

# TROPICAL STORM NICOLE

# **Current Watches and Warnings**

## **Hurricane Warning:**

- The Abacos, Berry Islands, Bimini, and Grand Bahama Island in the northwestern Bahamas
- Boca Raton to Flagler/Volusia County Line, Florida

#### **Tropical Storm Warning:**

- Bimini in the northwestern Bahamas
- Hallandale Beach Florida to Boca Raton, Florida
- Flagler/Volusia County Line, Florida to South Santee River, South Carolina
- North of Bonita Beach to Indian Pass, Florida
- Lake Okeechobee

#### Storm Surge Warning:

- North Palm Beach Florida to Altamaha Sound Georgia
- Mouth of the St. Johns River to Georgetown Florida
- Anclote River Florida to Ochlockonee River Florida

### **Hurricane Watch:**

- Hallandale Beach to Boca Raton Florida
- Lake Okeechobee

# Storm Surge Watch:

- Ochlockonee River to Indian Pass Florida
- South of North Palm Beach to Hallandale Beach Florida
- Altamaha Sound Georgia to South Santee River South Carolina

### **Tropical Storm Watch:**

- South of Hallandale Beach to north of Ocean Reef Florida

#### **Current Details from the National Hurricane Center**

COORDINATES: 26.5N 76.7W

LOCATION: 210 miles (340 km) East of West Palm Beach, Florida

WINDS: 70 mph (110 kph)

RADIUS OF TROPICAL STORM-FORCE WINDS: up to 460 miles (740 kph)

MOVEMENT: West at 12 mph (19 kph)

MINIMUM CENTRAL PRESSURE: 986 mbar

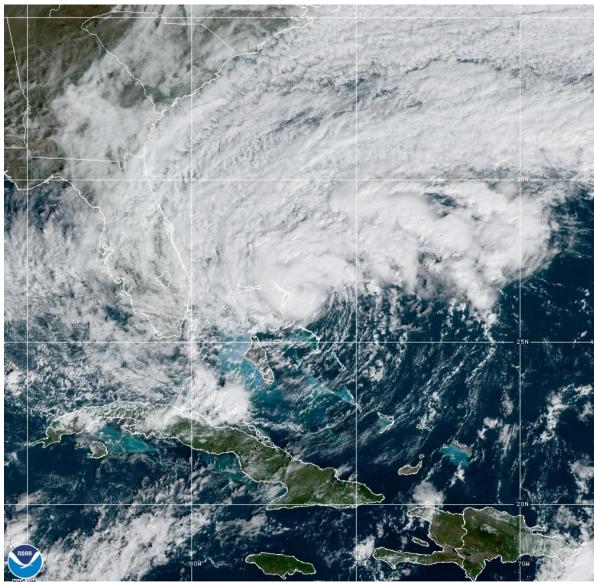
SAFFIR-SIMPSON SCALE RANKING: Tropical Storm

Cat Alert: TROPICAL STORM NICOLE

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# Latest Satellite Imagery



09 Nov 2022 14:40Z NOAA/NESDIS/STAR GOES-East GEOCOLOR

Source: NOAA / NASA



#### Discussion

Convection has increased in both coverage and organization near the center of Nicole, with a curved band or partial eyewall now present near the center. However, this has not yet resulted in any intensification, with reports from NOAA and Air Force Reserve Hurricane Hunter aircraft indicating the maximum winds are near 60 kt and the central pressure near 986 mb.

The aircraft and satellite data, along with radar data from the Bahamas show that Nicole is now moving westward with an initial motion of 265/10. This motion should bring the center across the Abacos and Grand Bahama in the northwestern Bahamas during the next several hours. Subsequently, a westward to west-northwestward motion should bring the center to the southeast or east-central coast of Florida tonight. After landfall in Florida, a low- to mid-level ridge over the southeastern U.S. is expected to slide eastward over the Atlantic, with Nicole turning northwestward and northward across northern Florida or the northeastern Gulf of Mexico, and then across the southeastern U.S. Finally, a deep-layer mid-latitude trough approaching from the west should cause Nicole to accelerate northeastward toward the Mid-Atlantic states. The new track forecast is similar to the previous forecast and generally follows the more southerly and westerly GFS/ECMWF solutions.

