



Major Storm System Friday

March 13, 2025
5:23 PM

Strong Winds, Severe Storms, and Significant Fire Danger

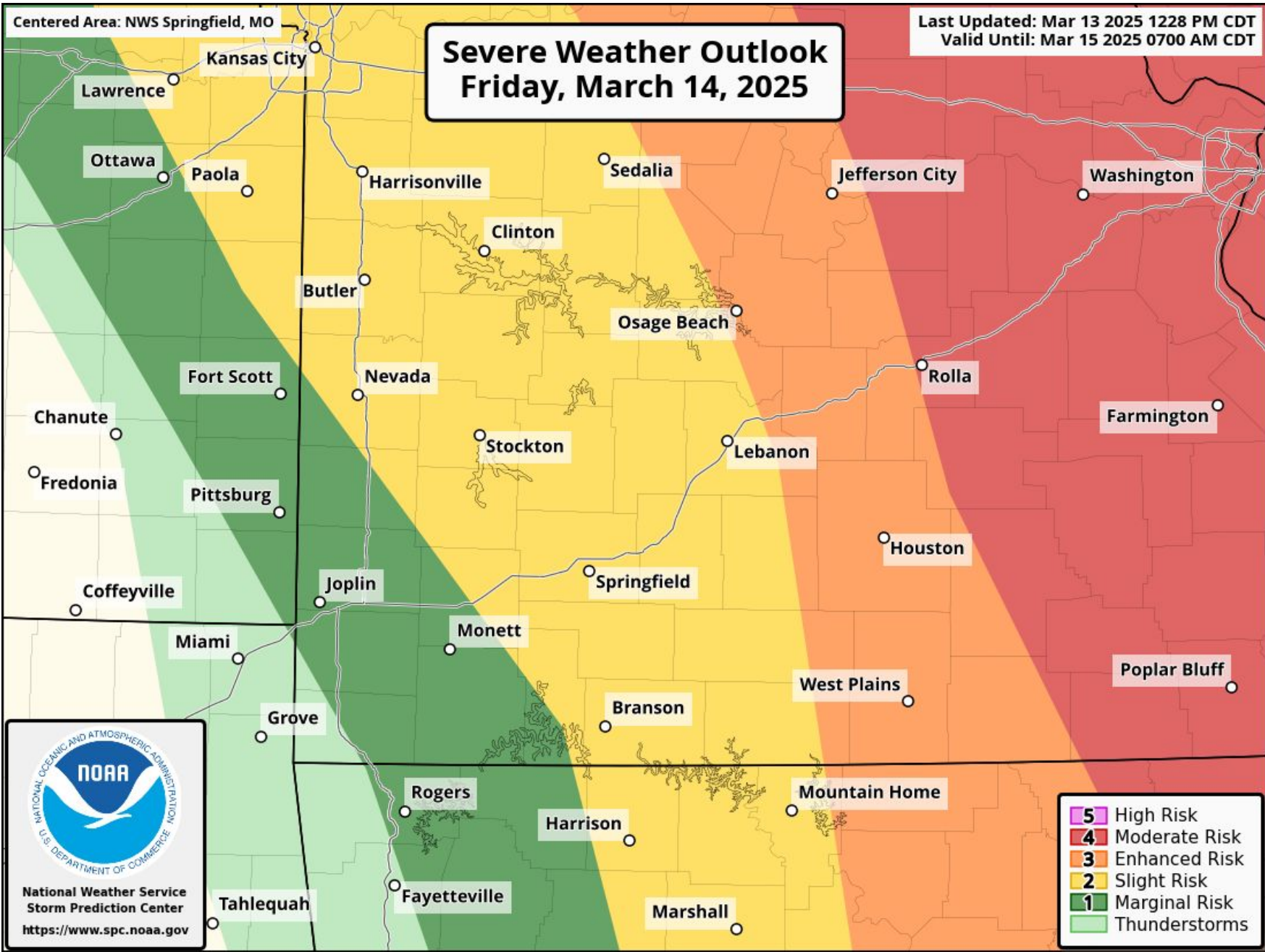
Key Messages

- Increasing severe thunderstorm risk from west to east on Friday, culminating in a Moderate (level 4 of 5) Risk in the far eastern Ozarks. Coverage remains in question.
- Very windy Friday (outside of storms), with potentially widespread damaging winds of 50 – 60+ mph.
- Low relative humidities again Friday, leading to widespread significant to extreme fire weather potential.

NEW

What Has Changed

- Timing of hazards
- Extra context and uncertainties for this event



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Hazards Timing Friday

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Strong Winds, Severe Storms, and Critically Extreme Fire Danger

Hazards	Friday March 14th						Saturday, March 15th	
	7am	10am	1pm	4pm	7pm	10pm	1am	4am
Wind Gusts	South 25 to 35 mph	South 35 to 45 mph	South 40 to 60+ mph	Southwest 40 to 60+ mph	Southwest 35 to 45 mph		Southwest 25 to 35 mph	
Strong to Severe Thunderstorms				Marginal & Slight Risk (1 & 2 of 5)	Enhanced & Moderate Risk (3 & 4 of 5)			
				I-49 to Hwy 63	Hwy 63 and east			
Fire Weather		Red Flag Warning Relative Humidity: 15-25%						



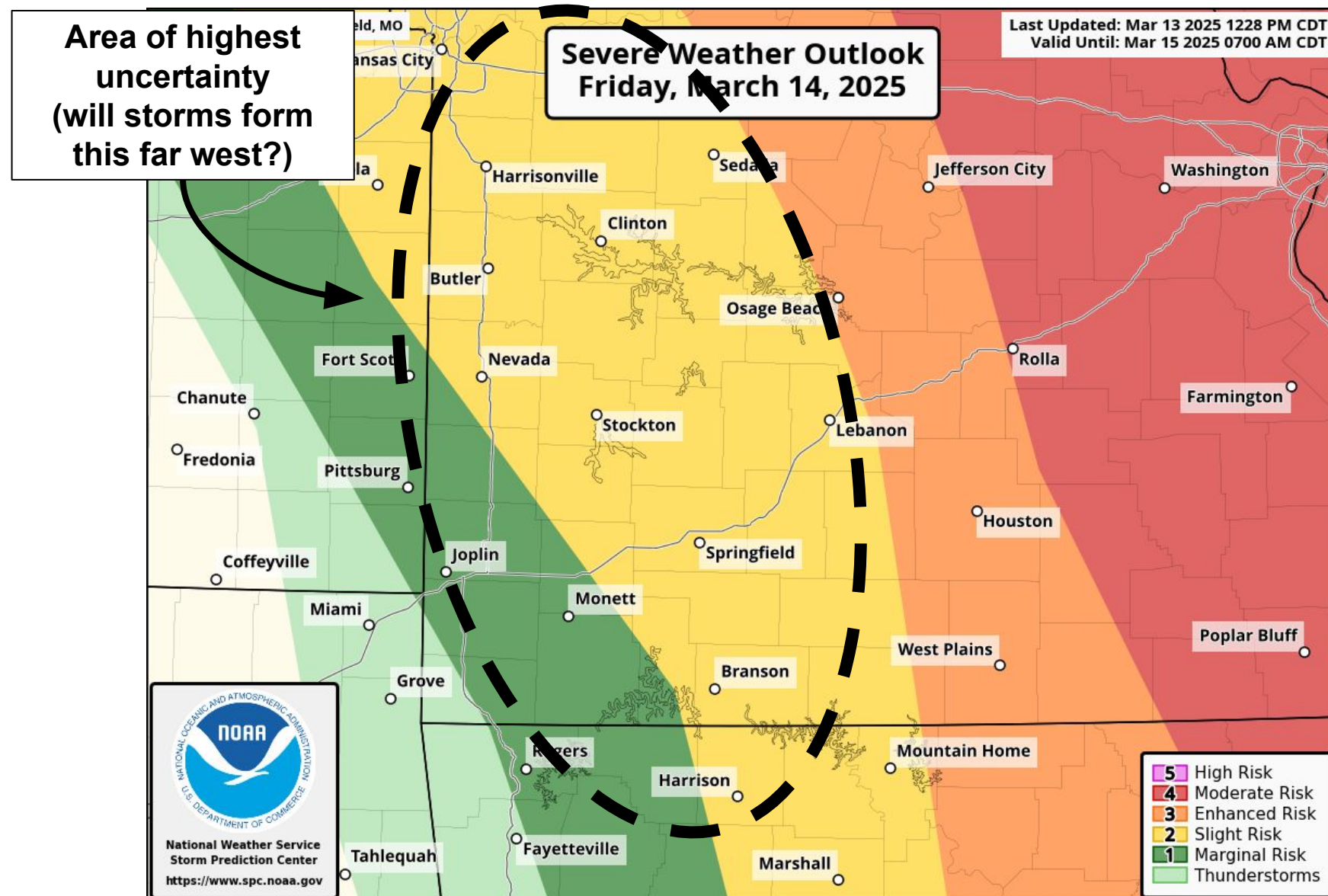


Severe Weather Potential on Friday

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All hazards possible with damaging winds the greatest threat

- If and where storms form, they move quickly. Severe weather is only expected through a short window of time (approx. 4 PM-10 PM Friday).
- Storms will move west to east, and severe risk increases to the east.
- If deep thunderstorm development occurs, large hail greater than 2", damaging winds greater than 75 mph (**hurricane force winds**), and tornadoes (some strong) would be possible, especially in the Enhanced (3; Orange) and Moderate (4; Red) areas.
- There is potential for many areas to remain dry, as models have trended lower in coverage.



