



Extreme Heat Warning

July 21, 2025
2:44 AM

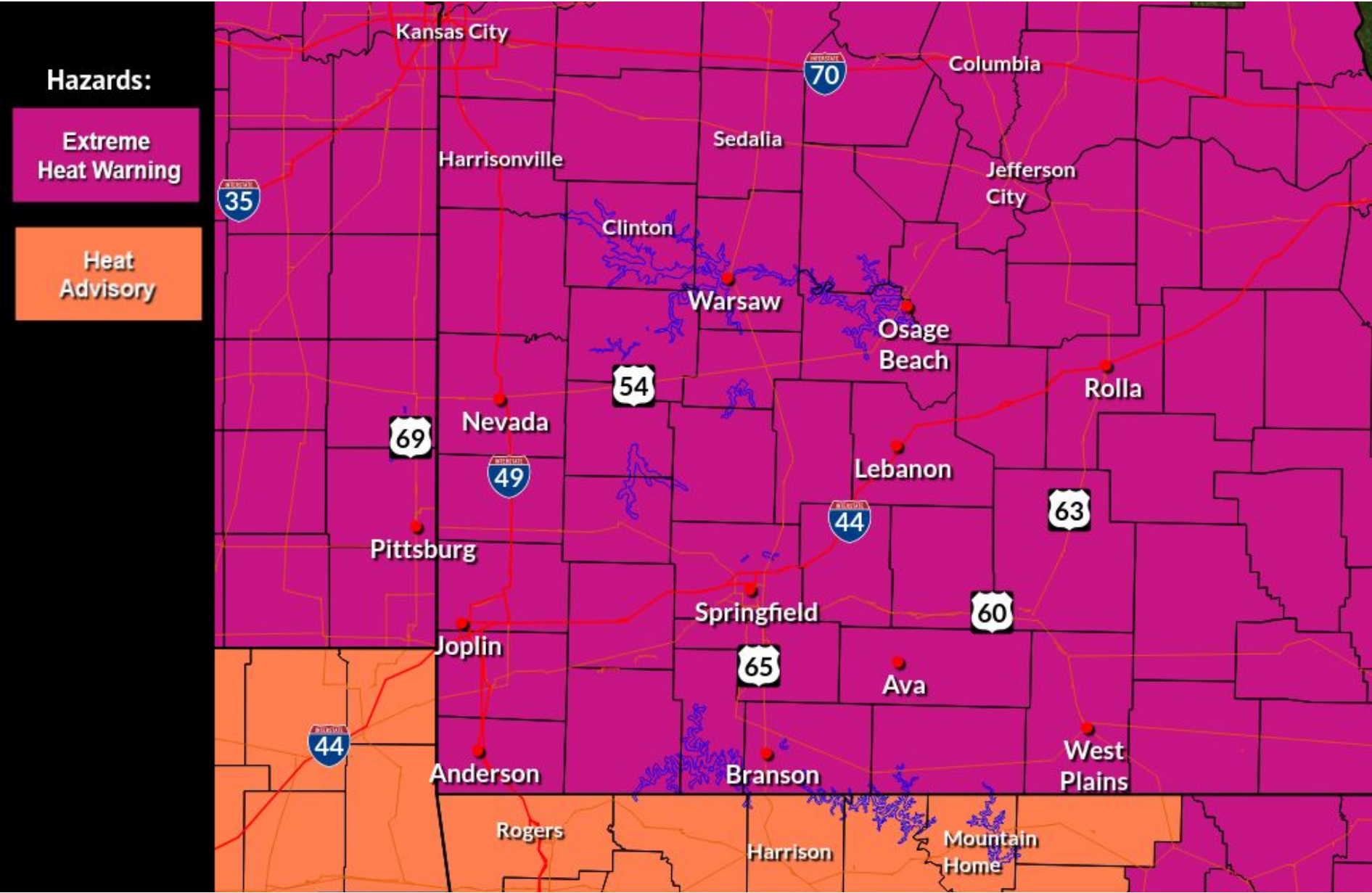
Today through Thursday

Key Messages

- Persistently hot and humid conditions will occur across the area this week.
- Daily afternoon highs in the mid to upper 90s will lead to heat index values between 100-110 degrees through at least Thursday.
- Warm overnight temperatures in the 70s each night to provide little relief from the heat.
- An Extreme Heat Warning is in effect through 7 PM Thursday.