While Nicole is over warm sea surface temperatures, a combination of shear of dry air entrainment is likely to allow only gradual intensification. However, that gradual intensification should allow Nicole to become a hurricane later today while crossing the northwestern Bahamas. Weakening is expected once the center moves over Florida, and even if the center emerges for a time over the northeastern Gulf of Mexico re-intensification is not expected. The new intensity forecast calls for Nicole to weaken to a depression over land by 48 h, and then become extratropical by 60 h as it merges with a frontal system. The global models are in good agreement that Nicole should dissipate inside the frontal system by 72 h as another low forms to the north.

# Key Messages from the National Hurricane Center

- 1. Hurricane conditions and a dangerous storm surge are expected in portions of the northwestern Bahamas today, where a Hurricane Warning is in effect.
- 2. Hurricane conditions are expected across portions of the coast of southeast and east-central Florida beginning this evening or tonight, where a Hurricane Warning is in effect. Tropical storm conditions have begun along the east coast of Florida in the warning areas and will spread northward to Georgia and South Carolina later today. Tropical storm conditions are expected to begin along the west coast of Florida within the warning area this evening or tonight.
- 3. A dangerous storm surge is expected along much of the east coast of Florida, portions of coastal Georgia, and the Florida Big Bend along the Gulf coast. The storm surge will be accompanied by large and damaging waves along the Atlantic coast. 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 a large storm with hazards extending well to the north of the center, outside of the forecast cone. These hazards will affect much of the Florida peninsula and portions of the southeast United States.



5. Nicole will produce heavy rainfall today into Thursday across the Florida Peninsula. Flash and urban flooding will be possible across portions of the Florida Peninsula along with river rises on the St. Johns River. Isolated flash, urban, and small stream flooding will also be possible on Friday in the Southeast through the southern and central Appalachians, including the Blue Ridge Mountains, and extending northward through west central Pennsylvania into western New York by Friday night.

#### Additional Information

WIND: Tropical storm conditions are occurring across the northwestern Bahamas, and hurricane conditions are expected to spread westward in areas in hurricane warning area through this evening. Tropical storm conditions are also occurring along portions of the east coast of Florida and will spread northward within the warning area through Georgia and South Carolina today and tonight. Hurricane conditions are expected within the hurricane warning area in Florida tonight or Thursday morning. Hurricane conditions are possible within the hurricane watch area tonight. Tropical storm conditions are expected within the warning area along the west coast of Florida by this evening or tonight.

STORM SURGE: The combination of a dangerous storm surge and the tide will cause normally dry areas near the coast to be flooded by rising waters moving inland from the shoreline. The water could reach the following heights above ground somewhere in the indicated areas if the peak surge occurs at the time of high tide...

- \* North Palm Beach Florida to Altamaha Sound Georgia including the St. Johns River to the Fuller Warren Bridge...3 to 5 ft
- \* Anclote River to Ochlockonee River...3 to 5 ft
- \* Altamaha Sound Georgia to the South Santee River South Carolina...2 to 4 ft
- \* St. Johns River south of the Fuller Warren Bridge to Georgetown Florida...2 to 4 ft
- \* Hallandale Beach to North Palm Beach...2 to 4 ft
- \* Ochlockonee River to Indian Pass...2 to 4 ft
- \* Englewood to Anclote River including Tampa Bay...1 to 3 ft
- \* North of Ocean Reef to Hallandale Beach including Biscayne Bay...1 to 2 ft
- \* South Santee River to Surf City North Carolina...1 to 2 ft

Storm surge could raise water levels by as much as 4 to 6 feet above normal tide levels along the immediate coast of the northwestern Bahamas in areas of onshore winds. The deepest water will occur along the immediate coast near and to the north of the landfall location, where the surge will be accompanied by large and destructive waves. Surge-related flooding depends on the relative timing of the surge and the tidal cycle, and can vary greatly over short distances. For information specific to your area, please see products issued by your local National Weather Service forecast office.

