



Wind Advisory Today

April 2, 2025
5:37 AM

What

- South winds 20 to 30 mph with gusts of 45 to 50 mph expected.

When

- From 8 AM EDT Wednesday to 1 AM EDT Thursday

Impacts

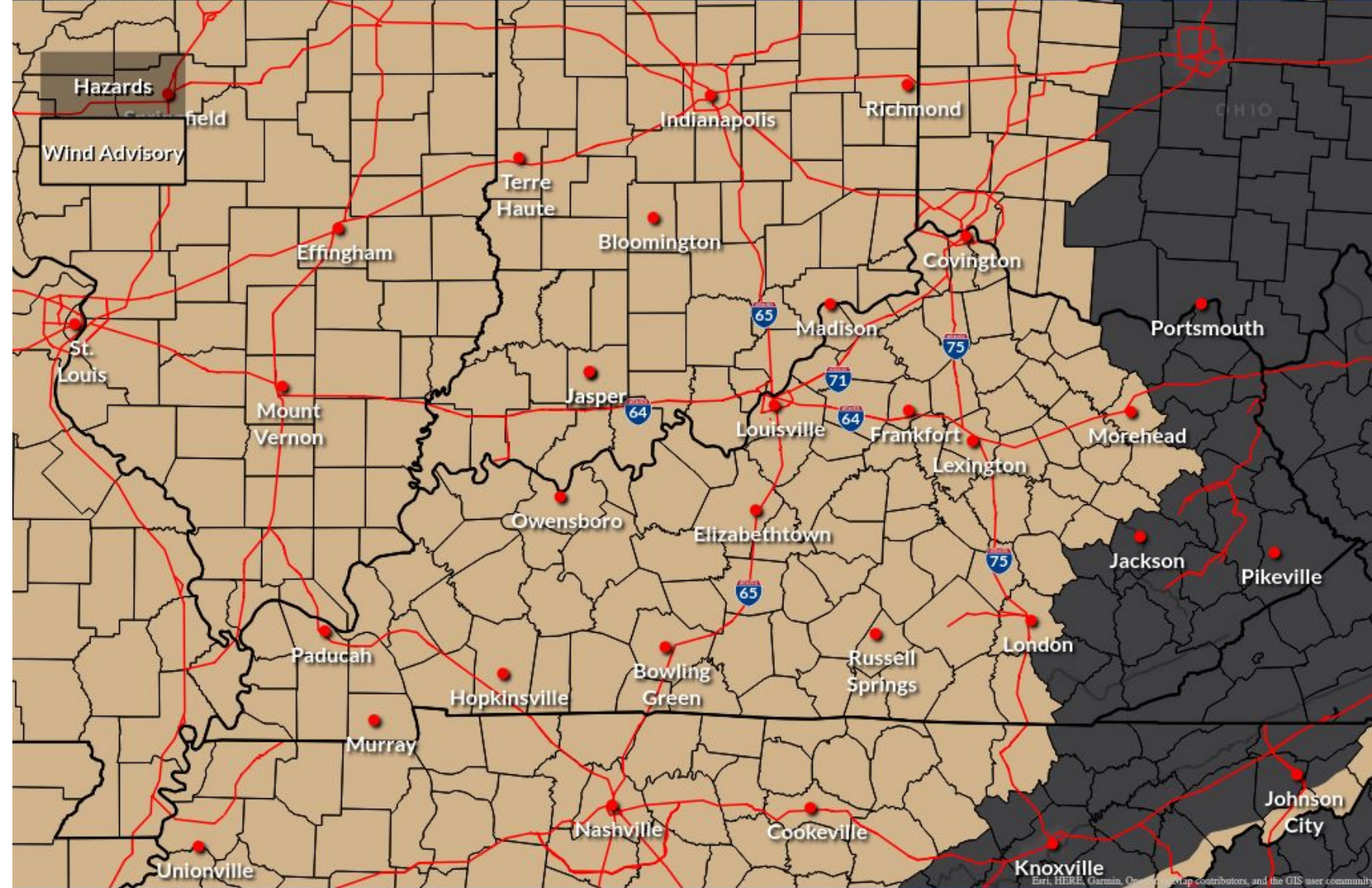
- Gusty winds will blow around unsecured objects.
- Tree limbs could be blown down and power outages may result.
- Winds this strong can make driving difficult, especially for high profile vehicles on east-west roads including Interstate 64.

Wind Advisory Today

Wind Gusts of 40 to 50 mph Expected

Weather Forecast Office
Louisville, KY

Issued Apr 02, 2025 5:01 AM EDT



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National Oceanic and
Atmospheric Administration
U.S. Department of Commerce

National Weather Service
Louisville, KY



Severe Threat Round 1: Tonight

April 2, 2025
5:37 AM

Greatest Threat Across Western Kentucky and Southern Indiana

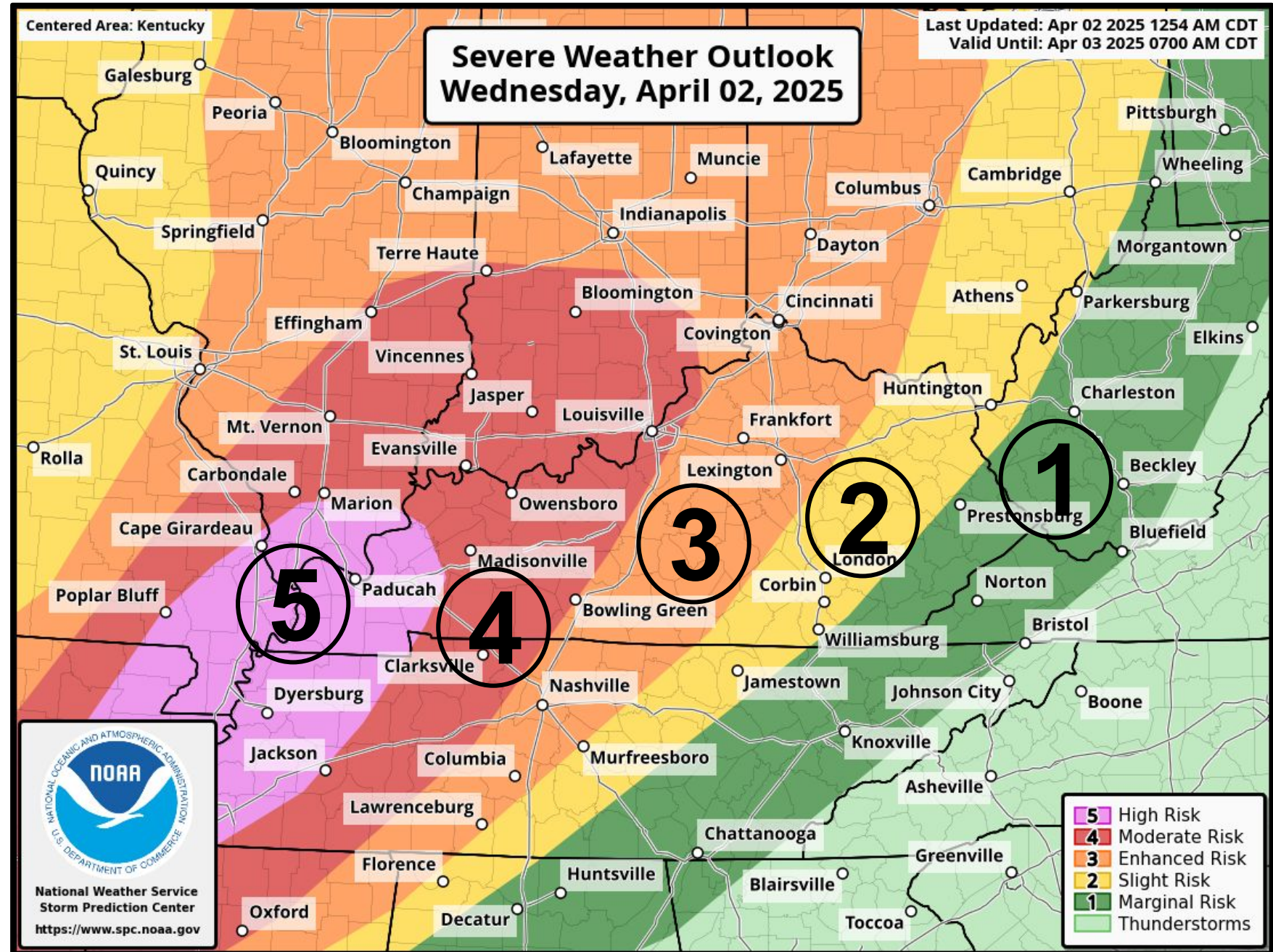
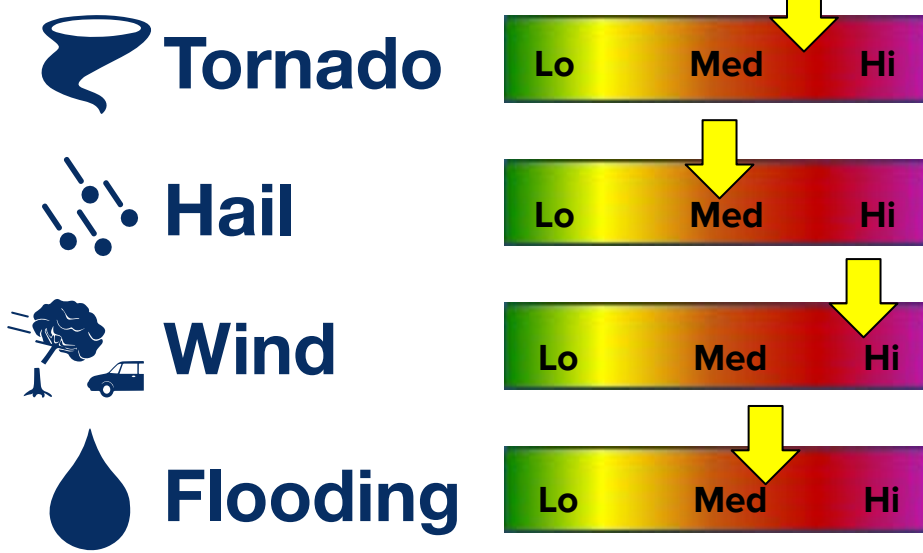
Key Messages