Next Scheduled Briefing

- Monday afternoon by 5 PM



Heat Headlines





Extreme Heat Warning

July 21, 2025
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In Effect through 7 PM Thursday



Key Messages

- Dangerous heat expected to continue through at least Thursday, with daily heat index values of 100° to 110°.
- While heat is not expected to be excessively hot any specific day (>110 F Heat Index), the combination of multiple consecutive days of 100-110 F Heat Index values and very warm low temperatures creates a high heat risk.
- Heat exhaustion, heat stroke, dehydration, and little nighttime heat relief are all hazards.



Actions



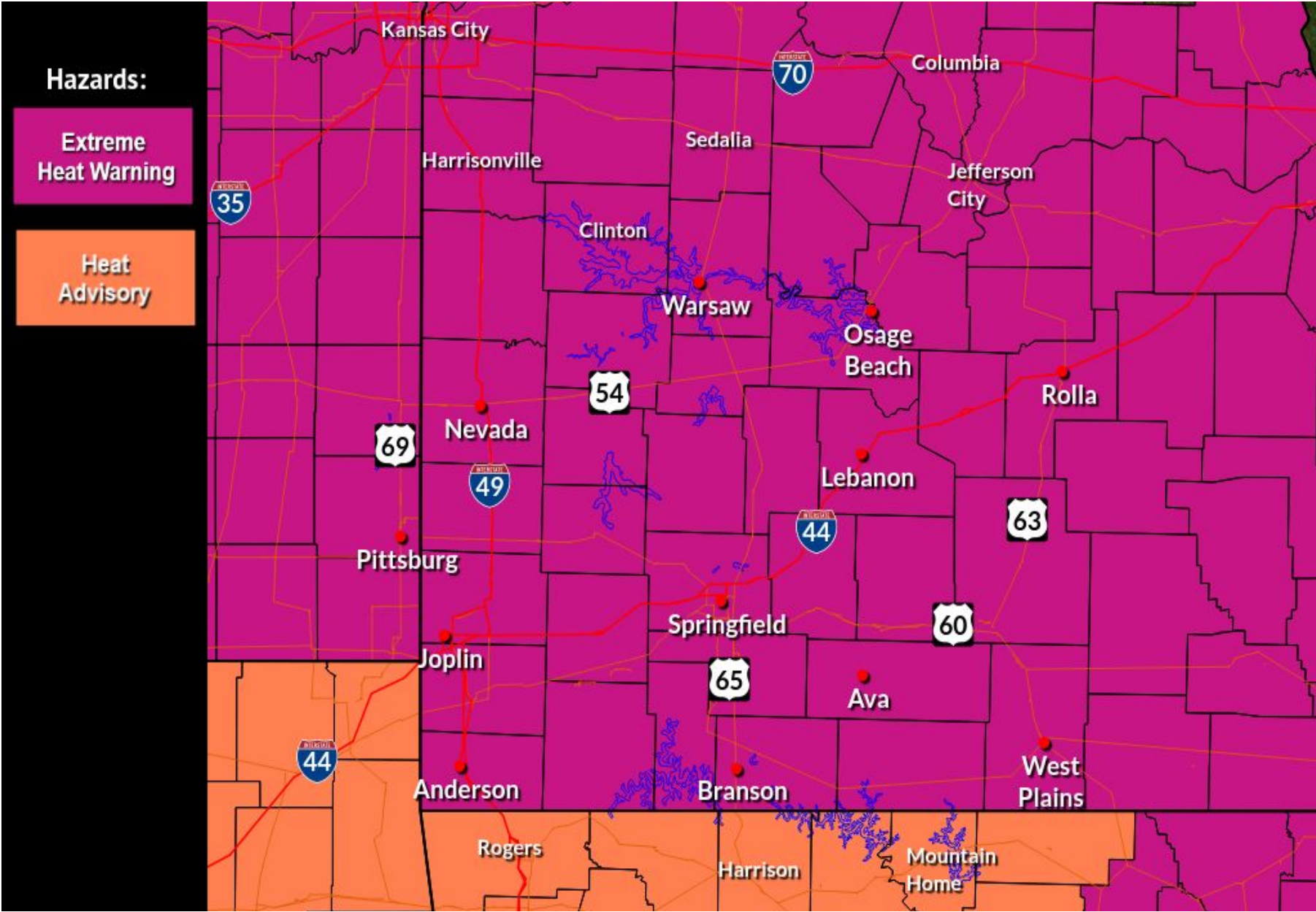
Never leave kids
or pets in the car



Check on the
elderly



Drink plenty
of water



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

National Weather Service
Springfield, MO



Heat Headlines Criteria

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Reminder after Consolidation of Heat Headlines