Storm Window: 4 pm – 10 pm



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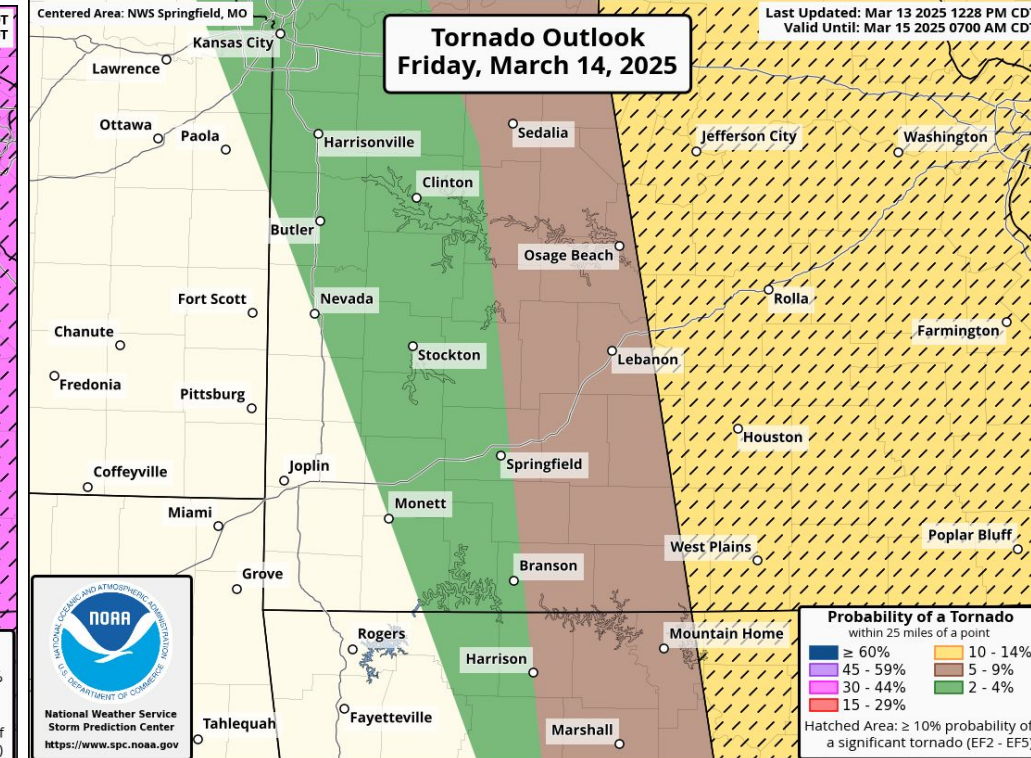
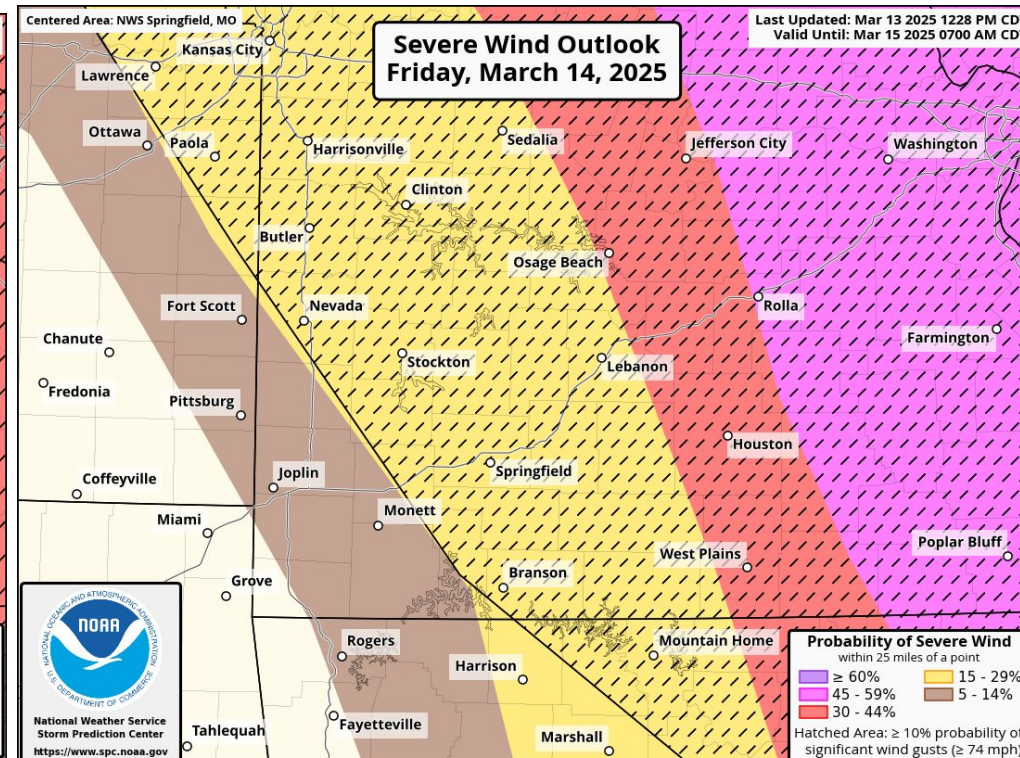
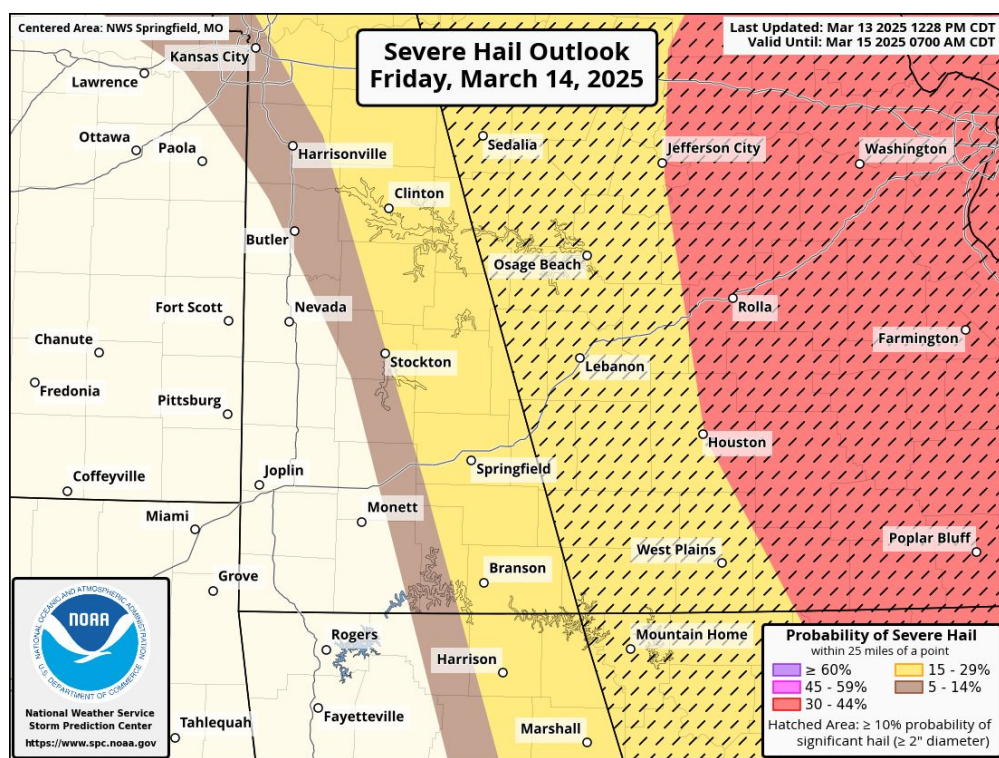
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SPC Outlook Hazards Friday

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Coverage and Initiation Still in Question



Hail Probability

Wind Probability

Tornado Probability

- All modes of severe weather are possible if and where thunderstorms can develop. Coverage and potential remains in question at this time.
- If thunderstorms can become established, large hail greater than 2", damaging winds greater than 75 mph (**hurricane force winds**), and tornadoes (some strong) would be possible in the black hatched areas.