→ Severe thunderstorms develop west of the Mississippi River during the afternoon and push into Kentucky and Indiana in the evening as a line of storms

→ All severe hazards are in play:

- ◆ **Damaging winds**
- ◆ **Tornadoes**
- ◆ **Hail**

Threats Confidence





Tonight's Severe Threat Timing

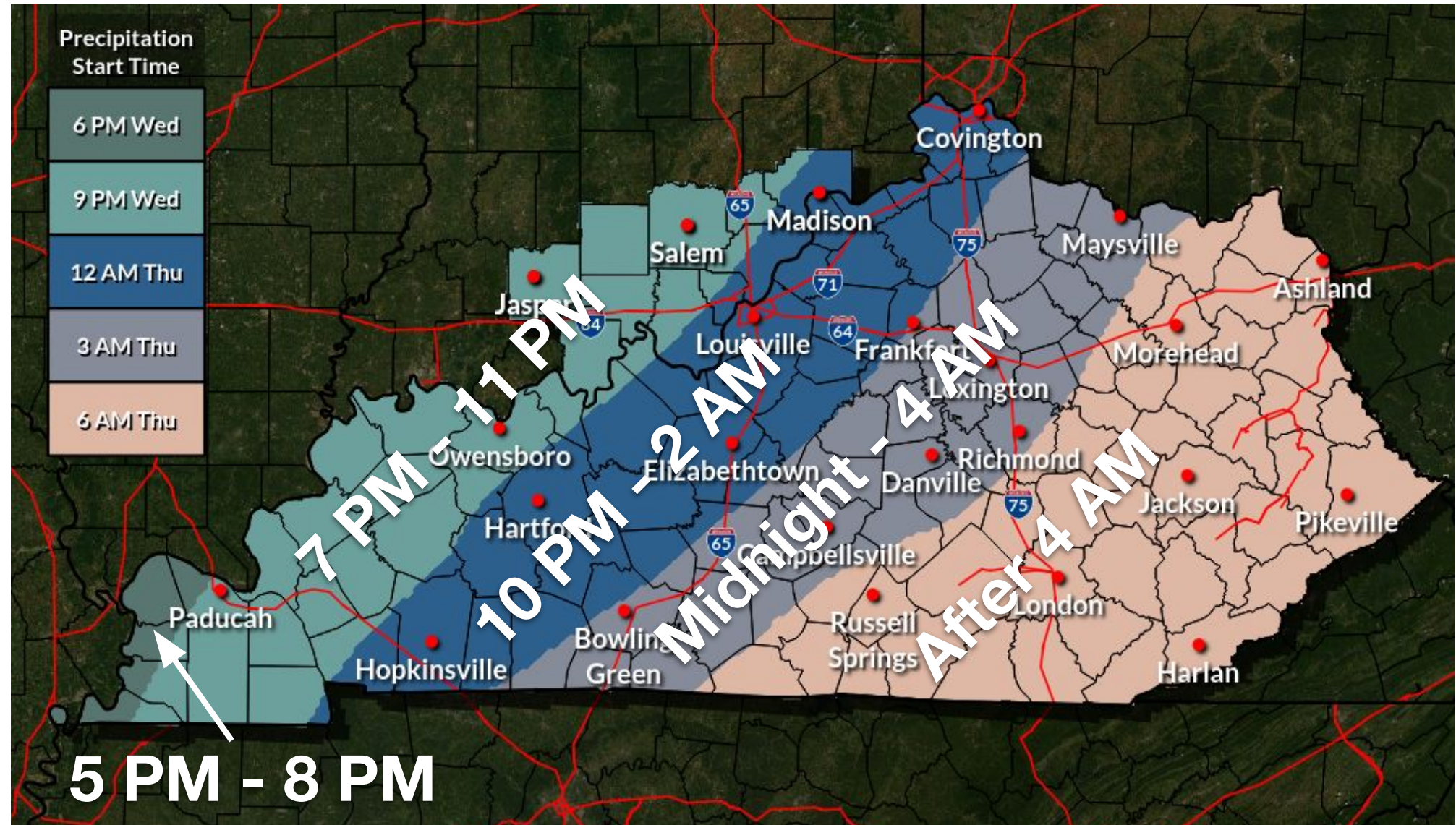
April 2, 2025
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Much Lower Confidence Than The Sunday Night Event

All Times in EDT

Key Messages

- Storms will push east across western Kentucky and southwest Indiana during the evening hours
- Eastward movement will **slow considerably** east of Interstate 65
- Confidence in timing and severity of storms is much lower east of Interstate 65
- Severe weather may last for 1-2 hours, though heavy rain will last longer



Confidence in Timing





Understanding SPC Outlook Categories

April 2, 2025
5:37 AM

Severe Weather Risks Defined

What Do These Risks Mean?

4 - Moderate

Widespread severe storms likely

Long-lived, widespread and intense storms

Several severe storms are likely to be significant

Examples:

- Strong Tornadoes
- Several reports of Significant Wind Damage
- Destructive Hail 2+”

5 - High

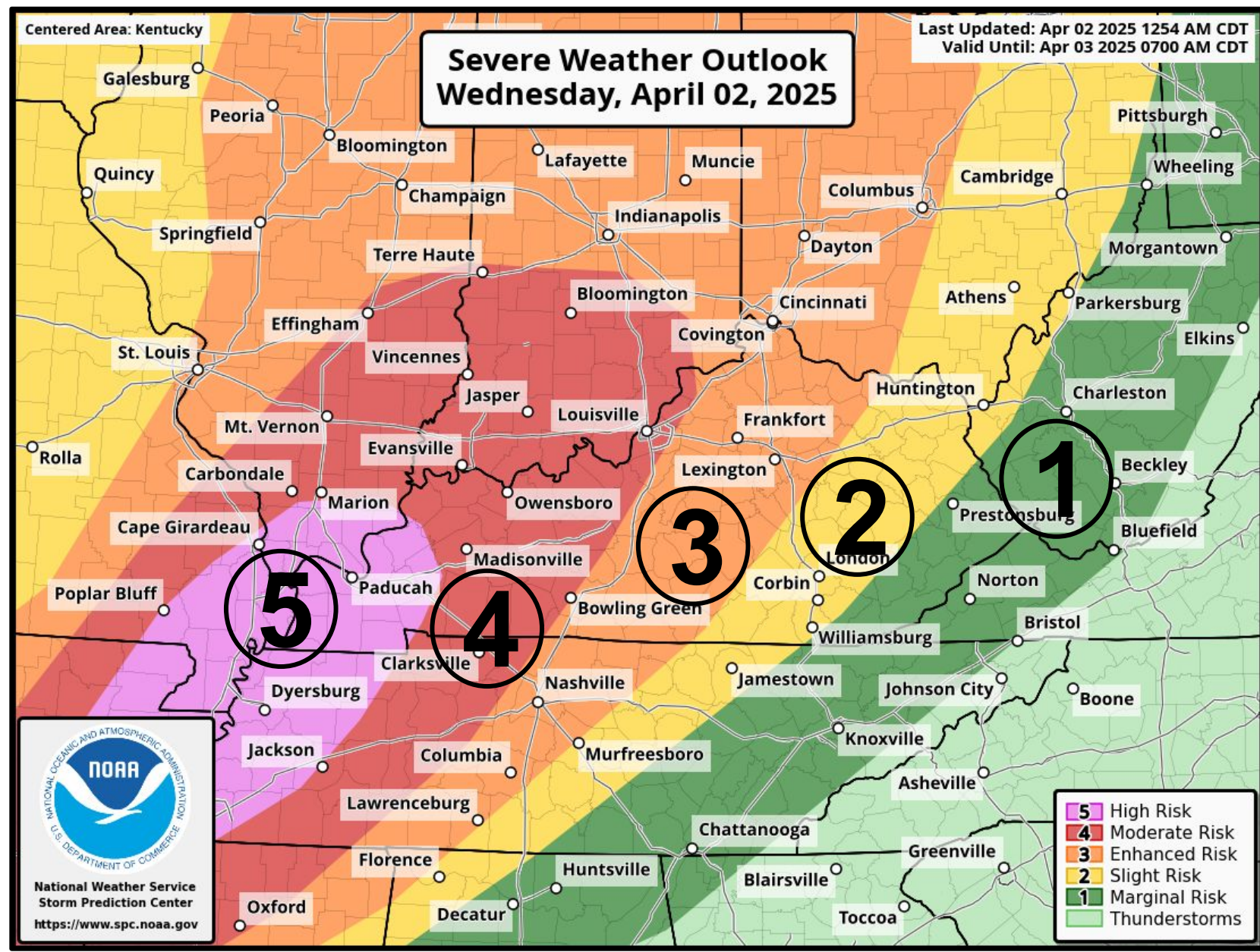
Widespread severe storms expected

Outbreak of intense and long-lived storms

Numerous severe storms could be significant

Examples:

- Strong Tornadoes, some EF2+
- Widespread reports of Significant Wind Damage
- Destructive Hail 2+”





Tornado Probabilities

April 2, 2025
5:37 AM

This Evening into Tomorrow Morning

Key Messages

- Tornadoes are expected
- Strong, potentially long-track, tornadoes will be possible

Hatched Area: $\geq 10\%$ chance of a significant tornado (EF-2 or stronger)

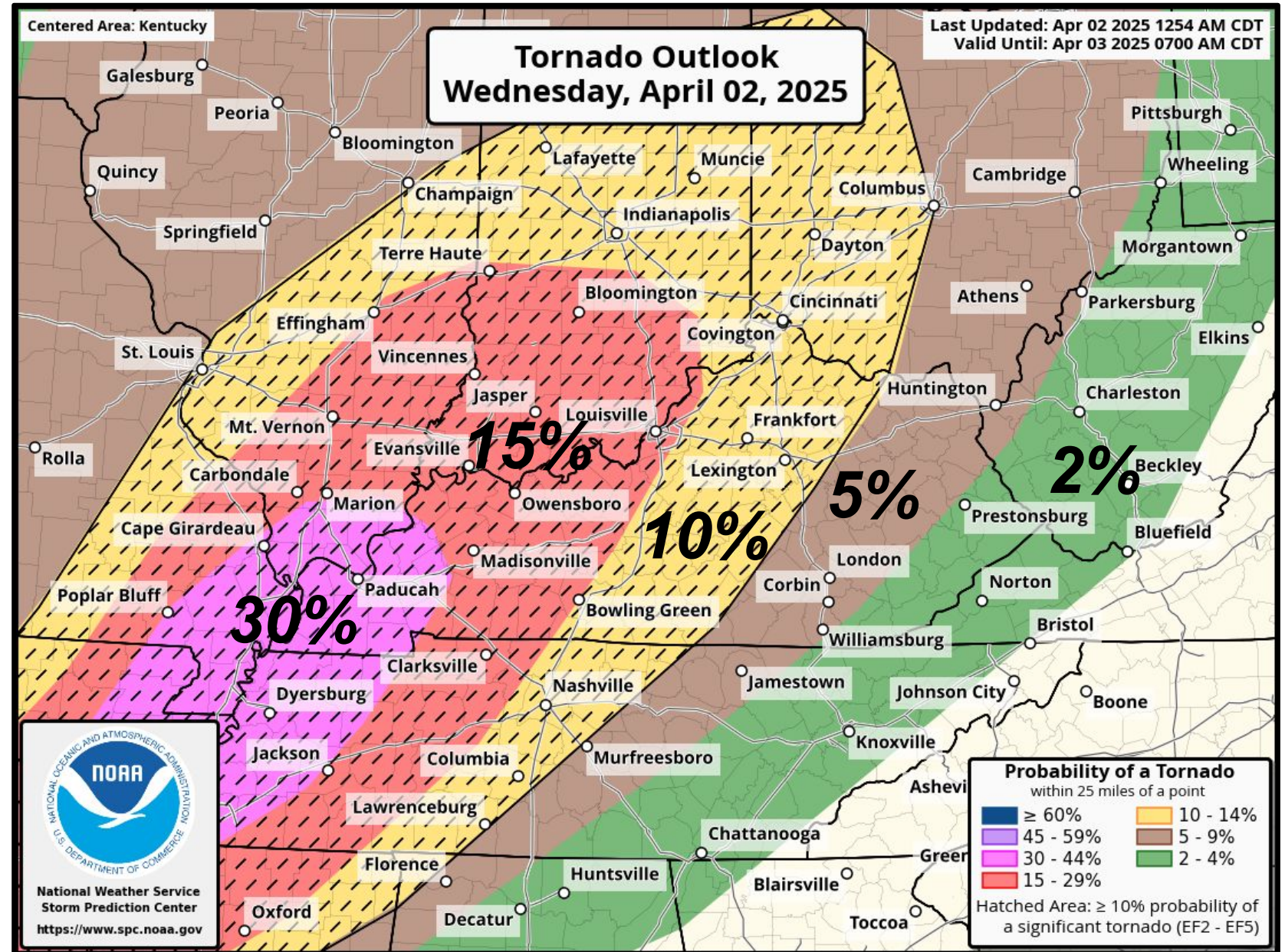
Confidence in Tornadoes



Low

Medium

High





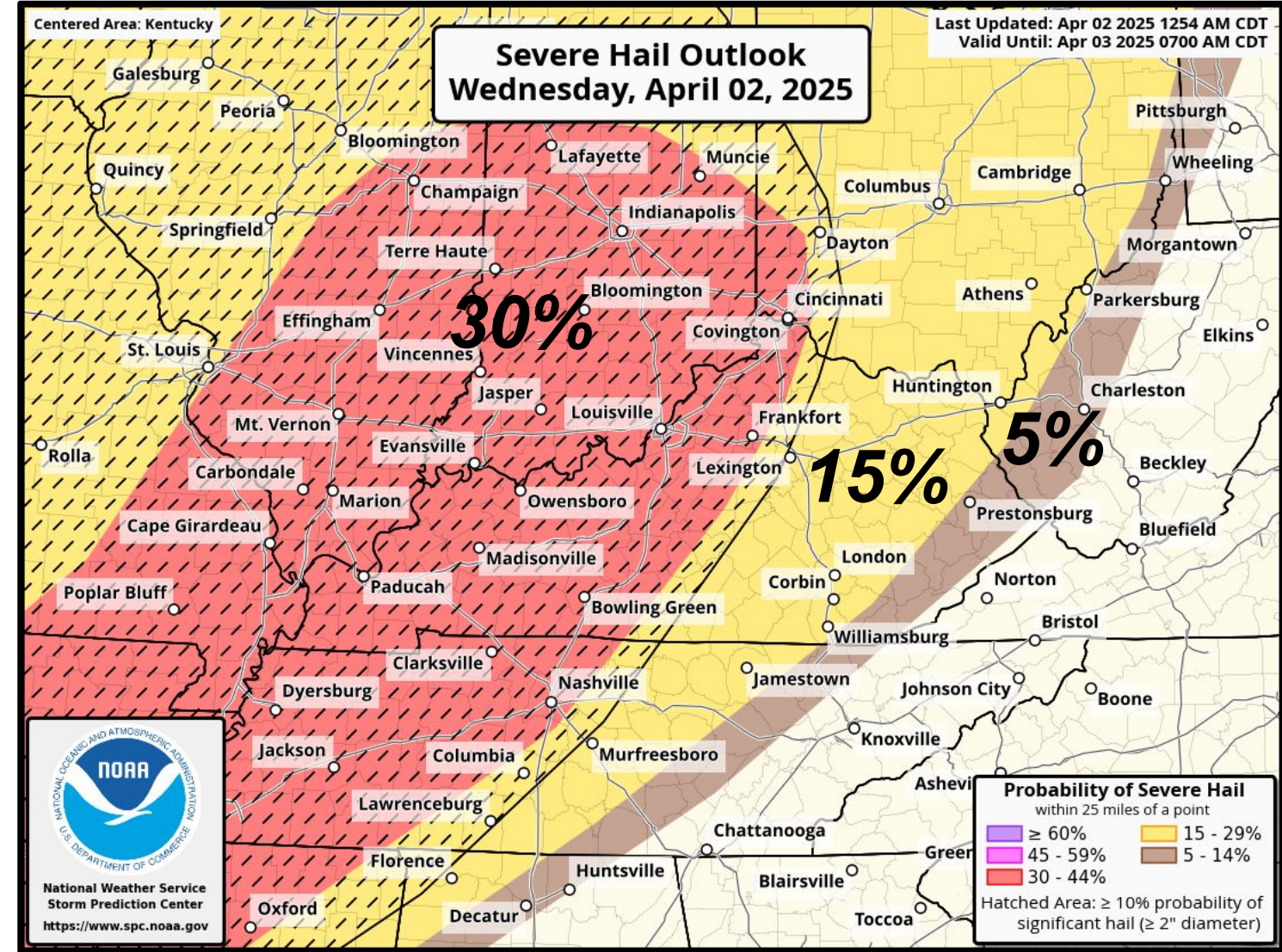
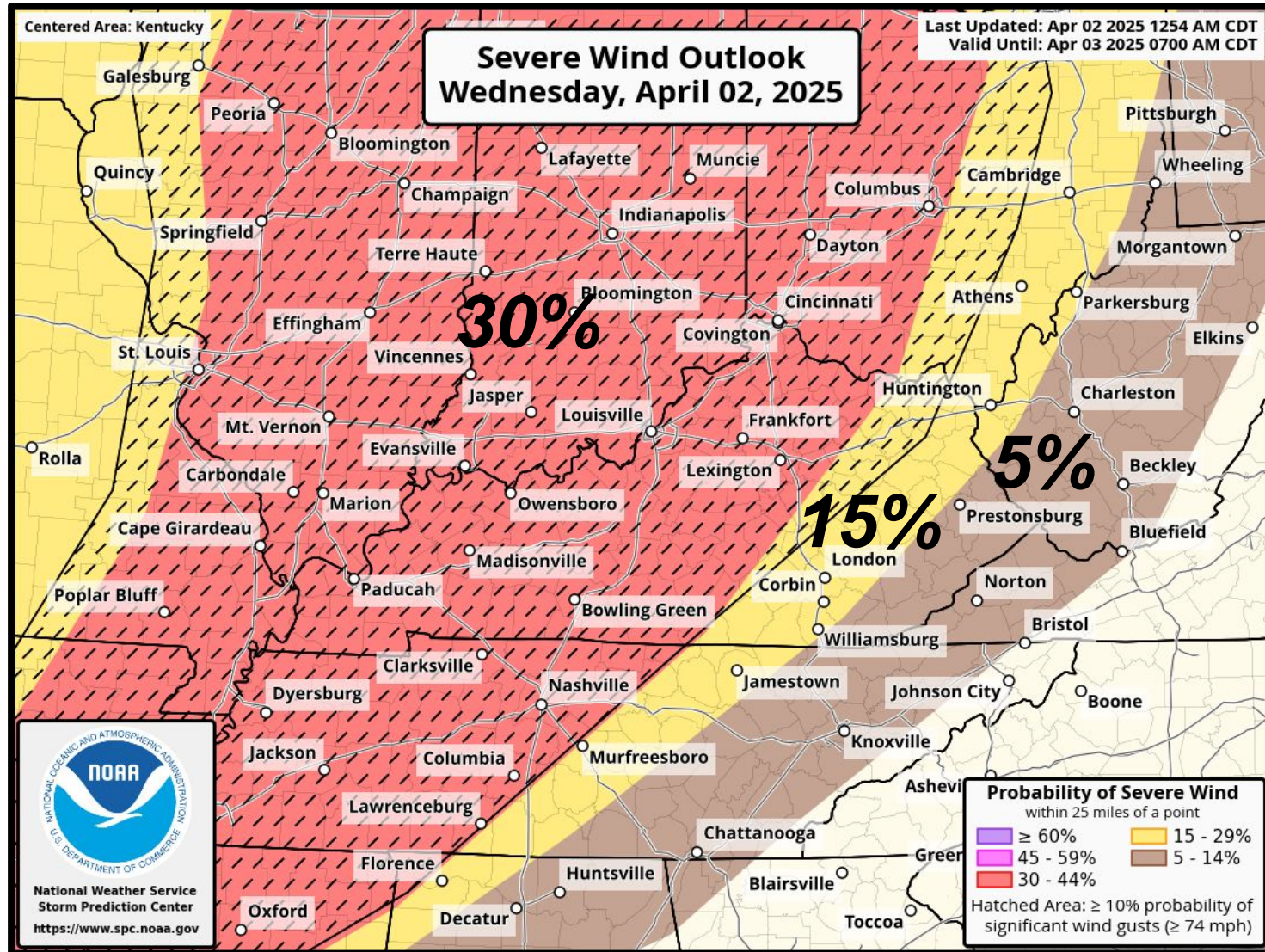
Severe Wind and Hail Probabilities

