



## Monroe County Florida Keys Weather Briefing

### Multi-Hazard Weather Event:

**Increasing Confidence:** Heavy Rainfall & Strong Wind Gusts Late Thursday through Saturday Night

**Lower Confidence:** A potential for damaging thunderstorm wind gusts and/or a tornado Saturday, and coastal flooding early next week

Issued: December 12, 2023 – 12:00 pm EST

This weather briefing is for emergency management and critical infrastructure core partners serving the Florida Keys of Monroe County.

Gale and Flood Watches are likely to be issued later today.

### Bottom Line:

A multi-hazard weather event is expected to develop across the eastern Gulf of Mexico and Florida region. Due to the extended duration of potential impacts and varying degrees of confidence, this brief will be segmented into:

1. A relatively high confidence for strong northeast to east winds combined with heavy, potentially flooding rainfall developing Thursday and continuing beyond Friday night. Localized coastal flooding is possible Thursday night and Friday in the Card Sound/Barnes Sound area.
2. A continuing moderate confidence for heavy rainfall and flooding potential, and a lower confidence for severe thunderstorm wind gust and tornado potential sometime in the range from Friday night through Saturday night.
3. A low confidence potential for coastal flooding Gulfside and Bayside due to increasing westerly winds developing Sunday and continuing into Monday evening.

### Situation Overview:

#### (1)

The higher confidence portion of the upcoming forecast is due to a warm front (former cold front which recently passed) returning northward into the Straits of Florida by Wednesday. The warm front is expected to become stationary near or north of the Florida Keys Wednesday night or early Thursday. Strong high pressure over the eastern United States will combine with the front to focus areas of potentially heavy, flooding rainfall, combined with strong northeast to east winds.

While it is a bit early to predict rainfall totals with confidence, however at least 3 to 6 inches is likely as a \*minimum\* throughout the Florida Keys through Sunday night. There is currently a 10% chance that rainfall from Wednesday through Sunday night could exceed 10 inches in a few locations in the Florida Keys. Indications that rainfall flooding potential will increase Thursday night and continue through Saturday night. Street and poor drainage area flooding, especially around the times of high tide, may result.

As the rain increases in duration and intensity, northeast winds will increase to near 25 mph sustained Thursday, and peak sustained near 30 mph with frequent gusts to near 40 mph Thursday night and Friday will become a little more easterly. Any embedded heavier thundery squalls will easily have the potential to produce 50 mph wind gusts. This in combination with the wet ground could result in tree and resultant utility line damage. ***Holiday decorations and large outdoor displays may need to be secured.***

Localized coastal flooding is possible in the Manatee Bay and Card Sound Road areas as the northeast to east winds reach their peak Thursday night and Friday.

## **(2)**

During the time from from late Friday night through Saturday night, non-tropical low pressure is expected to develop over the eastern Gulf of Mexico. Confidence remains low on where the low pressure may develop, whether the east central or southeast Gulf of Mexico. While heavy rainfall potential remains of moderate confidence, the exact position and strength of the low pressure will determine where a threat for severe thunderstorms with damaging wind gust and an isolated tornado potential develops over the Florida Keys.

Currently, the threat of severe weather is low enough not to warrant a risk for severe weather Friday night through Saturday night, however this will be closely monitored over the next few days.

## **(3)**

Depending on the formation, structure, intensity and path of the non-tropical low pressure system, there is the potential for strengthening west winds across the southeast Gulf of Mexico and the Keys Sunday through Monday. While northwesterly winds are common as low pressure departs to the northeast into the western North Atlantic, westerly winds are known to drive Gulf water eastward into Florida Bay. Thus, there is the potential for minor to locally moderate coastal flooding along the Gulfside & Bayside of the Keys. The best timing potential for flooding across the stretch from Key West through the Marathon area would be Sunday, with waters not likely to peak in the Islamorada/Key Largo bayside area until Monday afternoon.

### **Impact Summary:**

#### **Relatively High Confidence:**

Flooding rainfall potential Late Thursday through Saturday Night

Strong northeast to east winds 25 to 30 mph with frequent gusts to near 40 mph, especially Thursday night and Friday. A few thundery squalls could product wind gusts near 50 mph.

#### **Low Confidence:**

Severe thunderstorm damaging wind and/or isolated tornado potential sometime during the period Friday night through Saturday night

Coastal flooding potential Gulfside and Bayside Sunday and Monday

### **Next Update**

The next update to the weather brief is scheduled for release by 11 am Wednesday morning.

You may contact the NWS Key West at (305) 295-1316 extension 3 to speak with a meteorologist 24/7.

Please contact us anytime if you need specific information (as best as the science allows) for critical hazardous weather information for decision support in your department's activities.



For additional information, visit our webpage at: <http://www.weather.gov/key>  
Or monitor us on Facebook at: <https://www.facebook.com/NWSKeyWest>  
Or Twitter: <https://twitter.com/NWSKeyWest>

Issued by: Jon Rizzo, Warning Coordination Meteorologist, NWS Florida Keys