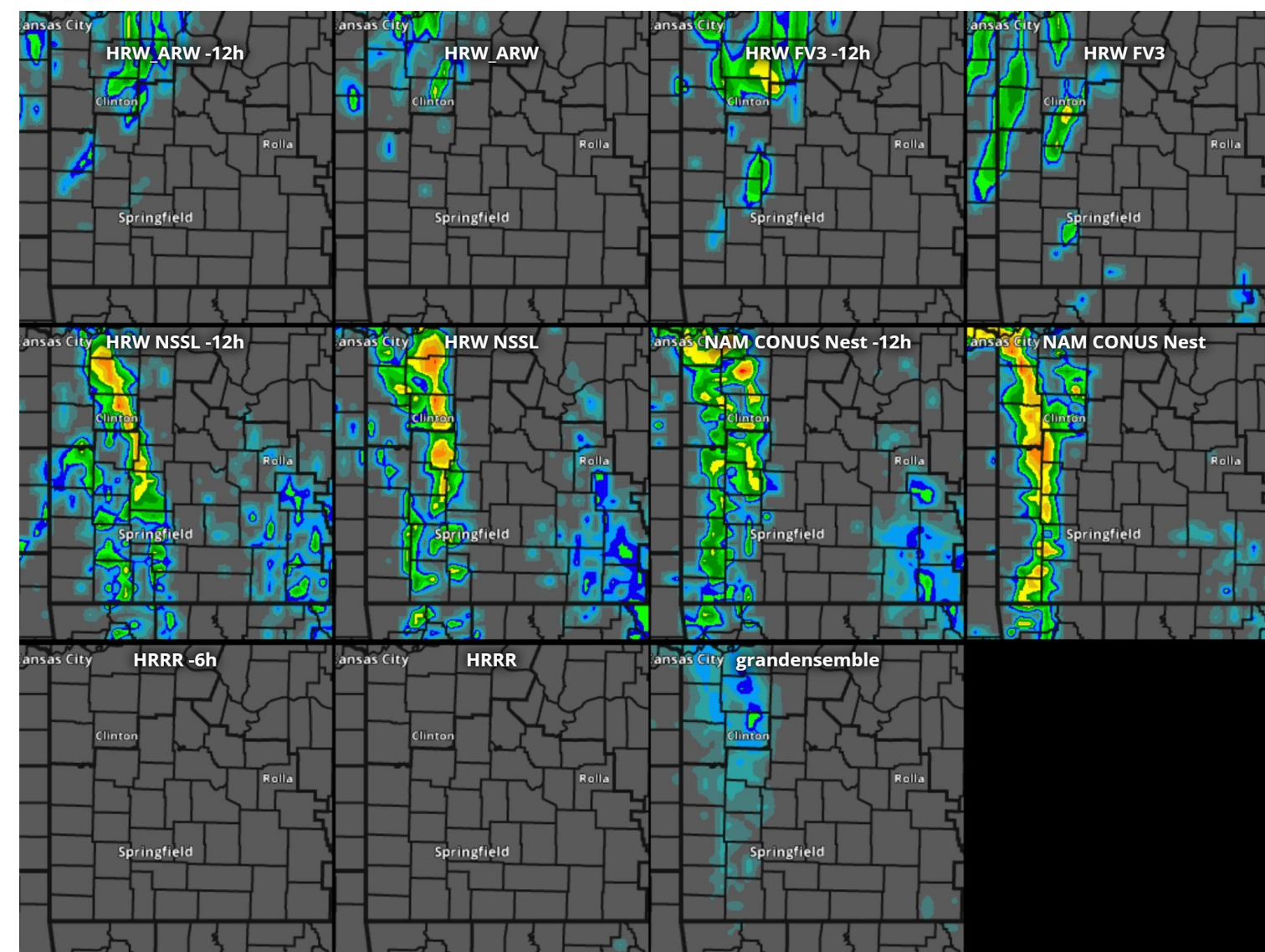




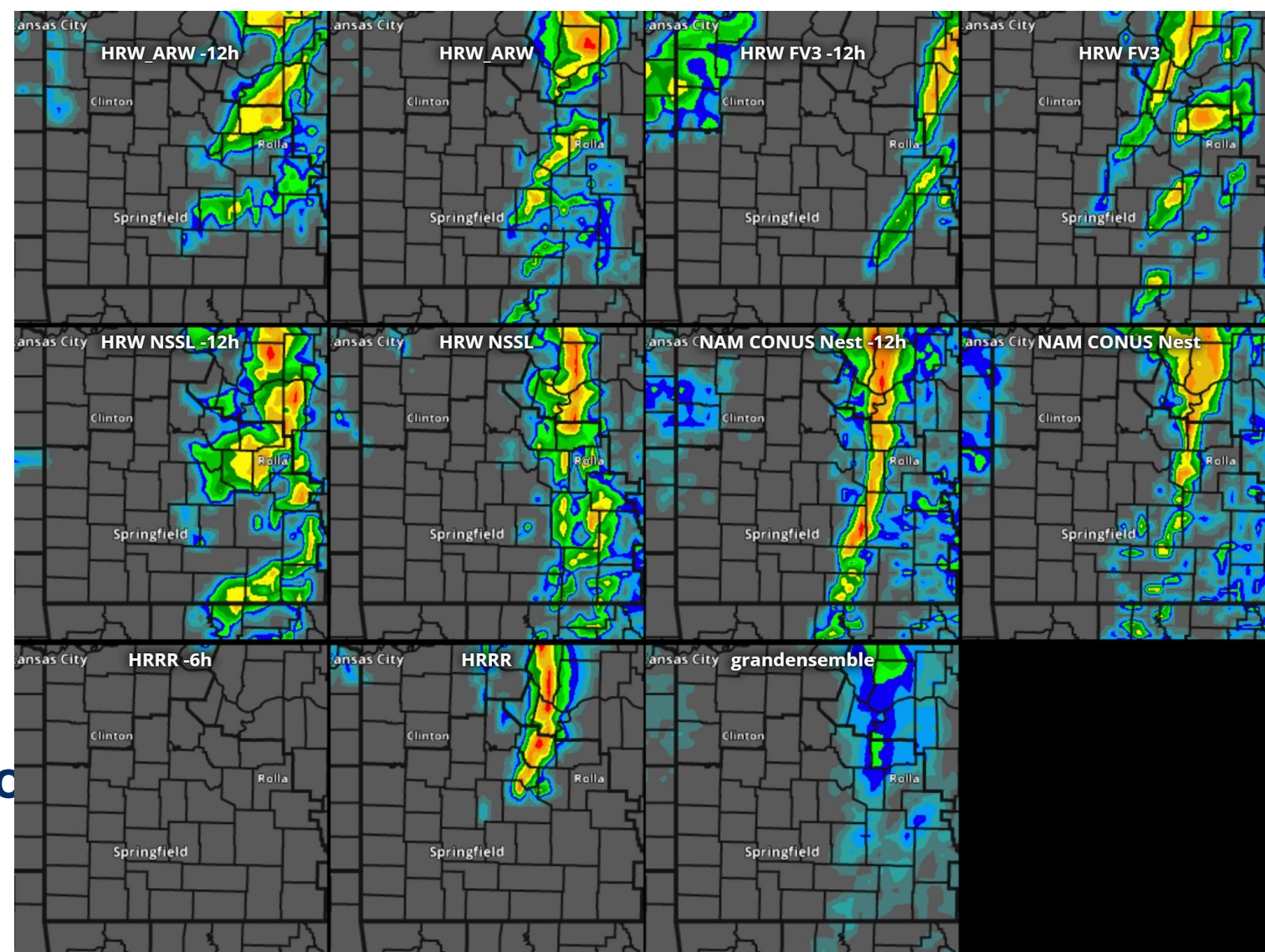
Severe Hazard Uncertainties

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Different model output for the same timeframes (zoom in for better viewing)



4 PM CDT



7 PM CDT

- How far west storms initiate is still uncertain. If they do initiate, this would be in the 1-5 PM timeframe.
- Higher confidence in storms initiating east of Highway 65 within the 5-8 PM timeframe.