April 2, 2025
5:37 AM

This Evening into Tomorrow Morning

Probability of Severe Straight-Line Winds (58+ mph)

Probability of Severe Hail (1" Diameter)



Hatched Area: ≥10% chance of 75+ mph wind

Hatched Area: ≥10% chance of 2+ inch diameter hail

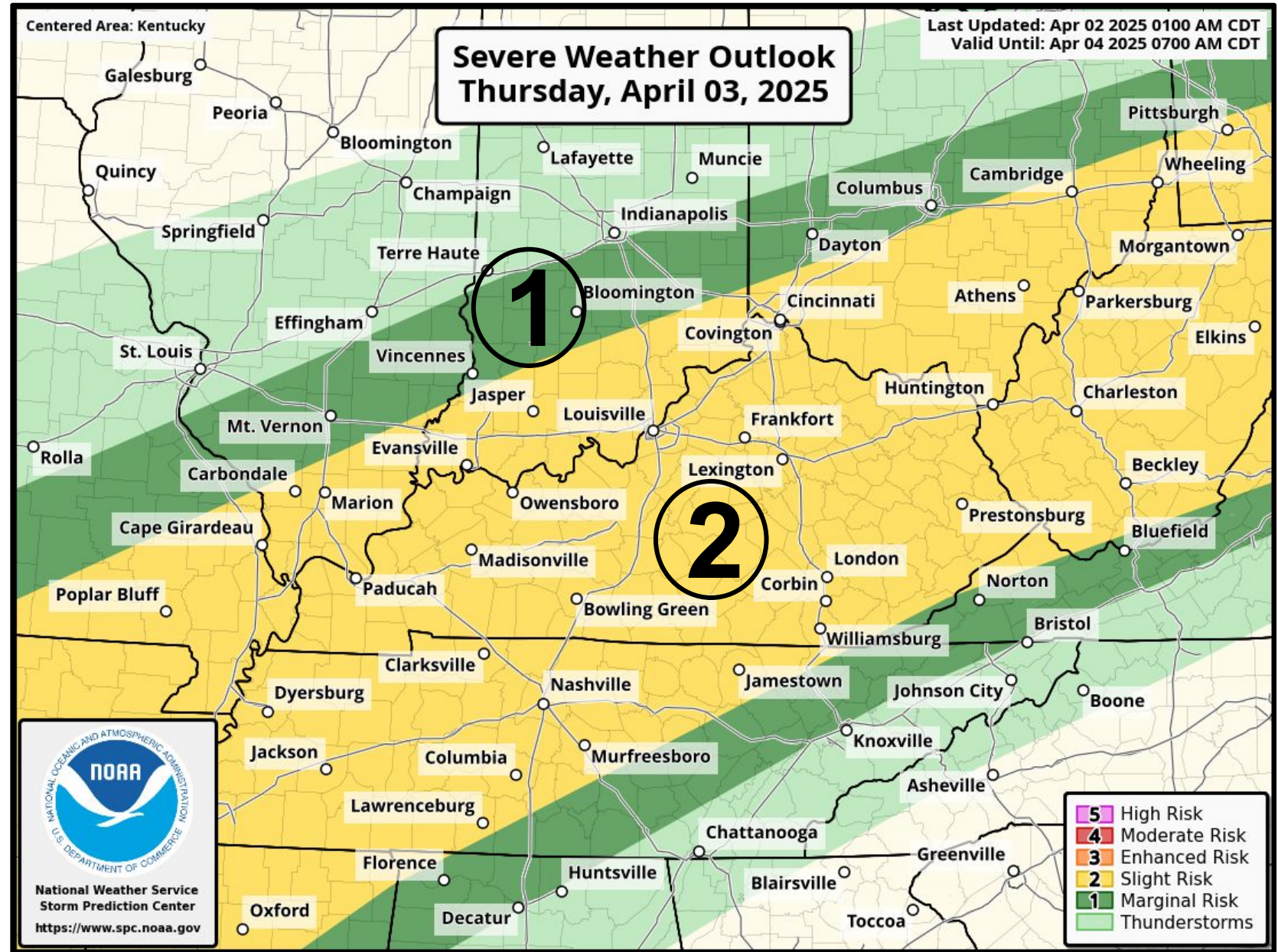


Severe Storms Round 2: Thursday

April 2, 2025
5:37 AM

Key Messages

- Additional waves of showers and storms will ride along a stalled cold front
- The evolution of tonight's storms will determine where the greatest threat for severe weather on Thursday will be
- All hazards are in play; however, the long-track tornado and destructive wind threat will be much lower



Confidence in Severe Storms

Low

Medium

High



National Oceanic and
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National Weather Service
Louisville, KY