Heat Advisory (HT.Y)	<p>Heat index of 105 deg F to 109 deg F or</p> <p>Heat index of 100 deg F for 4 days.</p> <p>Criteria may be modified at forecaster discretion based on expected impacts.</p>
Extreme Heat Warning (EH.W)	<p>Heat index of 110 deg F or</p> <p>Heat index of 105 deg F for 4 days.</p> <p>Criteria may be modified at forecaster discretion based on expected impacts.</p>

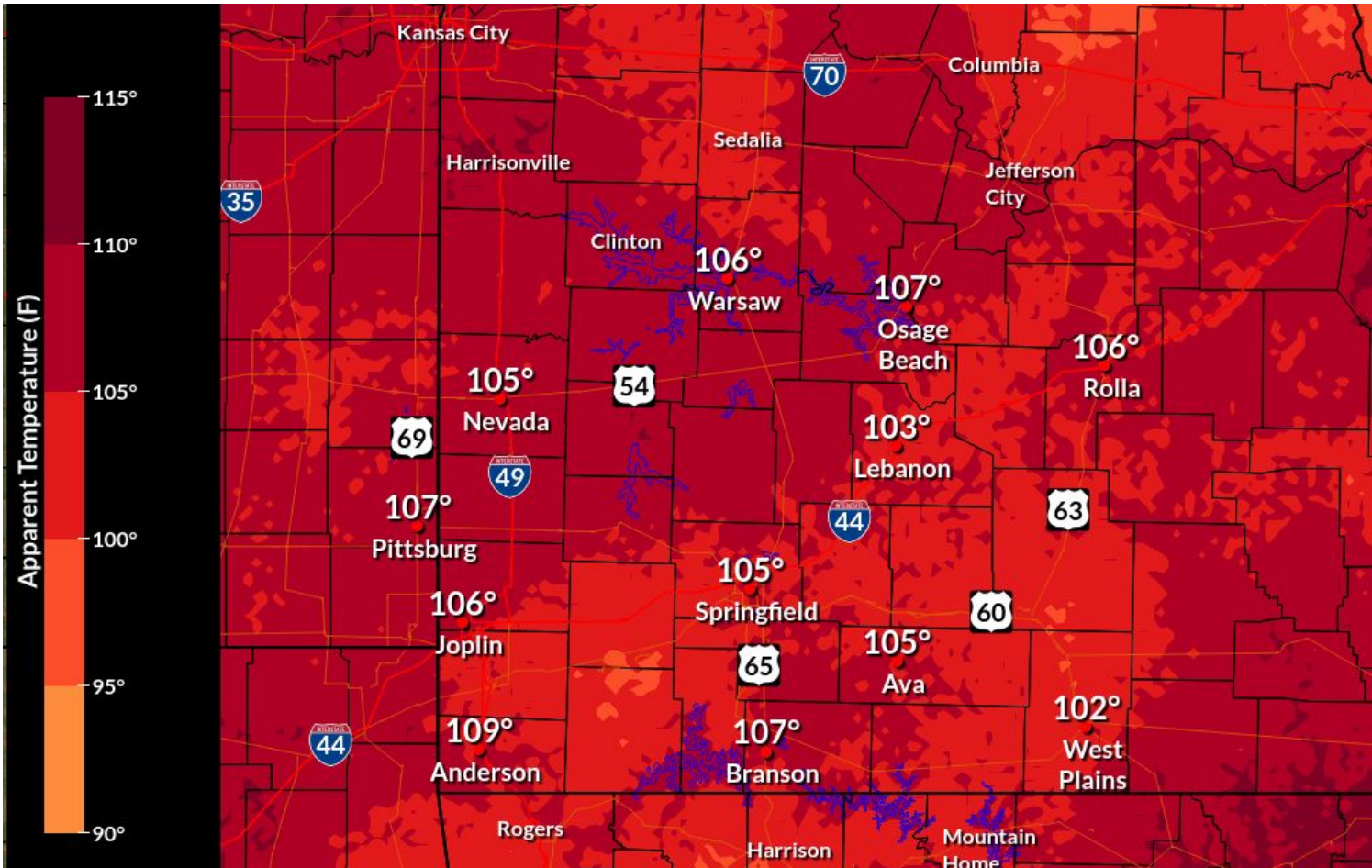