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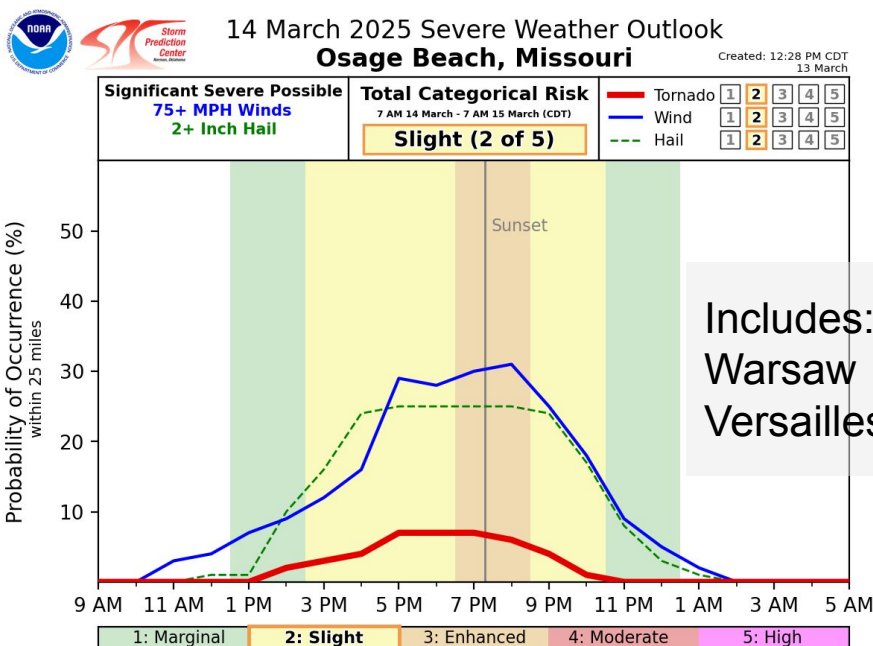
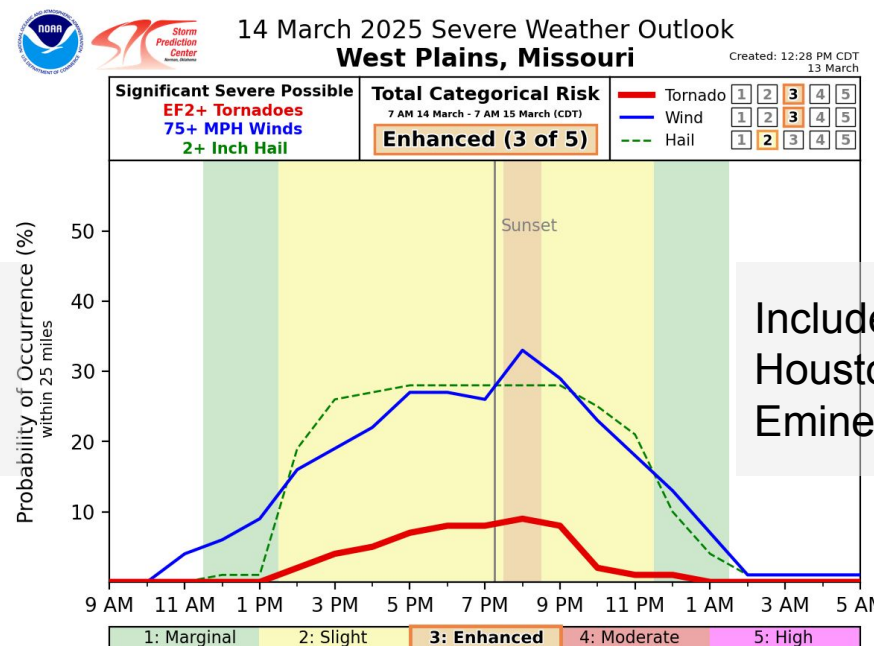
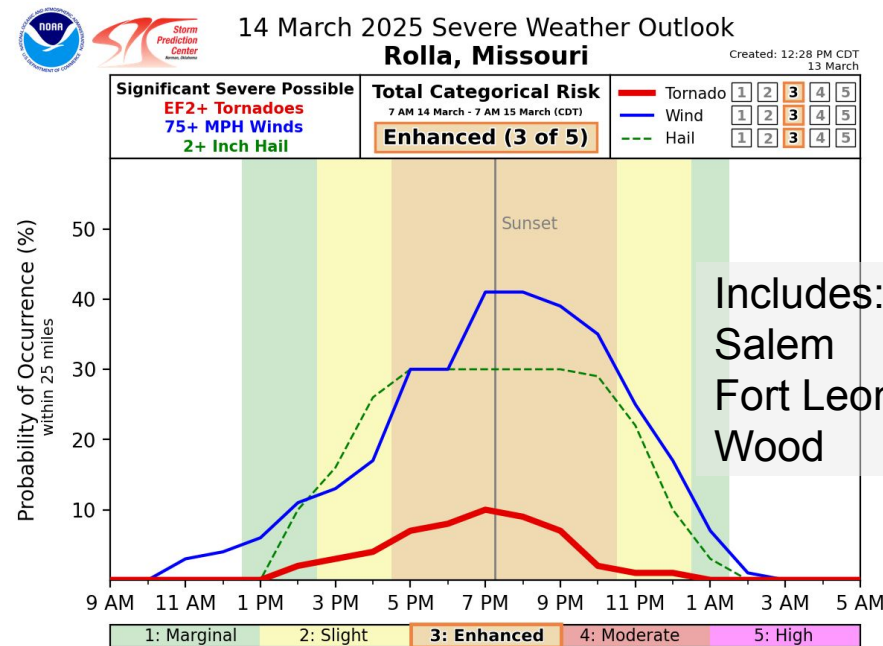
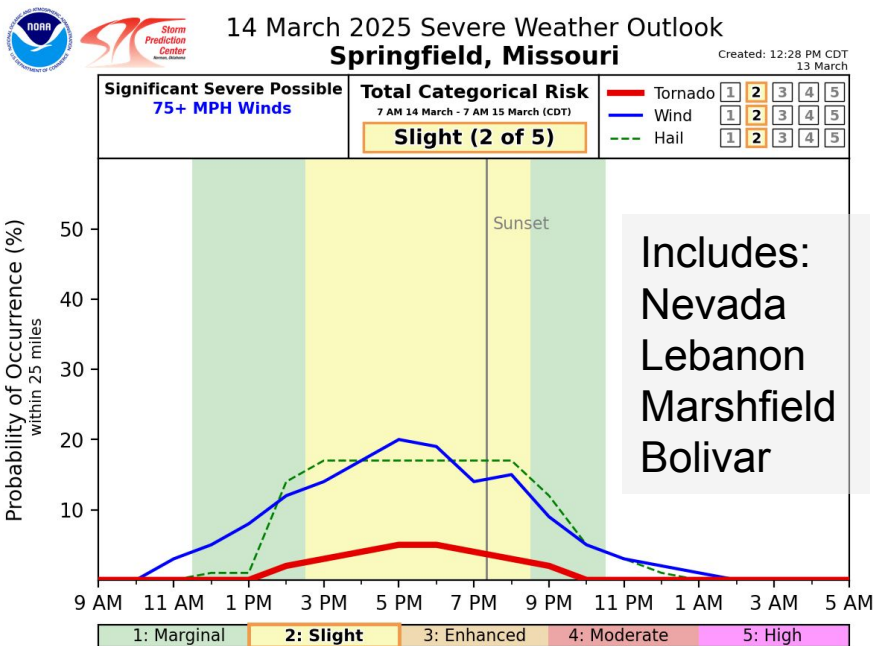
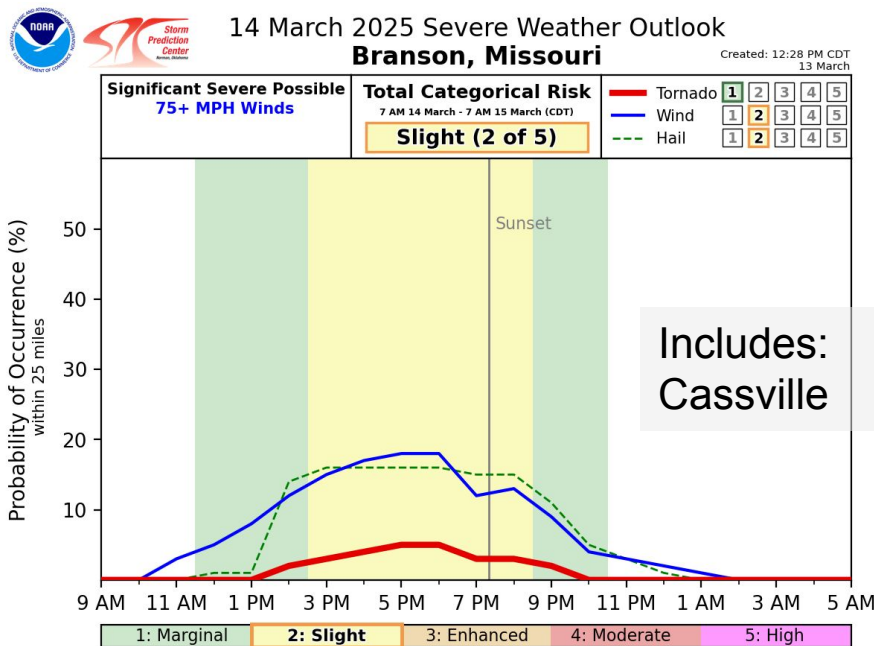
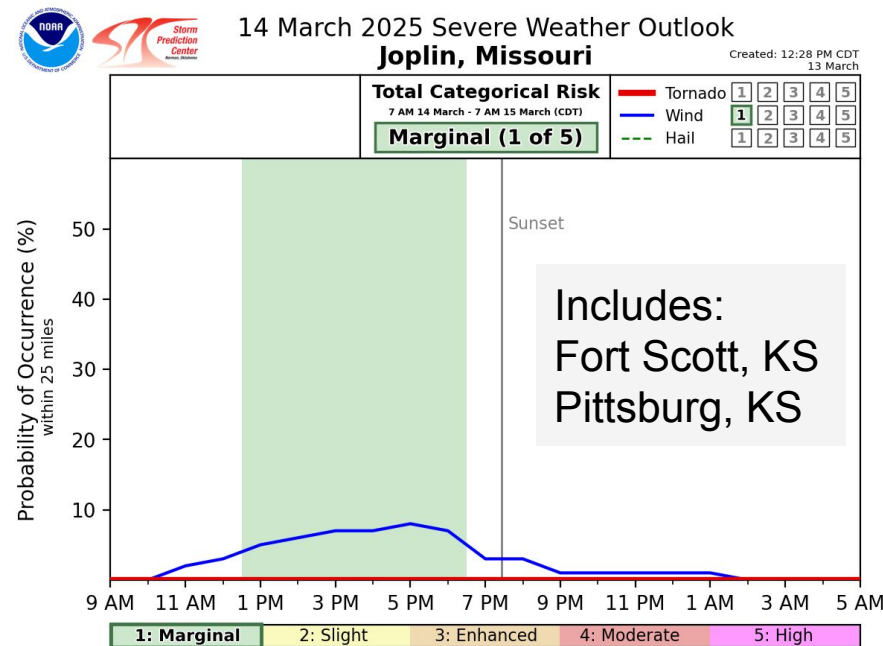
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Severe Hazard Timing/Hazards

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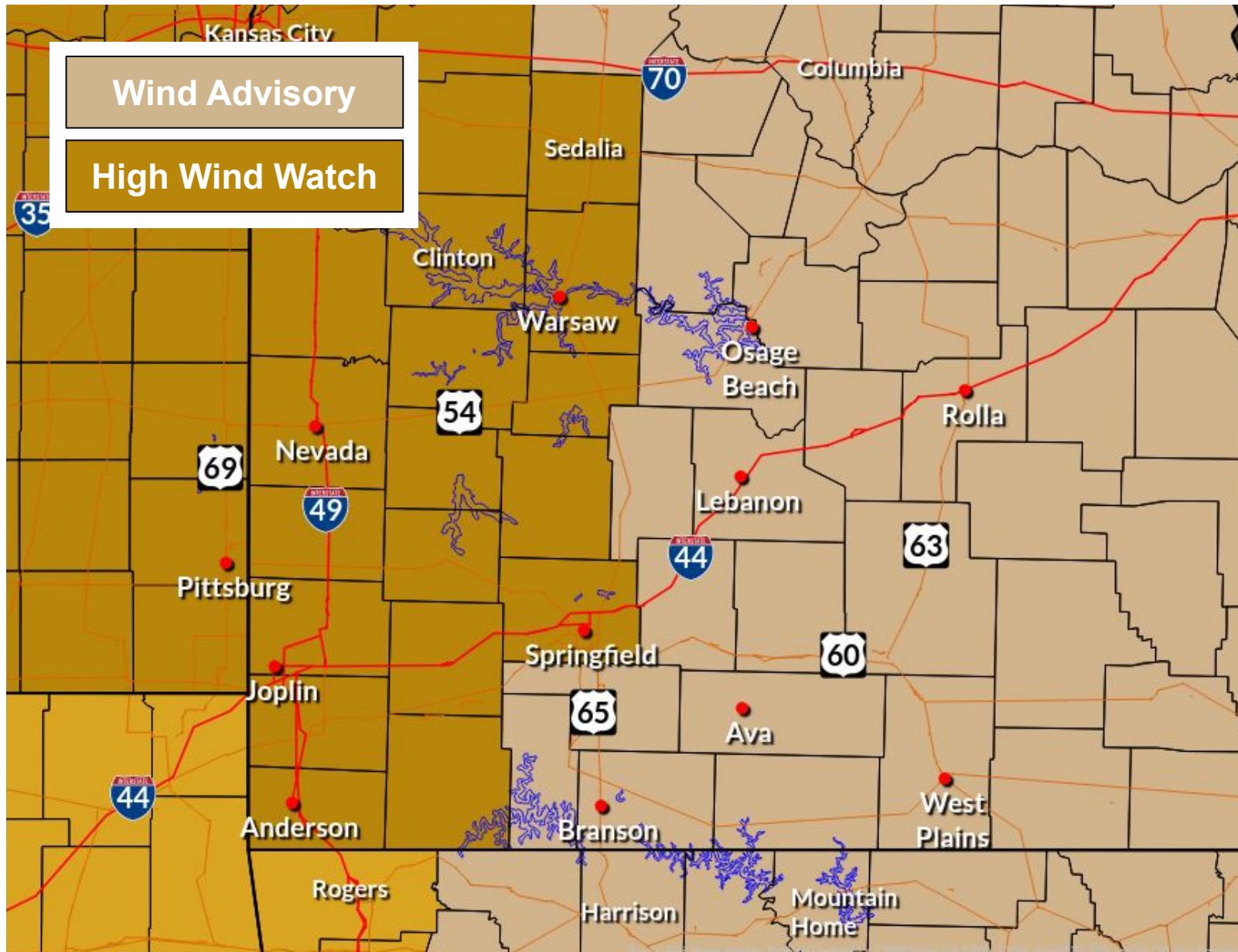
Coverage and Initiation Still in Question





Wind Headlines

March 13, 2025
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High Wind Watch: 10 AM - 8 PM Fri