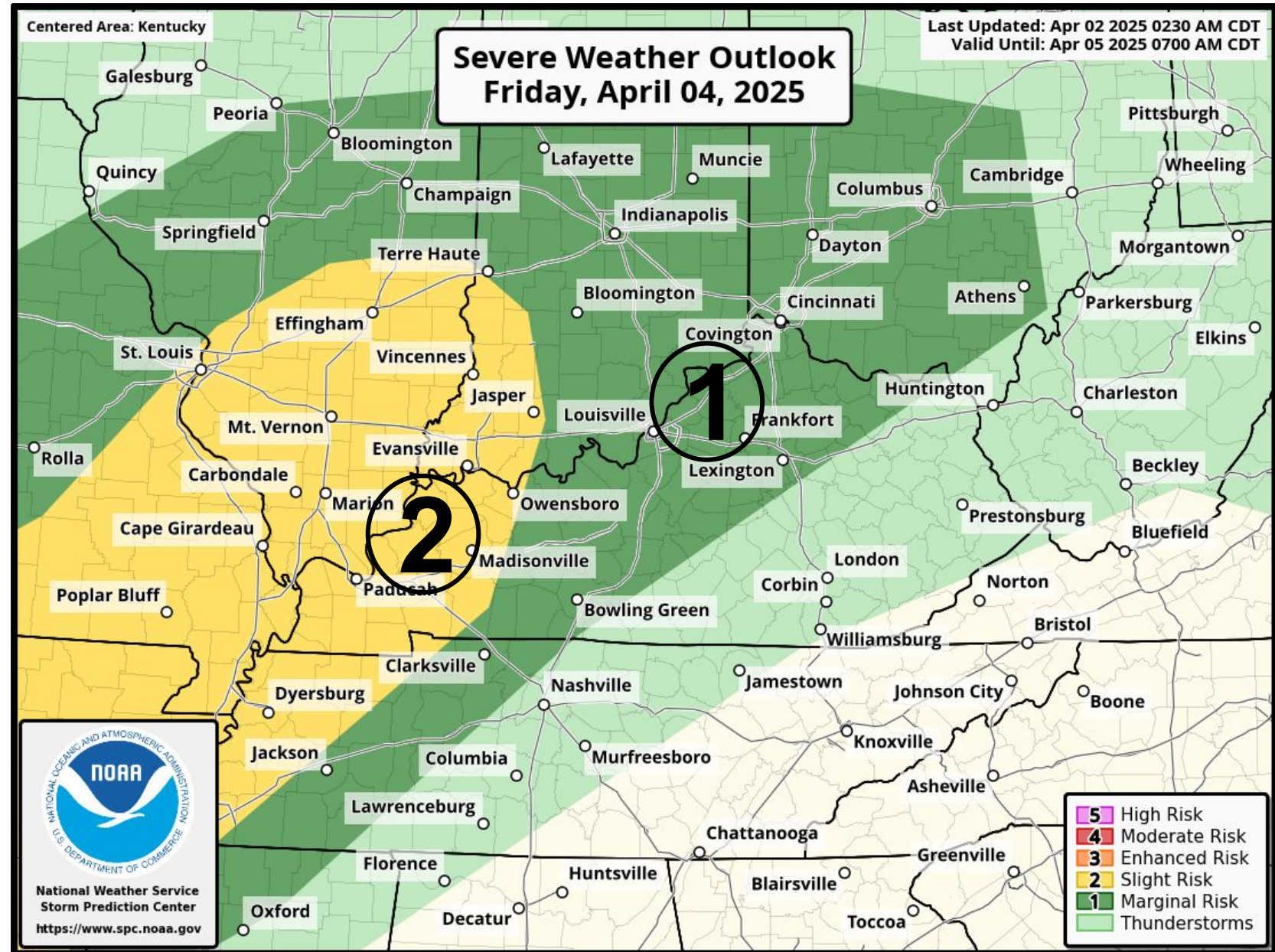


Severe Storms Round 3: Friday

April 2, 2025
5:37 AM

Key Messages

- Additional waves of showers and storms will ride along a stalled cold front
- Depending on how storms evolve Thursday night, conditions may be favorable for additional severe storms Friday
- Confidence is increasing, although there is still much uncertainty for storms on Friday



Confidence in Severe Storms





Severe Storms Round 4: Saturday

April 2, 2025
5:37 AM

Key Messages

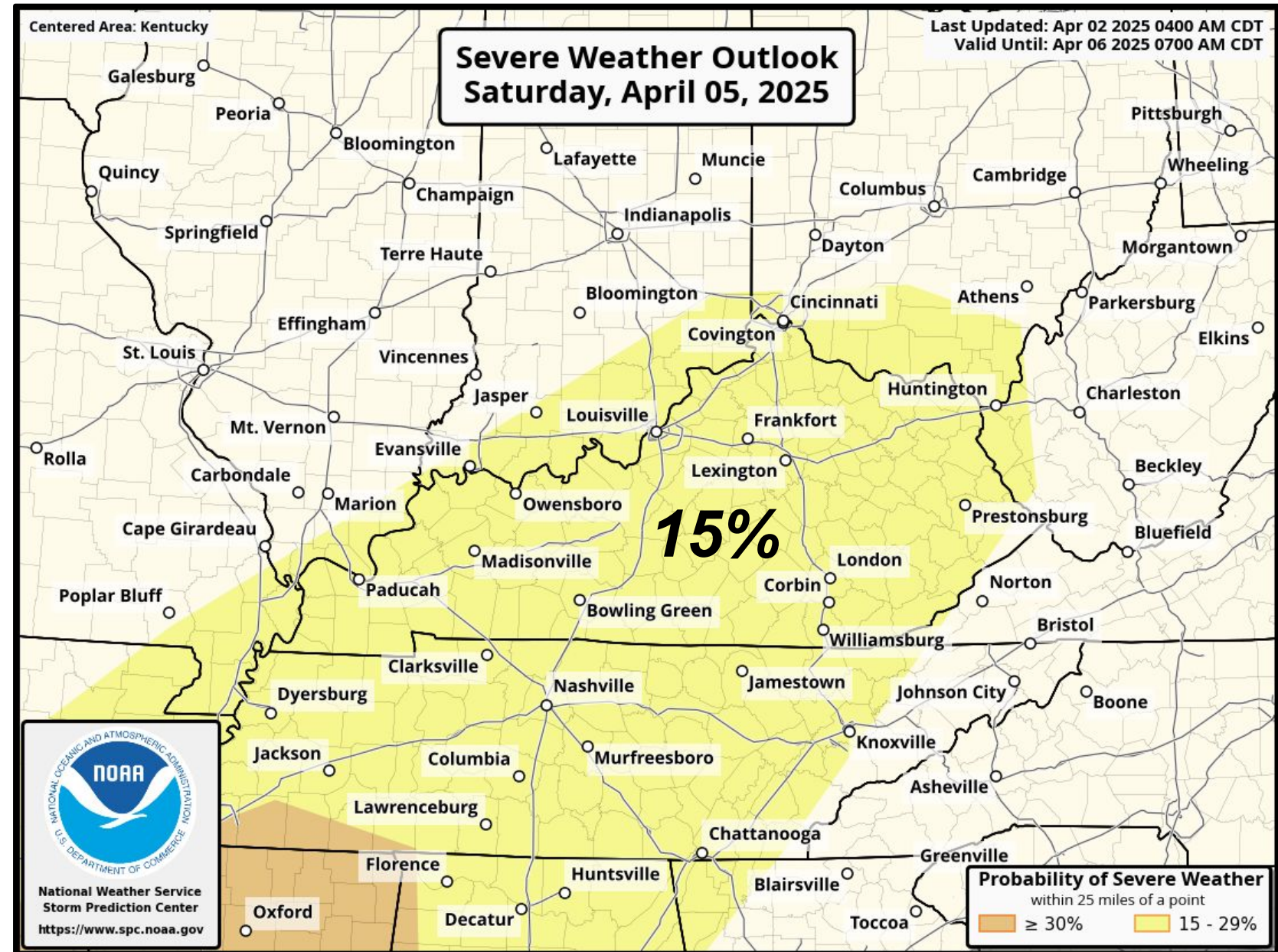
- Additional waves of showers and storms riding along a stalled cold front.
- Storm chances late week are dependent on storm intensity the days prior, so confidence is lower.

Confidence in Severe Storms

Low

Medium

High





Major Flooding Likely Late Week

April 2, 2025
5:37 AM

Key Messages

- Multiple rounds of heavy rainfall are expected this evening through the weekend
- Flooding will become more widespread later in the week as additional storms move through
- The area of heaviest rainfall may shift slightly over the next few days

Impacts

- **Flash flooding** due to heavy rainfall rates in thunderstorms
- **Widespread river flooding**
- **Potentially life-threatening flooding**

