



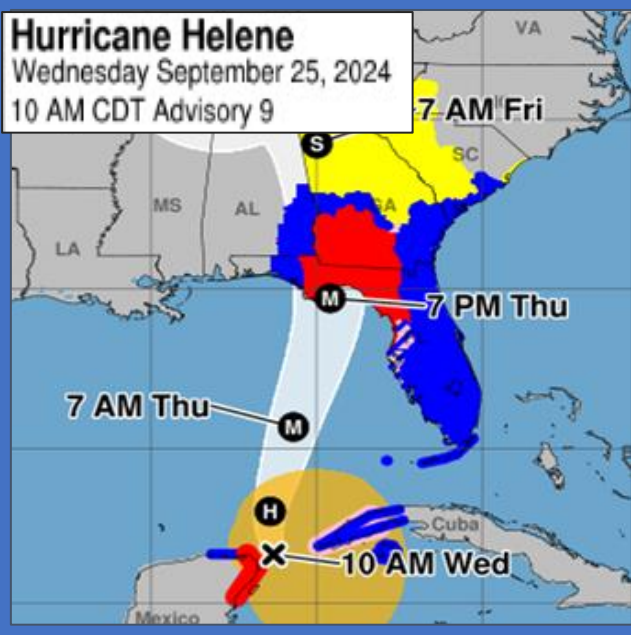
# Weather-Ready Nation

National Oceanic and Atmospheric Administration

## Hurricane Helene

Wednesday September 25, 2024

10 AM CDT Advisory 9



## Get Ready for Impacts

The term “tropical cyclone” includes tropical depressions, tropical storms and hurricanes. These systems are categorized based on the cyclone’s strongest sustained wind speed, however, it is important to not just focus on the category of storm as there are a multitude of potential impacts these systems pose including storm surge, flooding rainfall and tornadoes.

### Forecast Cone

- Cone contains probable storm *center path*
- Does not show size of storm
- **Impacts will occur outside of the cone**

### What The Cone Represents

The cone (white shaded area) shows the probable path of the tropical cyclone center. About 2 out of 3 times, the center of the storm will be within the cone. Do not focus on the cone area ONLY – impacts will occur outside of the cone!

### Impacts Beyond the Cone

Impacts from tropical cyclones can extend hundreds of miles – well outside of the forecast cone. These impacts can include rip currents, rough surf, marine hazards, tornadoes, damaging winds, flooding rainfall & storm surge. The risk of each hazard is communicated through different products issued by your local National Weather Service.



A

Greater than  
9 feet above ground



B

6-9 feet  
above ground



C

3-6 feet  
above ground



D

1-3 feet  
above ground



## WATER HAZARDS

Storm surge is often the greatest coastal tropical cyclone threat to life and property, and it can push miles inland. Storm surge forecasts are given in height above normally dry ground. Do not assume you are safe from storm surge if your location is outside the forecast cone, pay attention to Storm Surge Watches and Warnings.

Tropical rainfall can bring life-threatening flash flooding hundreds of miles inland. Flash flood warnings indicate the need to quickly shelter to higher ground. The Weather Prediction Center releases forecast rainfall totals and Excessive Rainfall Outlooks.



National Weather Service

## Wind Threat



## Storm Surge Threat



## Flooding Rain Threat Flash Flood Potential



## Tornado Threat



Yellow Potential for wind 39-57 mph  
Orange Potential for wind 58-73 mph  
Red Potential for wind 74-110 mph  
Purple Potential for wind greater than 110 mph

Yellow Potential for inundation 1-3 feet above ground  
Orange Potential for inundation 3-6 feet above ground  
Red Potential for inundation 6-9 feet above ground  
Purple Potential for inundation of 9 feet or greater

Yellow Potential for some rainfall flooding  
Orange Potential for moderate flooding  
Red Potential for major rainfall flooding  
Purple Potential for extreme rainfall flooding

Yellow Potential for a few tornadoes  
Orange Potential for several tornadoes  
Red Potential for many tornadoes  
Purple Potential for an outbreak of tornadoes

## Evacuation Readiness



- ✓ Have supplies packed in vehicle
- ✓ Have route to shelter
- ✓ Be ready to leave when told to do so
- ✓ Monitor Official Sources for Evacuation Orders – Local News, State & County Emergency Management
- ✓ The longer you wait, traffic & lodging issues will arise

**National Hurricane Center**  
**hurricanes.gov**

**National Weather Service**  
**weather.gov**

**Florida Division of Emergency Management**

**floridadisaster.org**

## COMMUNICATING HAZARD RISK

Impacts from a specific tropical cyclone vary from location to location. Local NWS offices provide threat and impact graphics, watches & warnings to convey the risk of tropical cyclone impacts to specific locations.

The graphics above represent “What to Prepare” for a specific tropical cyclone. You can quickly discern that the greatest wind risk is for the Florida Gulf Coast and the flash flood risk extends across much of central FL and portions of northeast FL.

During active tropical cyclones, your local NWS office highlights local hazard potential here:

<https://www.weather.gov/srh/tropical>

### WATCHES

**Tropical Storm or Hurricane Watch** Winds are possible within 48 hours

**Storm Surge Watch** Possibility of life-threatening storm surge within 48 hrs

### WARNINGS

**Tropical Storm or Hurricane Warning** Winds are expected within 36 hours

**Storm Surge Warning** Danger of life-threatening storm surge within 36 hrs



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