Sustained 30-40 mph
Gusts up to 60+ mph

Wind Advisory: 10 AM Fri - 1 AM Sat

Sustained 25-35 mph
Gusts up to 55 mph

Impacts:

- Difficult driving, especially high profile vehicles
- Tree/powerline damage
- Possible power outages
- Loose objects blown around

High Wind Watch and Wind Advisory Friday





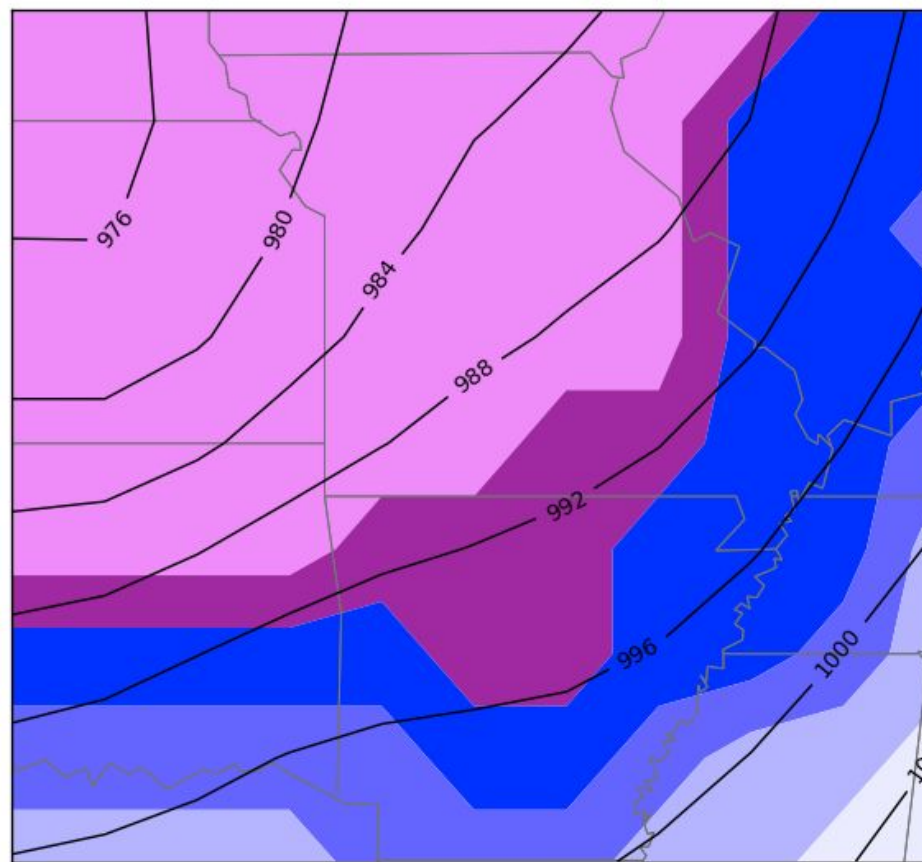
Wind Historical Context

March 13, 2025
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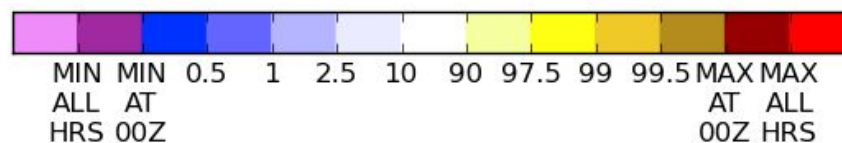
Historical context gives high confidence in a potentially extreme wind event

- According to climatology from 1979-2009 for **March**, this will be the lowest pressure experienced for much of Missouri/Kansas (pink colors)
- Extreme Forecast Index indicates values up to 0.9-0.99 for wind gusts in much of our area. This indicates that 90-99% of wind gust forecasts are greater than the 2004-2025 climatology for March.
- Both indicate potential for very strong wind gusts leading to extremely critical fire weather conditions, especially west of Highway 65.

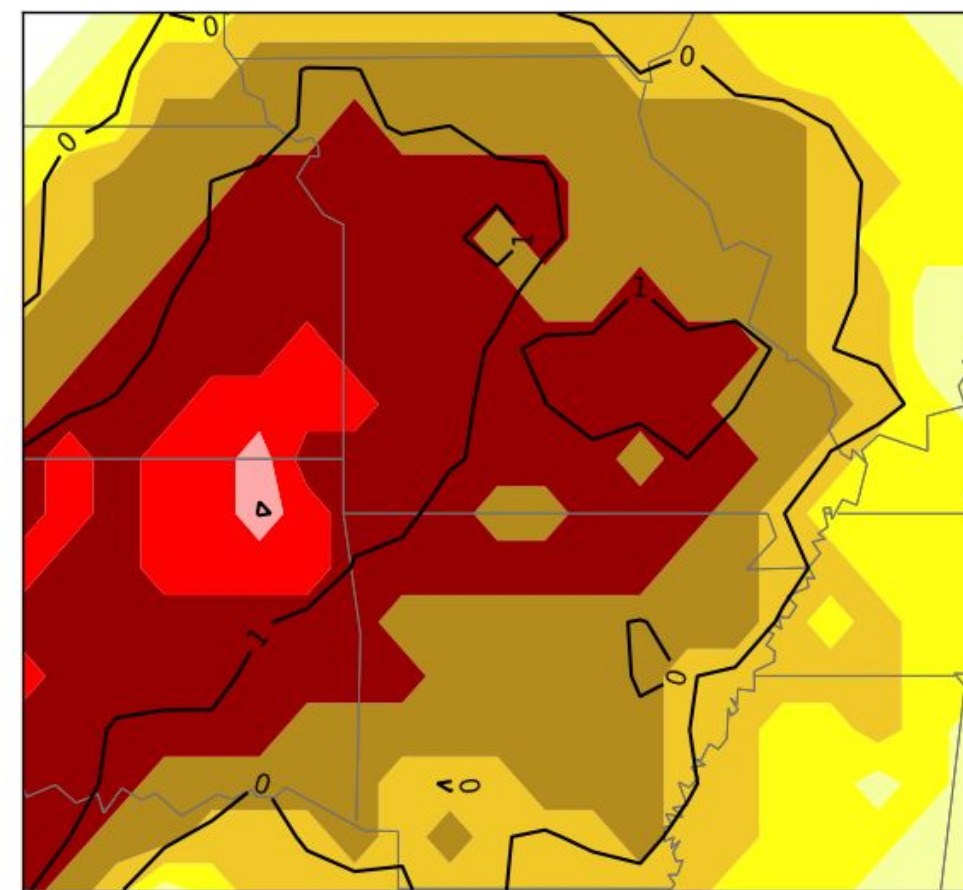
Sea Level Pressure



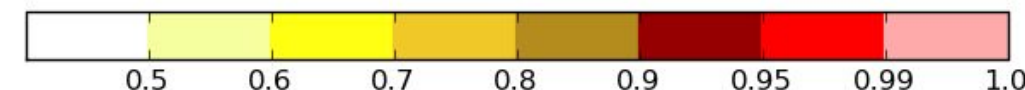
Relative to the 04-Mar to 25-Mar 1979-2009 CFSR climatology



Wind Gust Index



Relative to the ECMWF reforecasts from a 5 week period (2004 - 2025) centered on the week this forecast was initialized

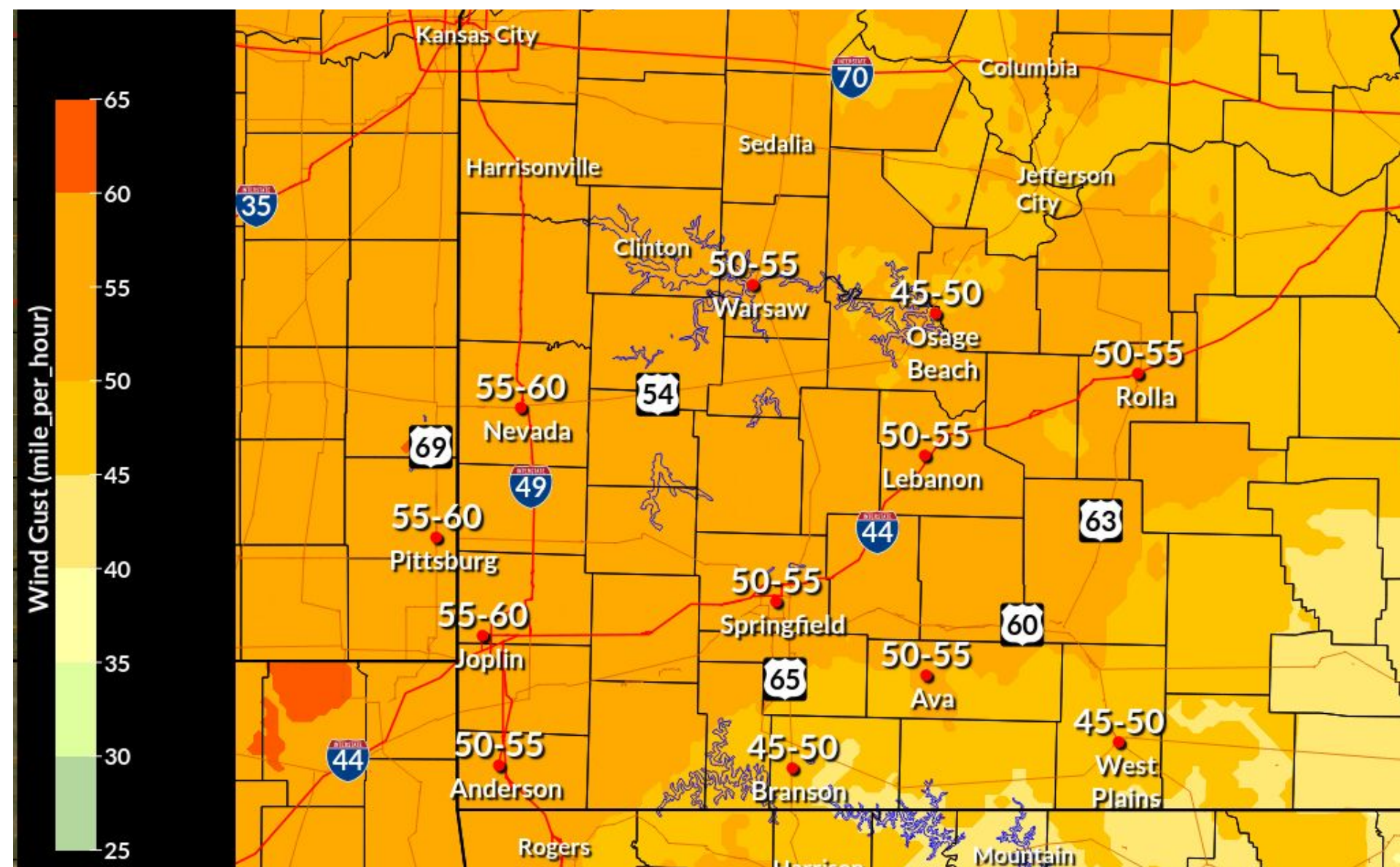




Wind Gusts Friday

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Potential for higher wind gusts than what is shown here



