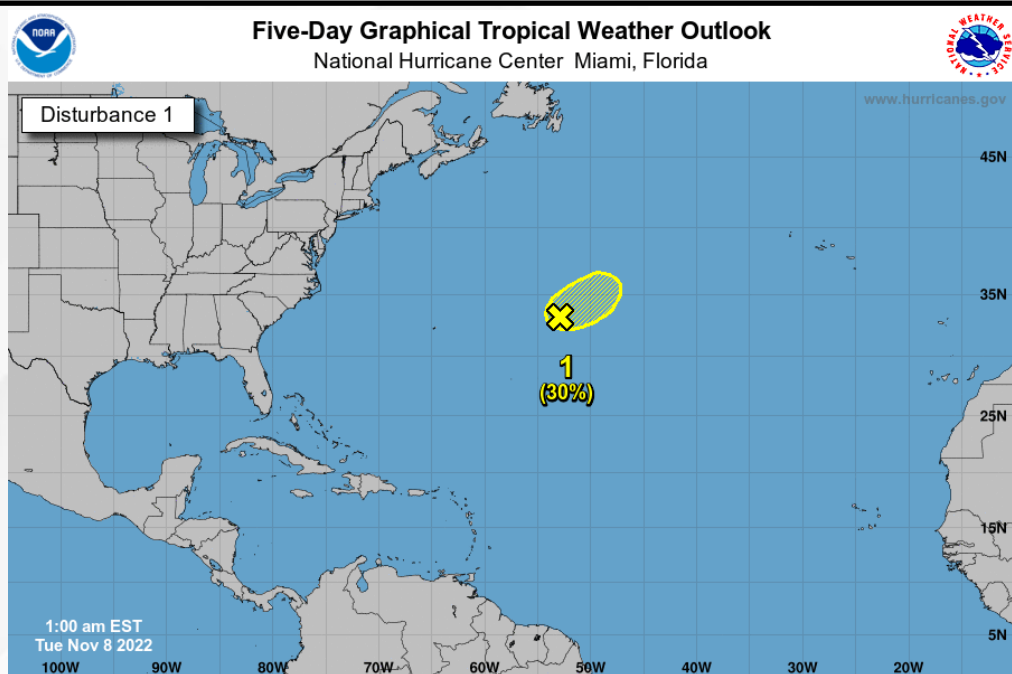
For more information go to hurricanes.gov

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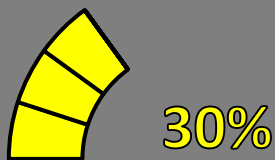


Tropical Weather Outlook

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%



30%

48 Hour Formation



30%

5 Day Formation

An area of low pressure, located about 650 miles east of Bermuda, is producing disorganized showers and thunderstorms to the east of the center. The system is accelerating northeastward toward cooler waters, while remaining in a region of strong upper-level winds. Consequently, the chance for significant development is quickly diminishing.

Invest 97L poses no threat to Florida.



Summary

Invest 97L (Central Subtropical Low):

- An area of low pressure, located about 650 miles east of Bermuda, is producing disorganized showers and thunderstorms to the east of the center.
- The system is accelerating northeastward toward cooler waters, while remaining in a region of strong upper-level winds. Consequently, the chance for significant development is quickly diminishing.

Subtropical Storm Nicole:

- Nicole is located 522 miles east of West Palm Beach, Florida, and moving northwest near 8 mph.
- A turn toward the west and west-southwest is forecast today and tonight, and that motion should continue through Wednesday. A turn toward the northwest and north-northwest is expected Thursday and Thursday night. On the forecast track, the center of Nicole will approach the East Coast of Florida Wednesday night, and move across Central and Northern Florida Thursday and Thursday night.
- Nicole is expected to make a transition to a tropical storm later today and begin strengthening.
- The system is forecast to be near or at hurricane strength Wednesday and Wednesday night while it is moving near the northwestern Bahamas and approaching the East Coast of 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.
- 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 12-18'.
- A Hurricane Watch has been issued for 6 Florida East Coast counties, a Tropical Storm Warning has been issued for 16 Florida Counties, with Tropical Storm Watches in effect for 27 additional counties across the Peninsula and Big Bend. Tropical Storm and Hurricane conditions could begin on Wednesday.
- 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.

The next briefing packet will be issued Tuesday afternoon. For the latest information, please visit the [National Hurricane Center website](#).



Tropical Update

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Created by:

Caitlyn Gillespie, Deputy State Meteorologist

Caitlyn.Gillespie@em.myflorida.com

State Meteorological Support Unit

Florida Division of Emergency Management

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