RAINFALL: Nicole is expected to produce the following rainfall amounts through Friday night: Northwest Bahamas into the eastern, central and northern portions of the Florida Peninsula: 3 to 5 inches with local maxima of 8 inches. Southeast into the southern and central Appalachians, western Mid-Atlantic, and eastern portions of Tennessee, Kentucky, and Ohio: 2 to 4 inches with local maxima of 6 inches along the Blue Ridge. Northern Mid-Atlantic into portions of New England: 1 to 4 inches. Flash and urban flooding will be possible, along with renewed river rises on the St. Johns River, across the Florida



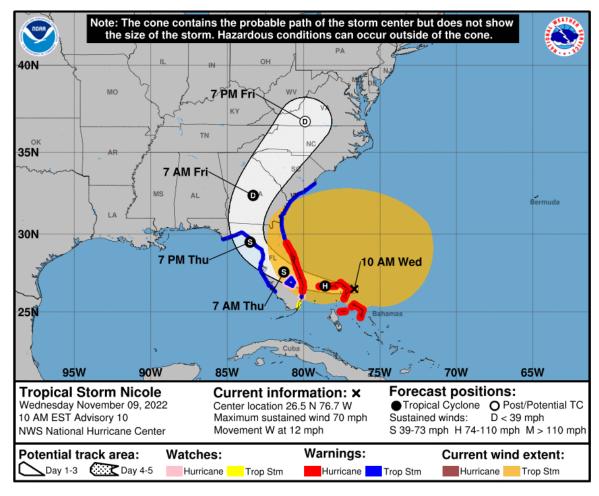
Peninsula today into Thursday. Heavy rainfall from this system will spread northward across portions of the Southeast, Mid-Atlantic, and New England Thursday into Friday night, where limited flooding impacts will be possible.

TORNADOES: A few tornadoes are possible this evening through Thursday across eastern Florida, southeastern Georgia and southern South Carolina.

SURF: Large swells generated by Nicole will affect the northwestern Bahamas, the east coast of Florida, and much of the southeastern United States coast during the next few days. These swells are likely to cause life-threatening surf and rip current conditions. Please consult products from your local weather office.

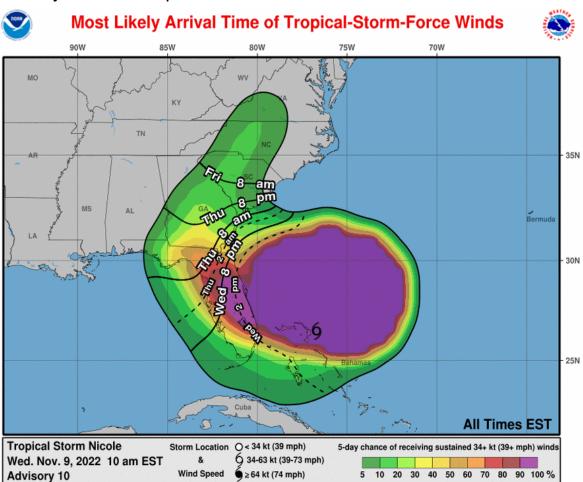


## **National Hurricane Center Forecast**





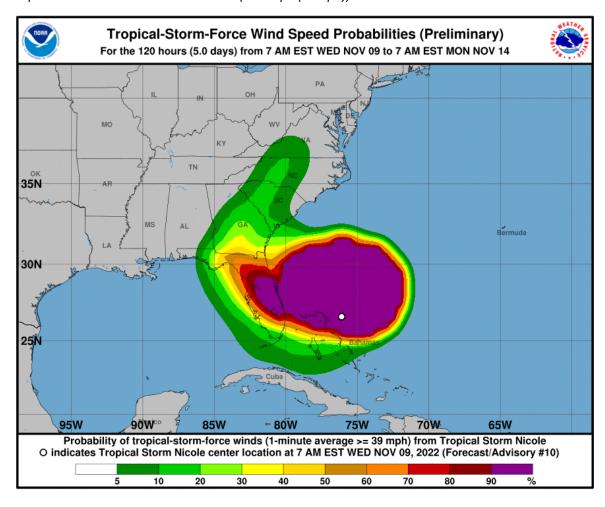
# **Most Likely Arrival Time of Tropical Storm-Force Winds**