Confidence in Flooding

Low

Medium

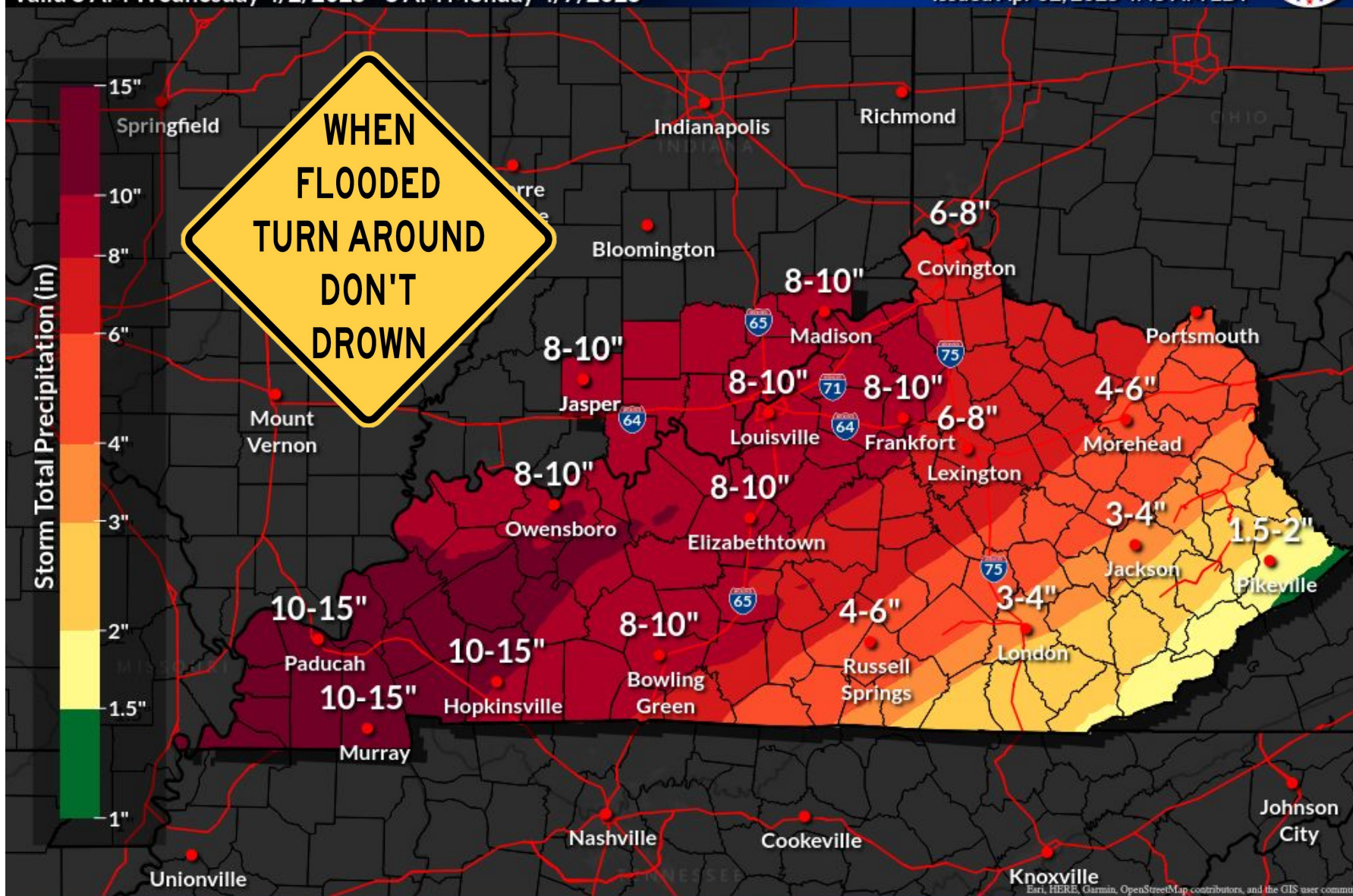
High

Storm Total Rainfall Forecast

Valid 8 AM Wednesday 4/2/2025 - 8 AM Monday 4/7/2025

Weather Forecast Office
Louisville, KY

Issued Apr 02, 2025 4:45 AM EDT



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Major Flooding Likely Late Week

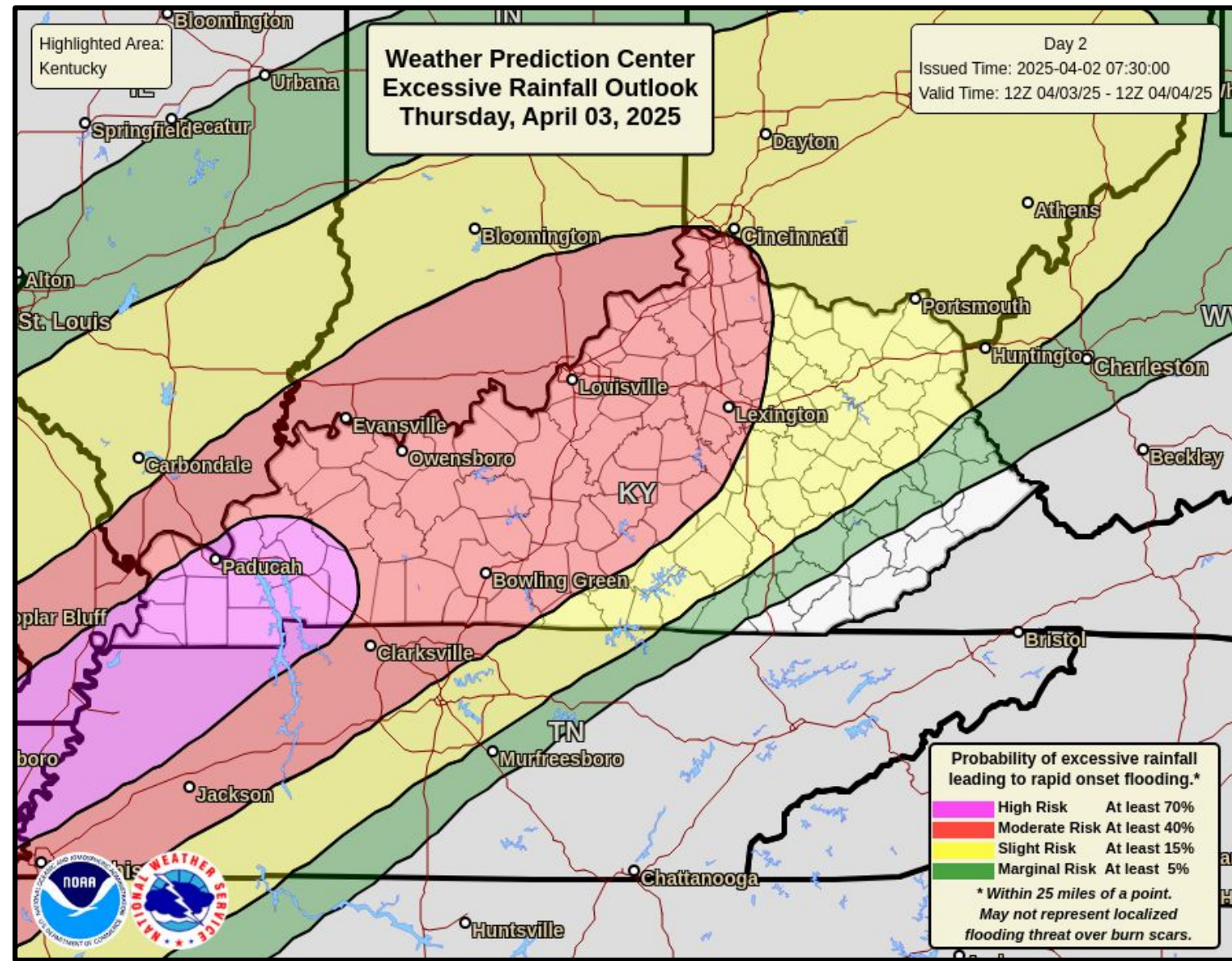
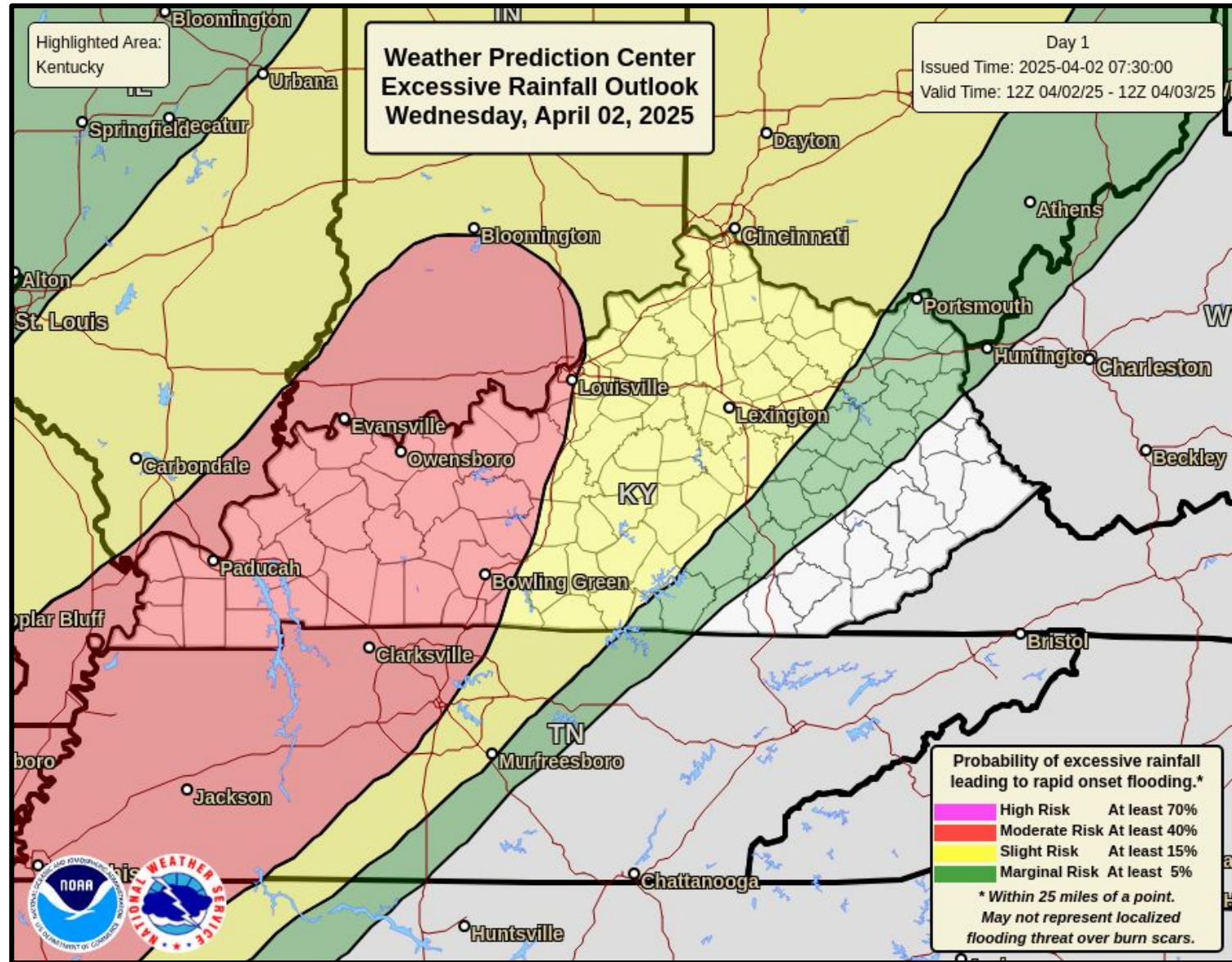
April 2, 2025