- Sustained south to southwest winds between 30-40 mph with gusts up to 50-60 mph are expected on Friday.
- Infrequent gusts greater than 60 mph are possible.
- These winds will occur outside of any thunderstorms (gusts with any thunderstorms may be higher).
- **For reference, 58 mph winds is the criteria for a Severe Thunderstorm Warning.**

Wind Gusts Friday



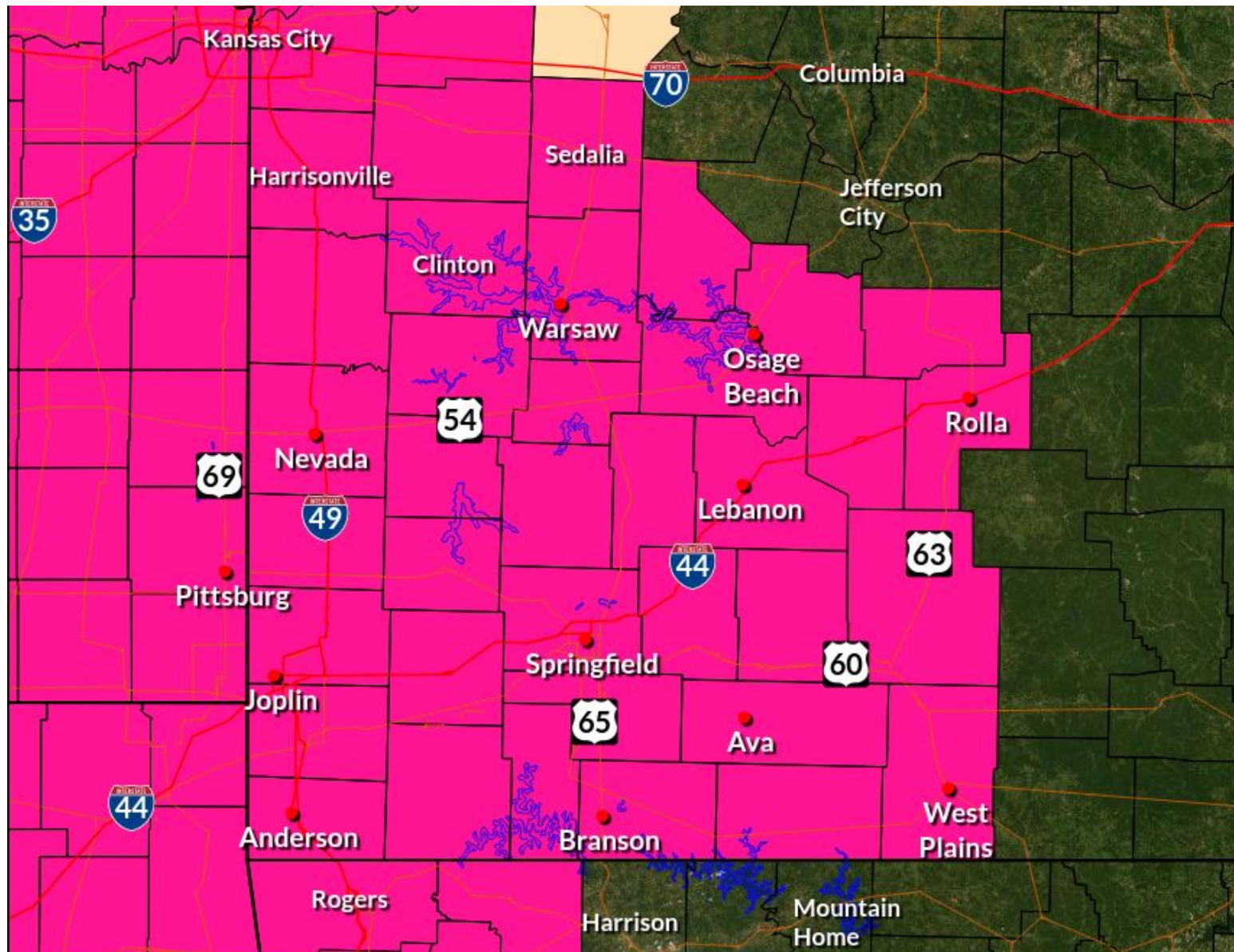
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Fire Danger and Headlines Friday

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Red Flag Warning Friday

Red Flag Warning: 10 AM - 1 AM Sat
Relative humidity as low as 15-25%
Winds 25-40 mph with gusts 55-60 mph

- Significant to Critically Extreme fire danger is expected Friday in areas covered by the Red Flag Warning.
- This is due to very high winds and relative humidities of 15–25% as a dryline sweeps through the area.
- Fire control will be extremely difficult. Recent dry weather has already resulted in unusual fire spread and behavior this week.

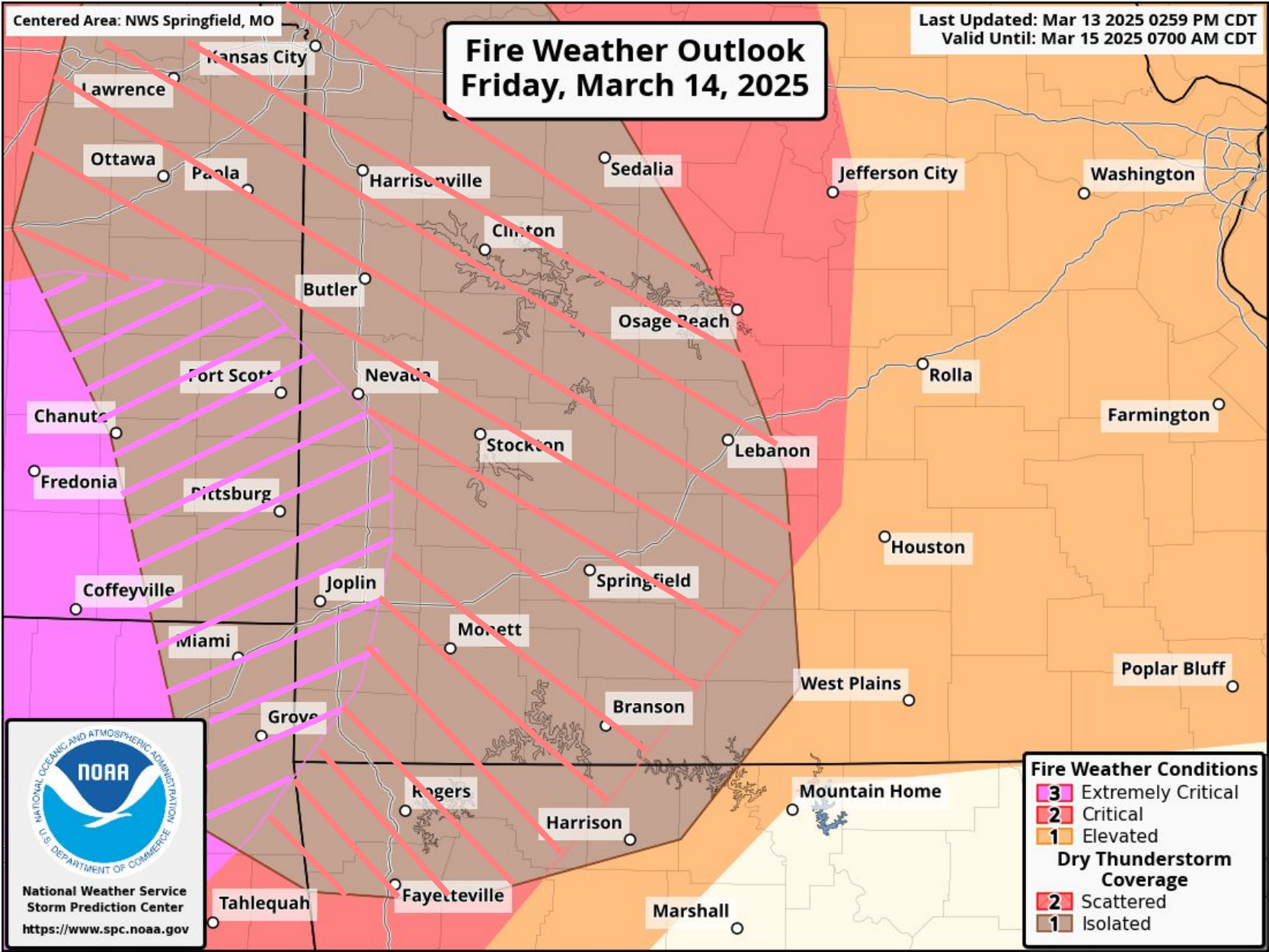
Any burning is strongly discouraged!





Extreme Fire Danger Friday

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SPC Fire Weather Outlook

- Most Critically Extreme fire danger is along and west of I-49 (pink color). Elevated (orange) to Critically Significant (red) fire danger expected along and west of Highway 63.
- There is also a low potential for isolated dry thunderstorms along and west of Highway 63 (brown color). This means that lightning could start fires.
- For context, our area has not received an “Extremely Critical” SPC Fire Weather Outlook before, highlighting a potential historic event.