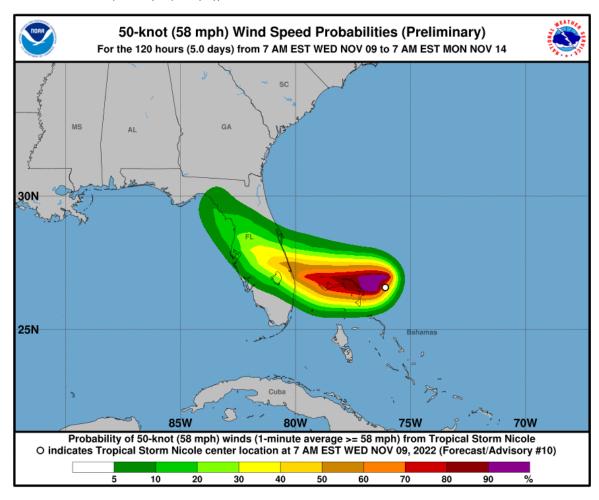
# **National Hurricane Center: Wind Speed Probabilities**

Tropical Storm-Force Wind Probabilities (≥40 mph (65 kph))



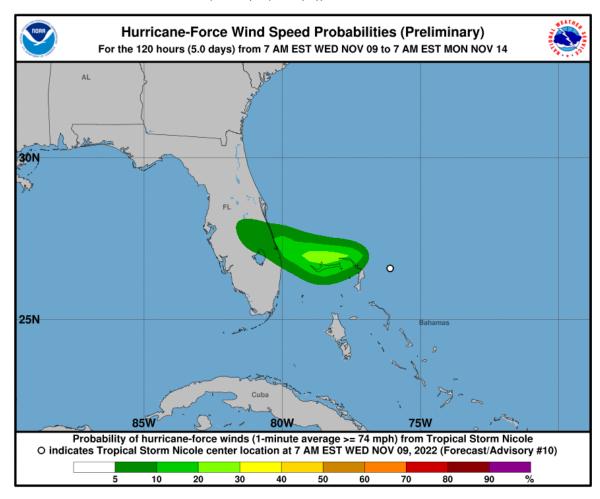


Wind Probabilities (≥60 mph (95 kph))



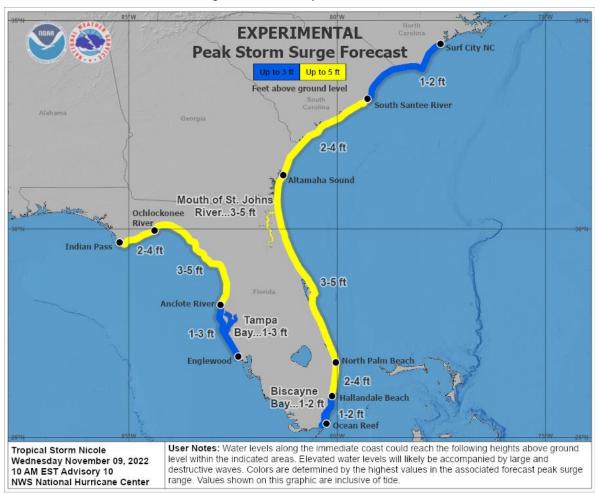


Hurricane-Force Wind Probabilities (≥75 mph (120 kph))