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Excessive Rainfall Outlooks for Today and Thursday

Today's Excessive Rainfall Outlook

Thursday Excessive Rainfall Outlook





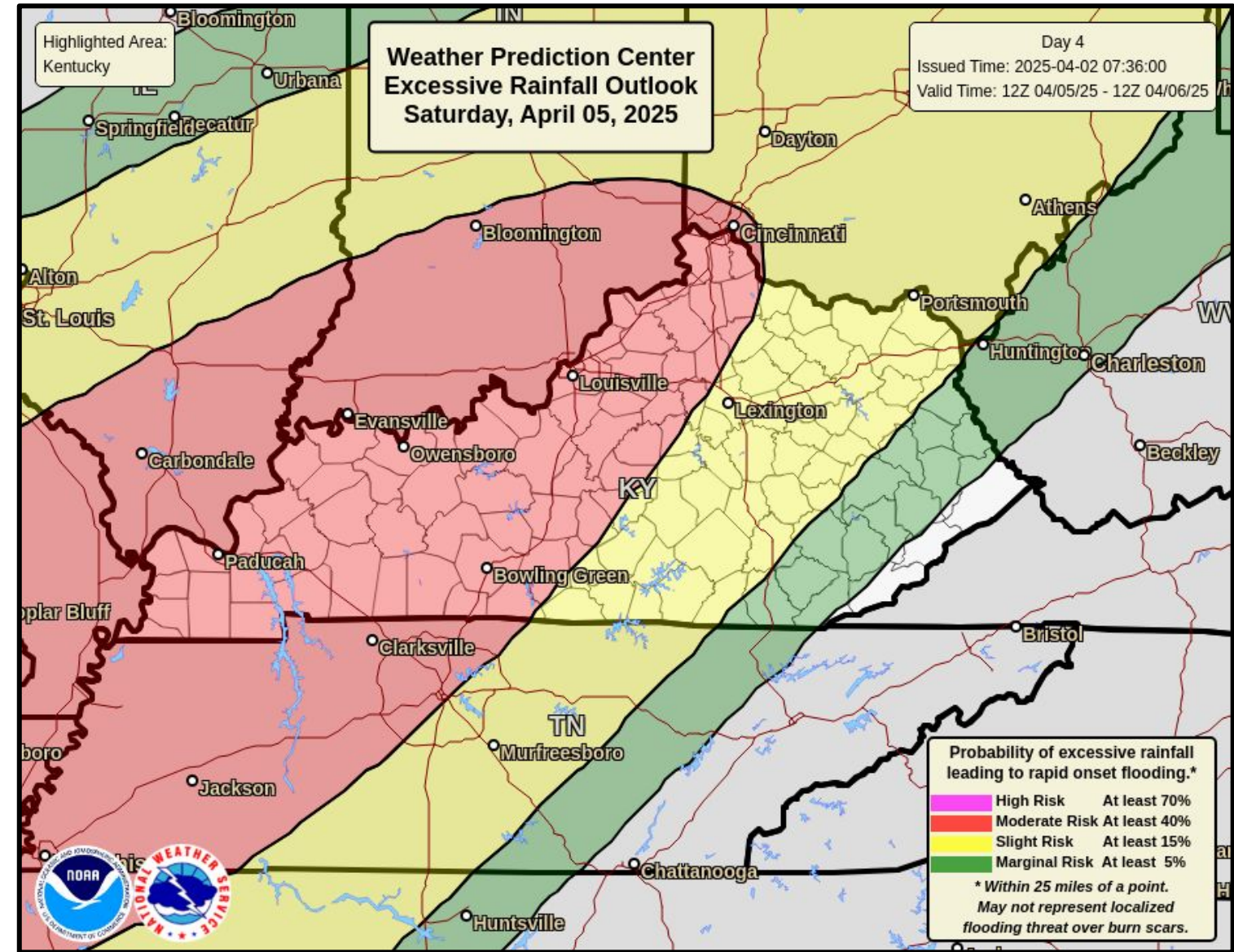
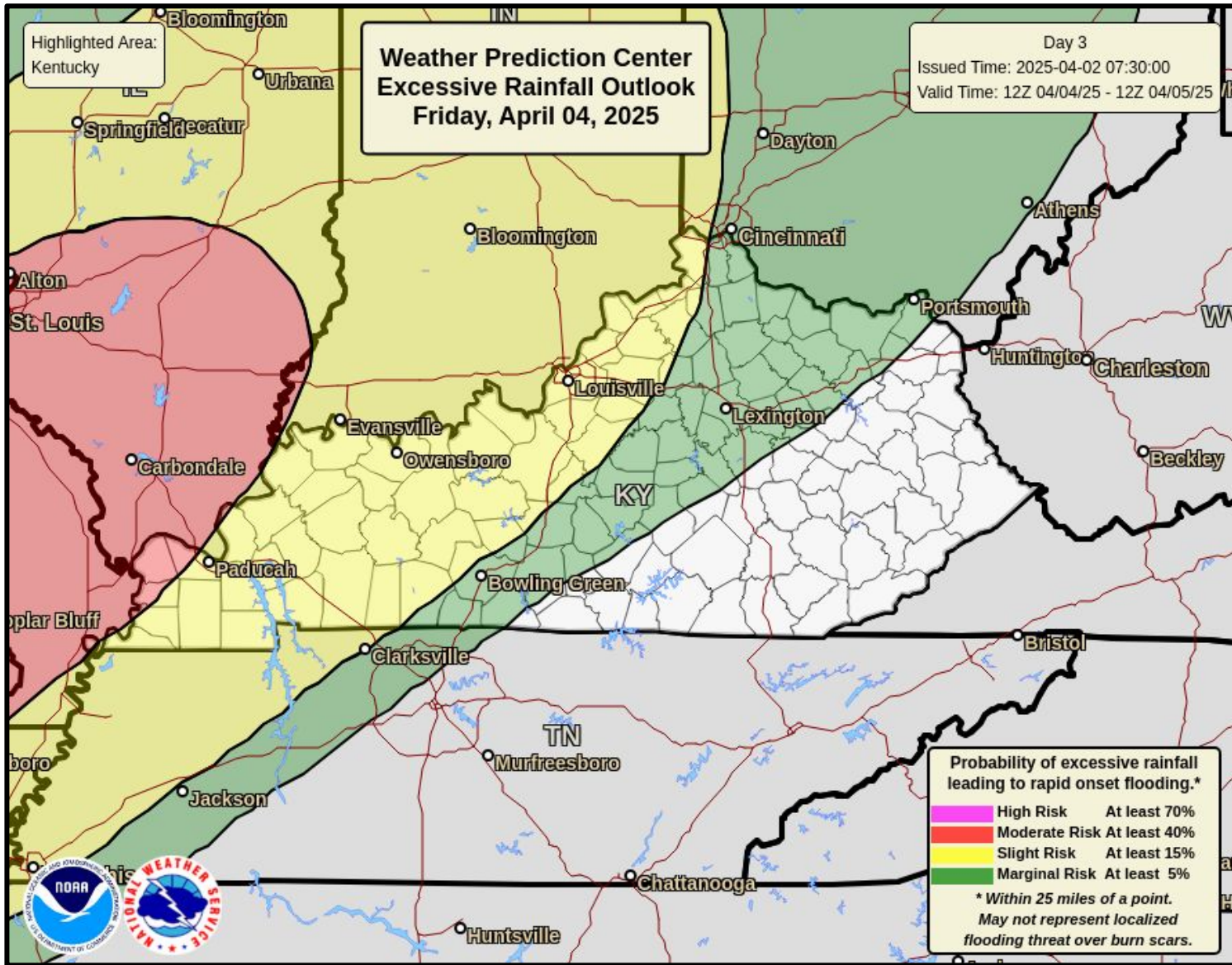
Major Flooding Likely Late Week

April 2, 2025
5:37 AM

Excessive Rainfall Outlooks for Friday and Saturday

Friday Excessive Rainfall Outlook

Saturday Excessive Rainfall Outlook





Understanding WPC Outlook Categories

April 2, 2025
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Excessive Rainfall Outlooks Defined

SLIGHT (SLGT)

Scattered flash floods possible

Mainly localized. Most vulnerable are urban areas, roads, small streams and washes. Isolated significant flash floods possible.