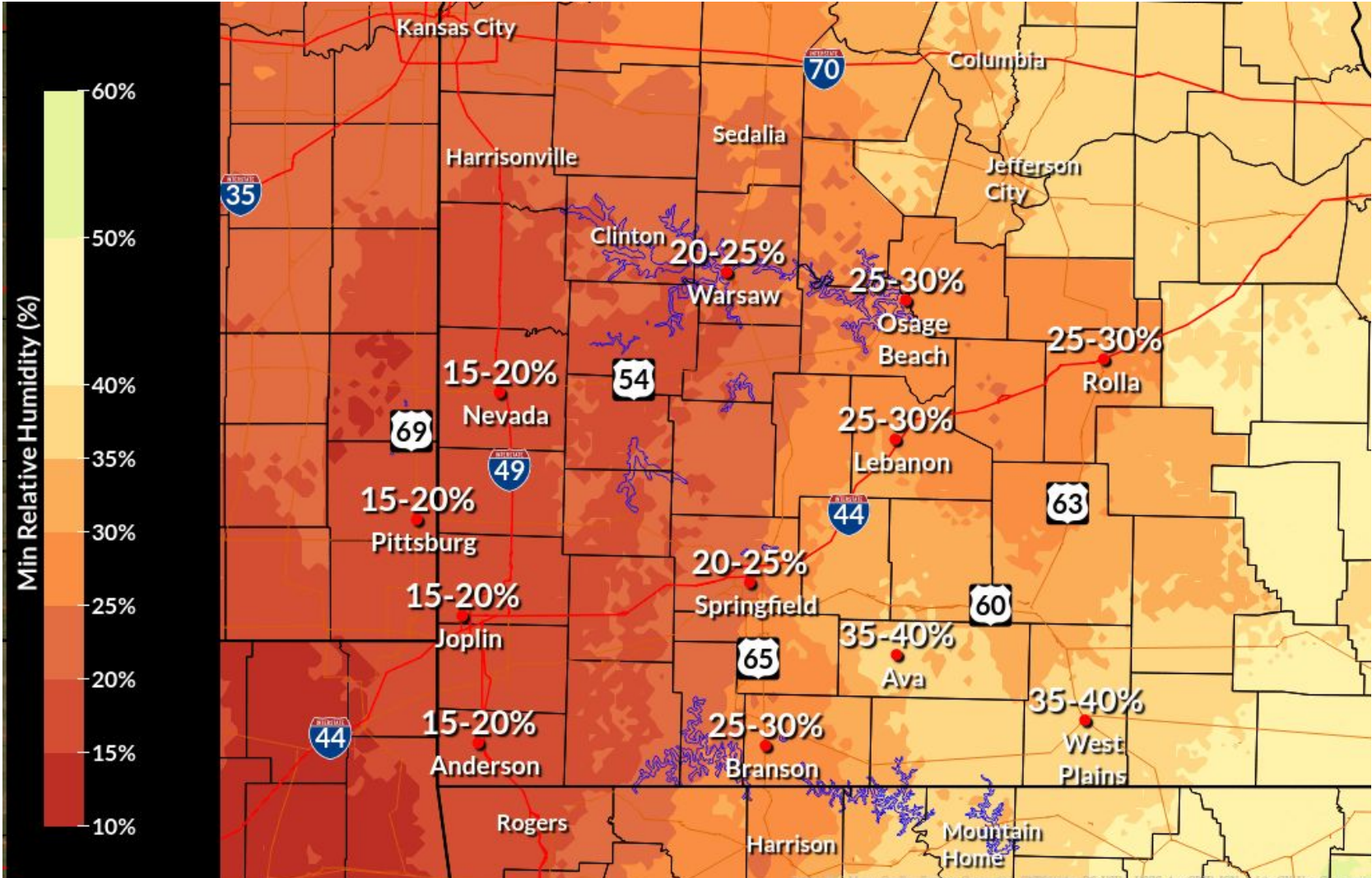
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Relative Humidities Friday/Saturday

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Minimum Relative Humidity Friday

- Driest conditions expected west of Highway 65 between 2 PM and 11 PM.
- Relative humidity will slowly rise after 1 AM Saturday.
- 25-35% Relative humidity expected Saturday





Fire Danger This Weekend Into Next Week

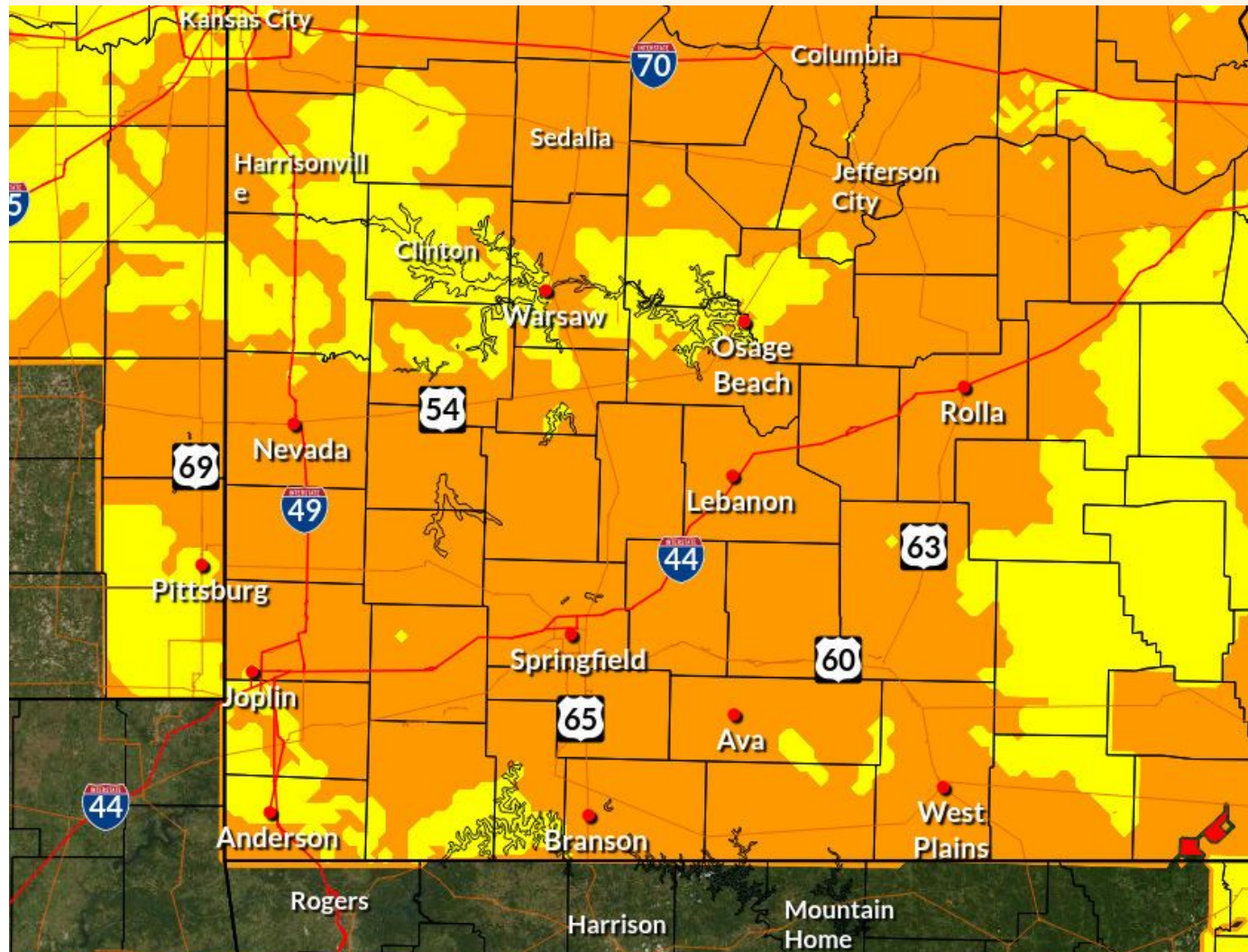
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Signal for fire weather conditions to continue this weekend into next week