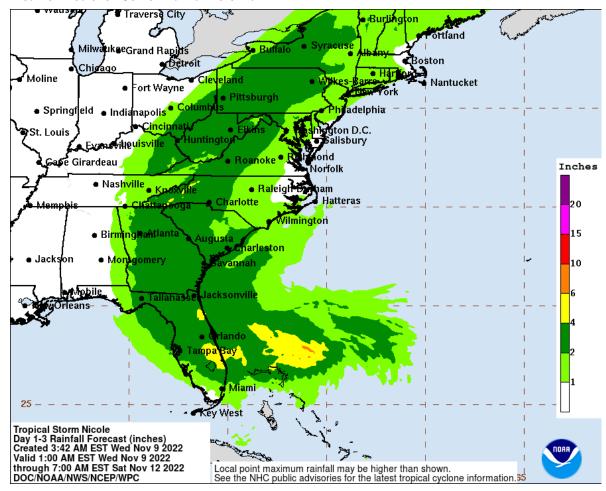


# **National Hurricane Center: Storm Surge Inundation Graphic**



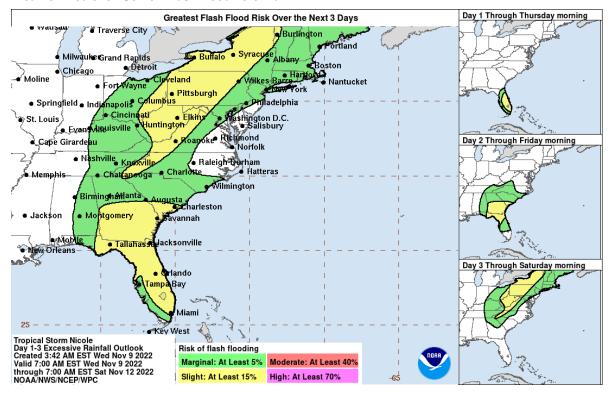


#### **Weather Prediction Center: Rainfall Potential**





#### **Weather Prediction Center: Flash Flood Potential**





NEXT CAT ALERT: The last Cat Alert for Nicole will be issued for the 4PM EST advisory today.



# Appendix: Tropical Cyclone Intensity Classifications for Global Basins

WIND SPEED			BASINS AND MONITORING BUREAU						
КТ	МРН	КРН	NE Pacific, Atlantic	NW Pacific	NW Pacific	SW Pacific	Australia	SW Indian	North Indian
			National Hurricane Center (NHC)	Joint Typhoon Warning Center (JTWC)	Japan Meteorological Agency (JMA)	Fiji Meteorological Service (FMS)	Bureau of Meteorology (BOM)	Meteo-France (MF)	India Meteorological Department (IMD)
30	35	55	Tropical Depression	Tropical Depression	Tropical Depression	Tropical Depression	Tropical Low	Tropical Depression	Deep Depression
35	40	65	Tropical Storm	Tropical Storm	Tropical Storm	Cat. 1 Tropical Cyclone	Cat. 1 Tropical Cyclone	Moderate Tropical Storm	Cyclonic Storm
40	45	75							
45	50	85							
50	60	95			Severe Tropical Storm	Cat. 2 Tropical Cyclone	Cat. 2 Tropical Cyclone	Severe Tropical Storm	Severe Cyclonic Storm
55	65	100							
60	70	110							
65	75	120	Cat. 1 Hurricane	Typhoon	Typhoon	Cat. 3 Severe Tropical Cyclone	Cat. 3 Severe Tropical Cyclone	Tropical Cyclone	Very Severe Cyclonic Storm
70	80	130							
75	85	140							
80	90	150							
85	100	160	Cat. 2 Hurricane						
90	105	170				Cat. 4 Severe Tropical Cyclone	Cat. 4 Severe Tropical Cyclone	Intense Tropical Cyclone	
95	110	175							
100	115	185	Cat. 3 Major Hurricane						
105	120	195							
110	125	205				Cat. 5 Severe Tropical Cyclone	Cat. 5 Severe Tropical Cyclone		
115	130	210							
120	140	220	Cat. 4 Major Hurricane  Cat. 5 Major Hurricane					Very Intense Tropical Cyclone	Super Cyclonic Storm
125	145	230							
130	150	240		Super Typhoon					
135	155	250							
140	160	260							
>140	>160	>260							



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