MODERATE (MDT)

Numerous flash floods likely

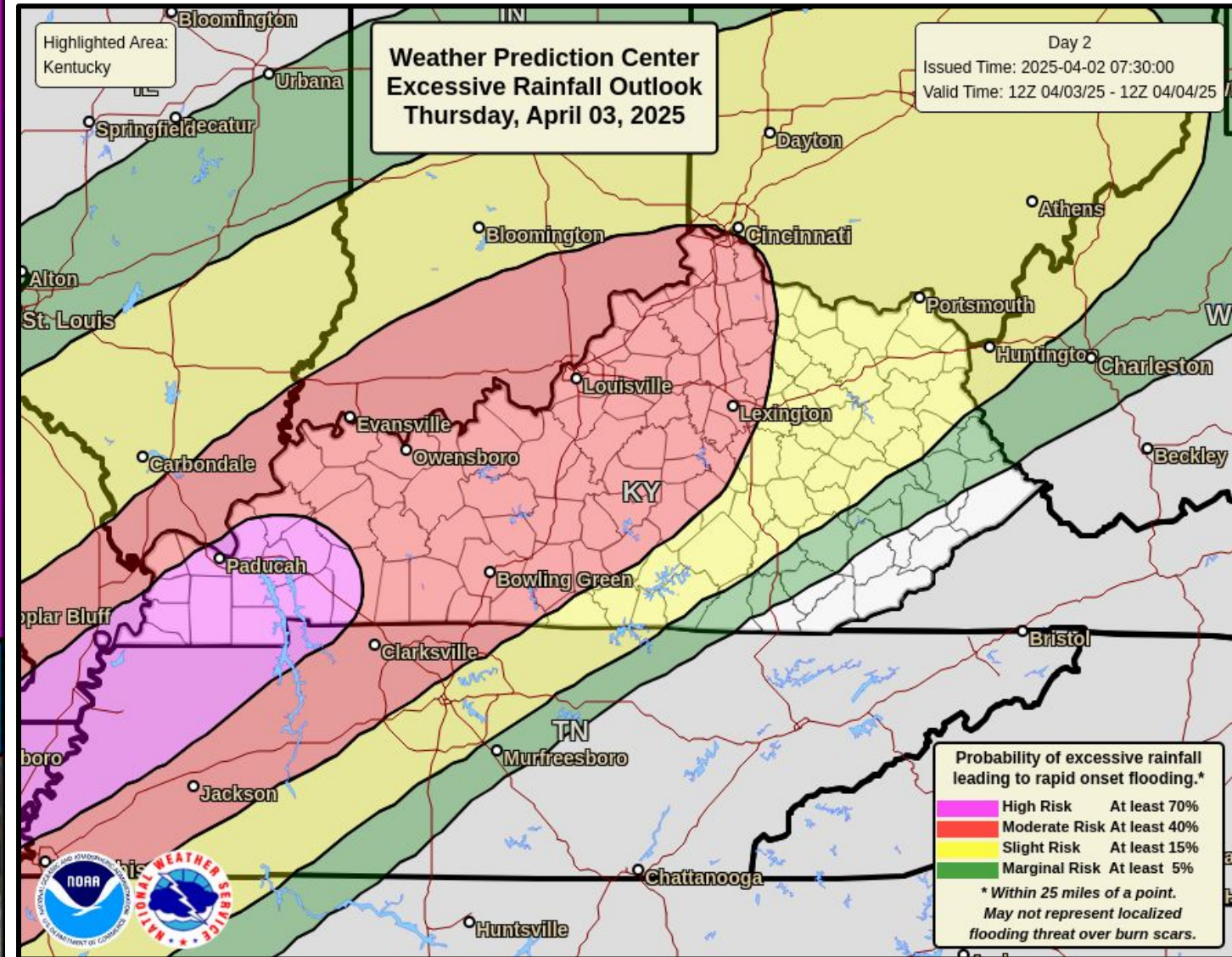
Numerous flash flooding events with significant events possible. Many streams may flood, potentially affecting larger rivers.

HIGH (HIGH)

Widespread flash floods expected

Severe, widespread flash flooding. Areas that don't normally experience flash flooding, could. Lives and property in greater danger.

What Do These Risks Mean?

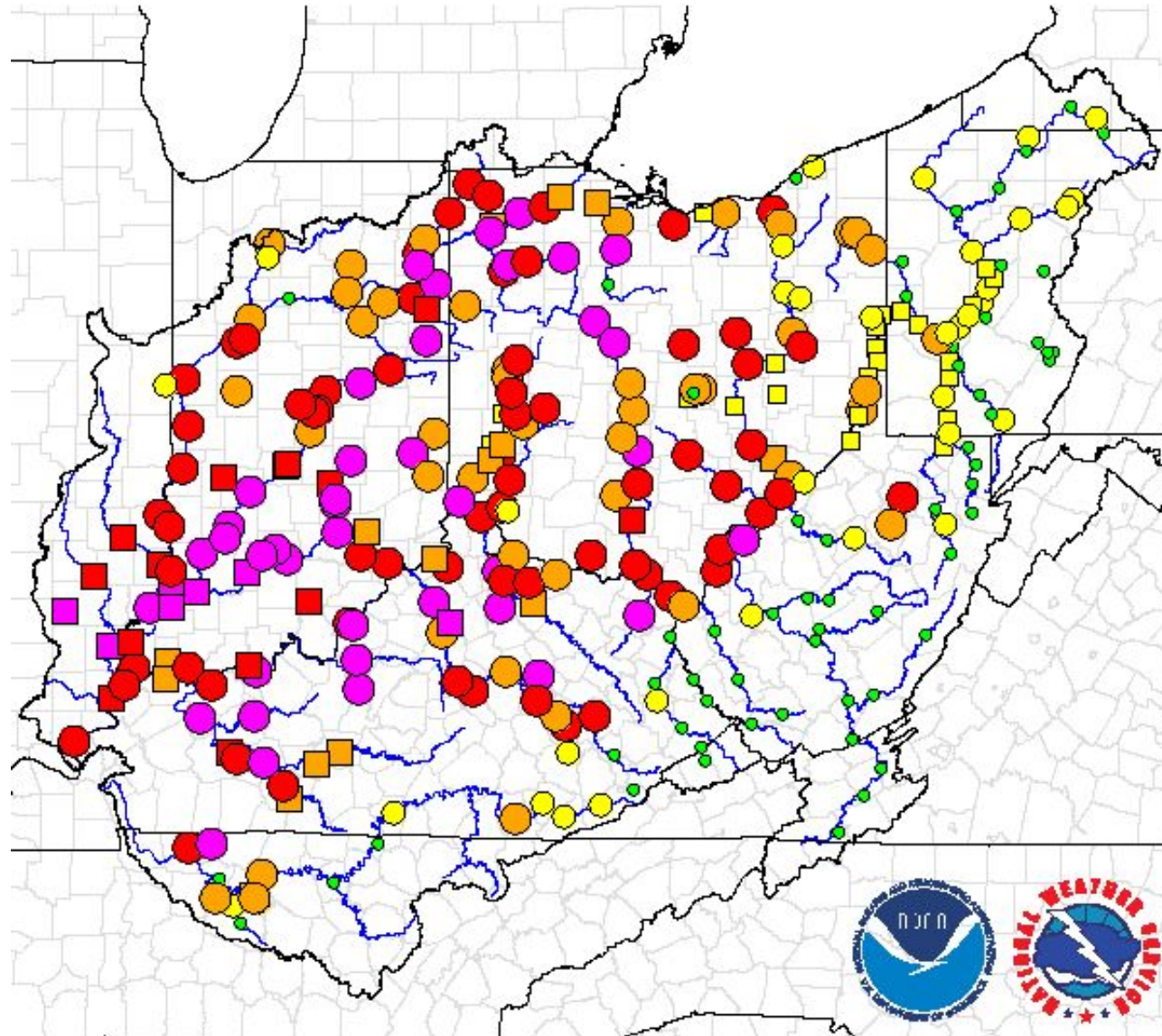




Major Flooding Likely Late Week

April 2, 2025
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This is an increasingly significant setup with potential for high impacts and life-threatening flooding spanning the course of several days. Be sure to prepare if you live in a flood zone!



10-Day Potential River Levels
2025-04-01 - 2025-04-11
NWS Ohio River Forecast Center

- Normal Flow
- 30% Exceedance 70%
- Action Stage ■
- Minor Flood ■
- Moderate Flood ■
- Major Flood ■

NAEFS Model Cycle:
2025040108Z

Issued Apr 01 19:33 EDT



NEVER DRIVE THROUGH FLOOD WATERS

Most flood fatalities
occur in vehicles

12 inches of water can
sweep a car off the road



weather.gov/flood

Be Prepared for Nighttime Tornadoes



NOAA Weather Radio

Test regularly and make sure it's tuned to your local station

Safe Place

Have a safe place prepared if you know storms are coming

Cell phone

Turned on, charged and Wireless Emergency Alerts enabled

Flashlight & Shoes

Keep flashlight and sturdy shoes handy