Sunday

Humidity: 20-30% Wind Gusts: 15-25 mph



High

Very High

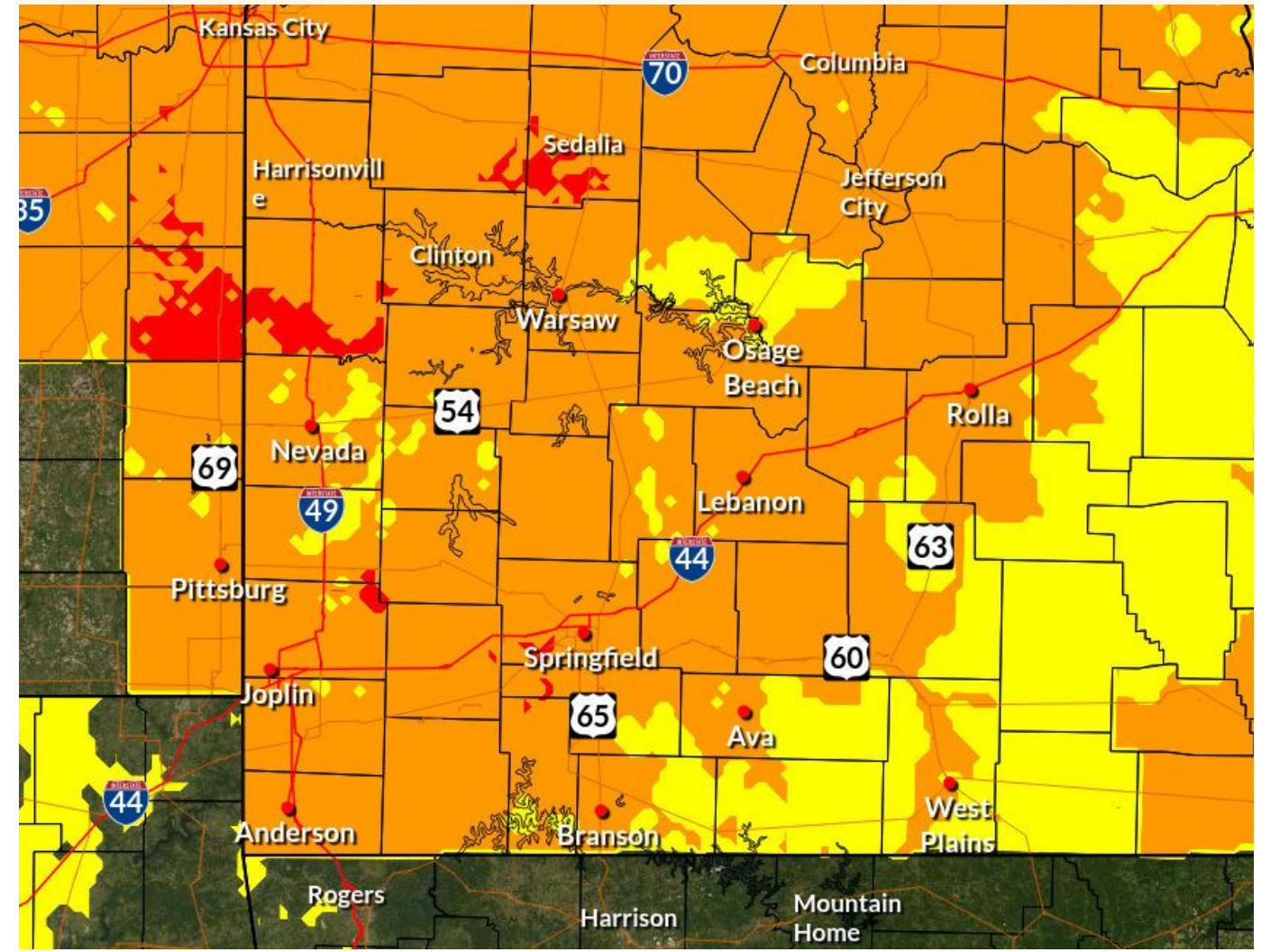
Significant

Extreme



Monday

Humidity: 20-35% Wind Gusts: 25-35 mph



High

Very High

Significant

Extreme



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Fire Danger Next Week

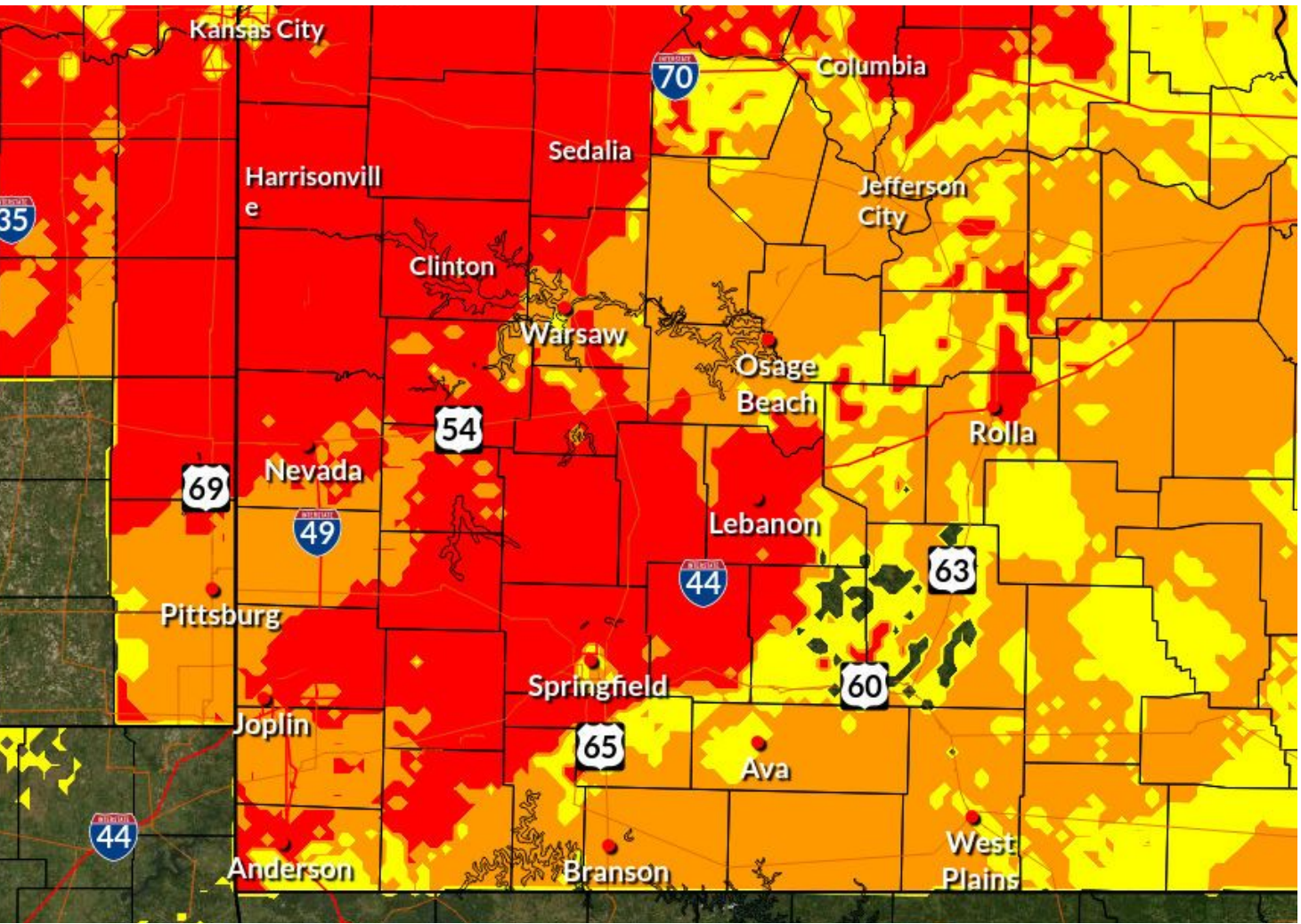
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Signal for fire weather conditions to continue into next week



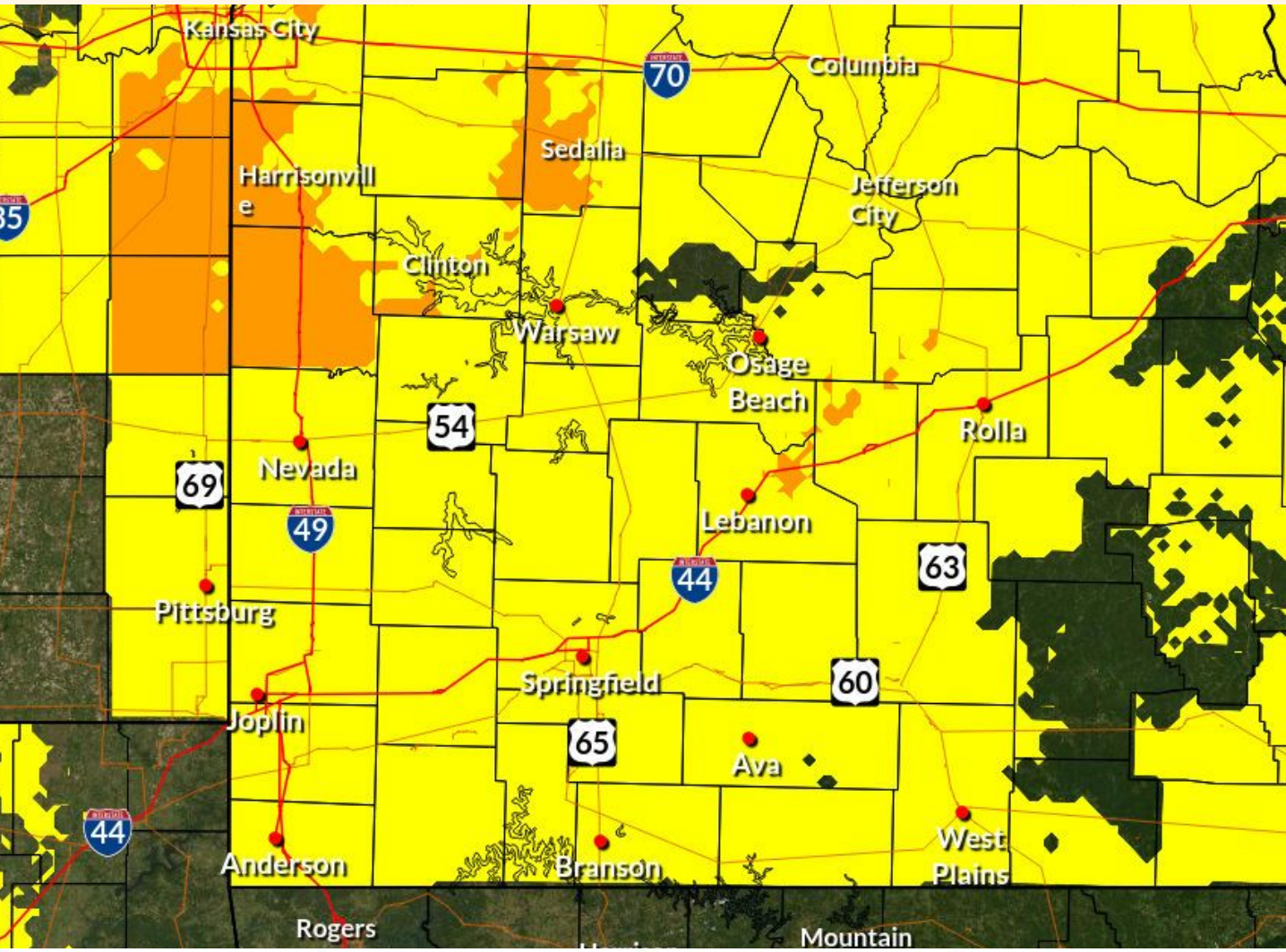
Tuesday

Humidity: 25-35% Wind Gusts: 30-40 mph



Wednesday

Humidity: 35-45% Wind Gusts: 25-35 mph





For Additional Information

- [NWS Springfield Webpage](#)
- [IDSS Point Forecasts](#)
- [Graphical Hazardous Weather Outlook](#)
- [Fire Weather Dashboard](#)
- [NWS Springfield Fire Page](#)
- [NWS Spot Forecast Page](#)
- [SPC Convective Outlooks](#)
- [Submit Storm Reports](#)

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THUNDERSTORM WATCH

A Severe Thunderstorm Watch is issued when **a severe thunderstorm is possible.**

Stay tuned to forecast updates, monitor sky conditions, and know where to take shelter.

Be Prepared.



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THUNDERSTORM WARNING

A Severe Thunderstorm Warning is issued when **a severe thunderstorm is happening or about to happen.**

Take shelter immediately!

Take Action!

STORE OR SECURE LOOSE ITEMS BEFORE STRONG WINDS



Patio furniture



Sports equipment



Trash cans



Trampolines



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