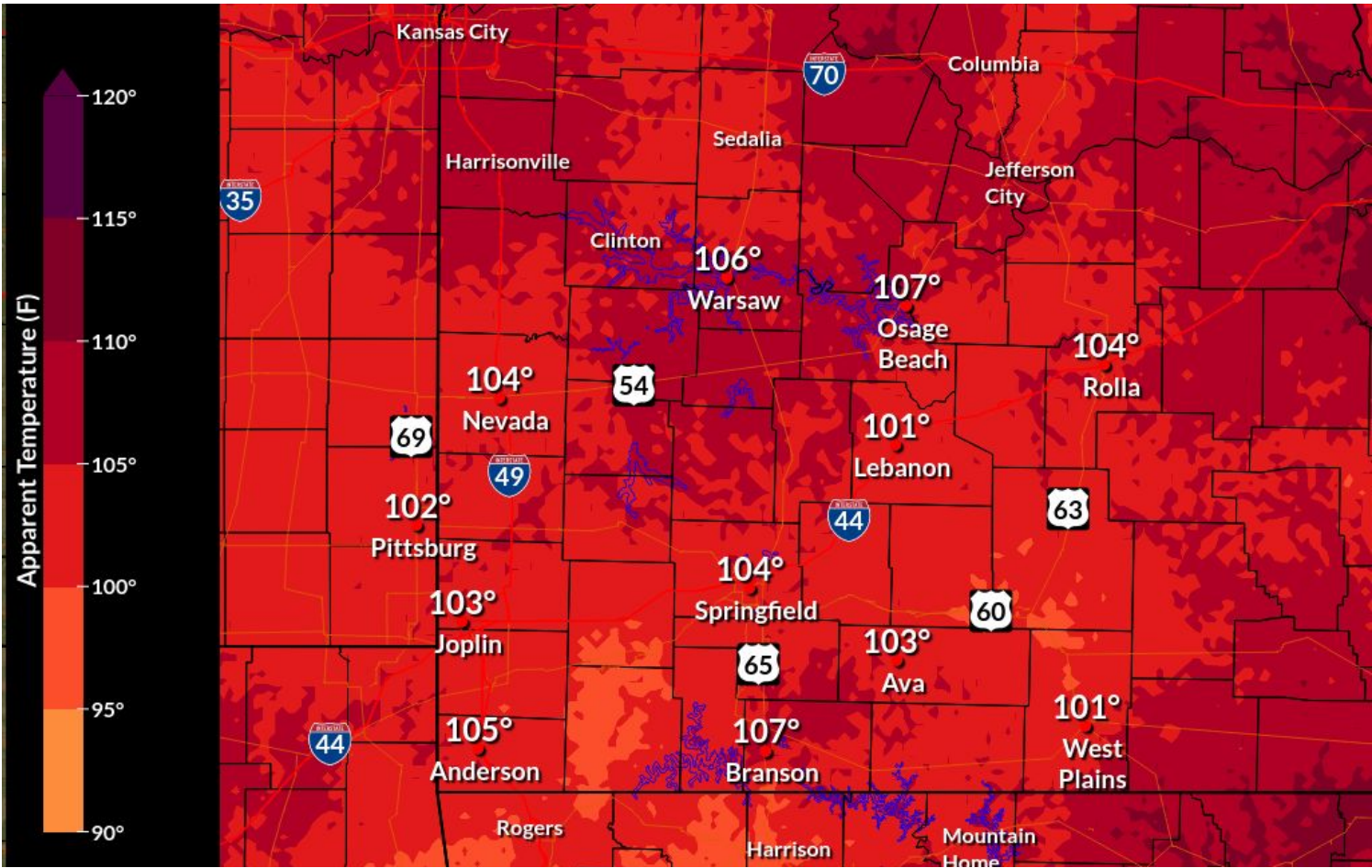
Maximum Heat Index

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Today and Tuesday



Maximum Heat Index Today



Maximum Heat Index Tuesday

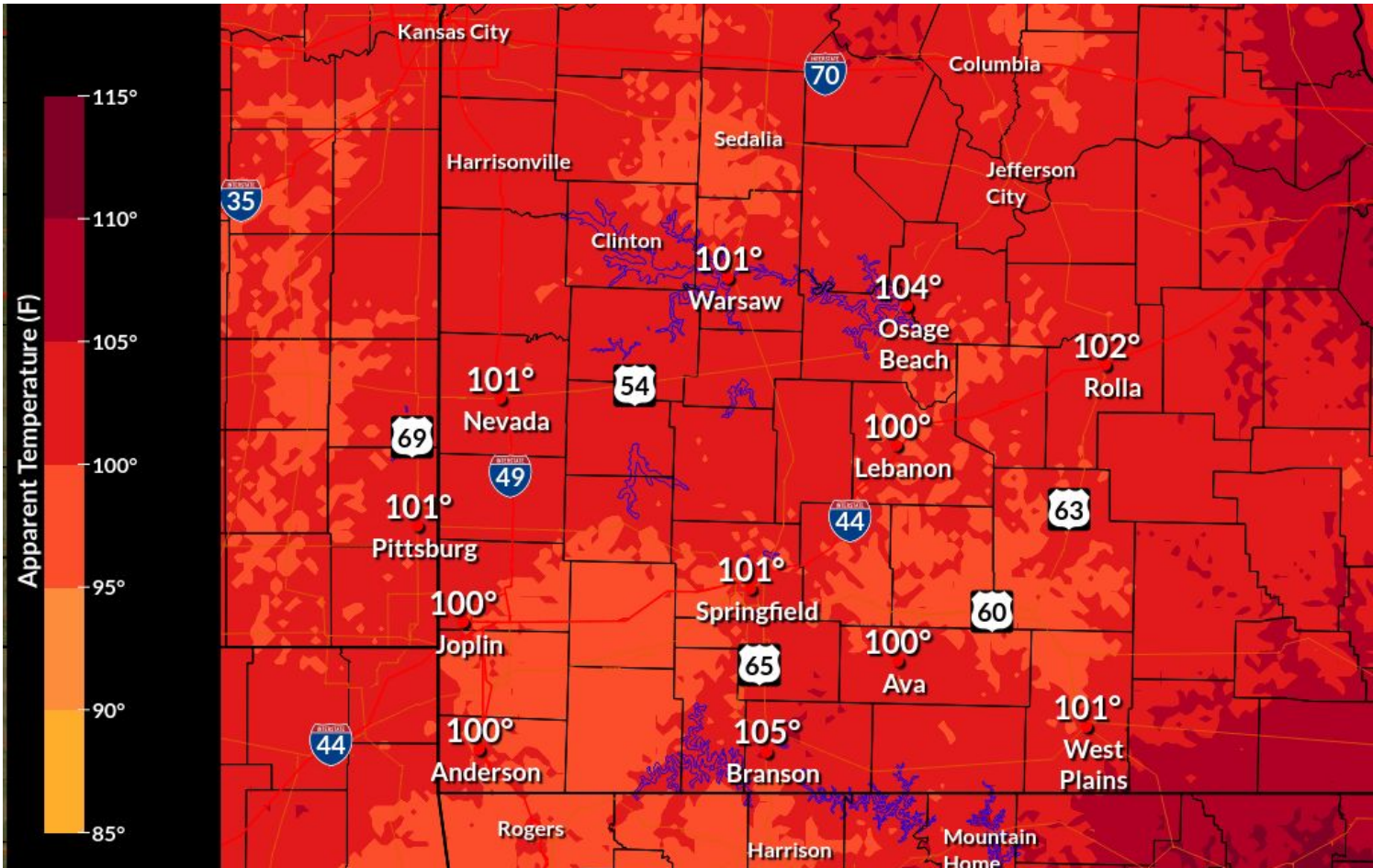




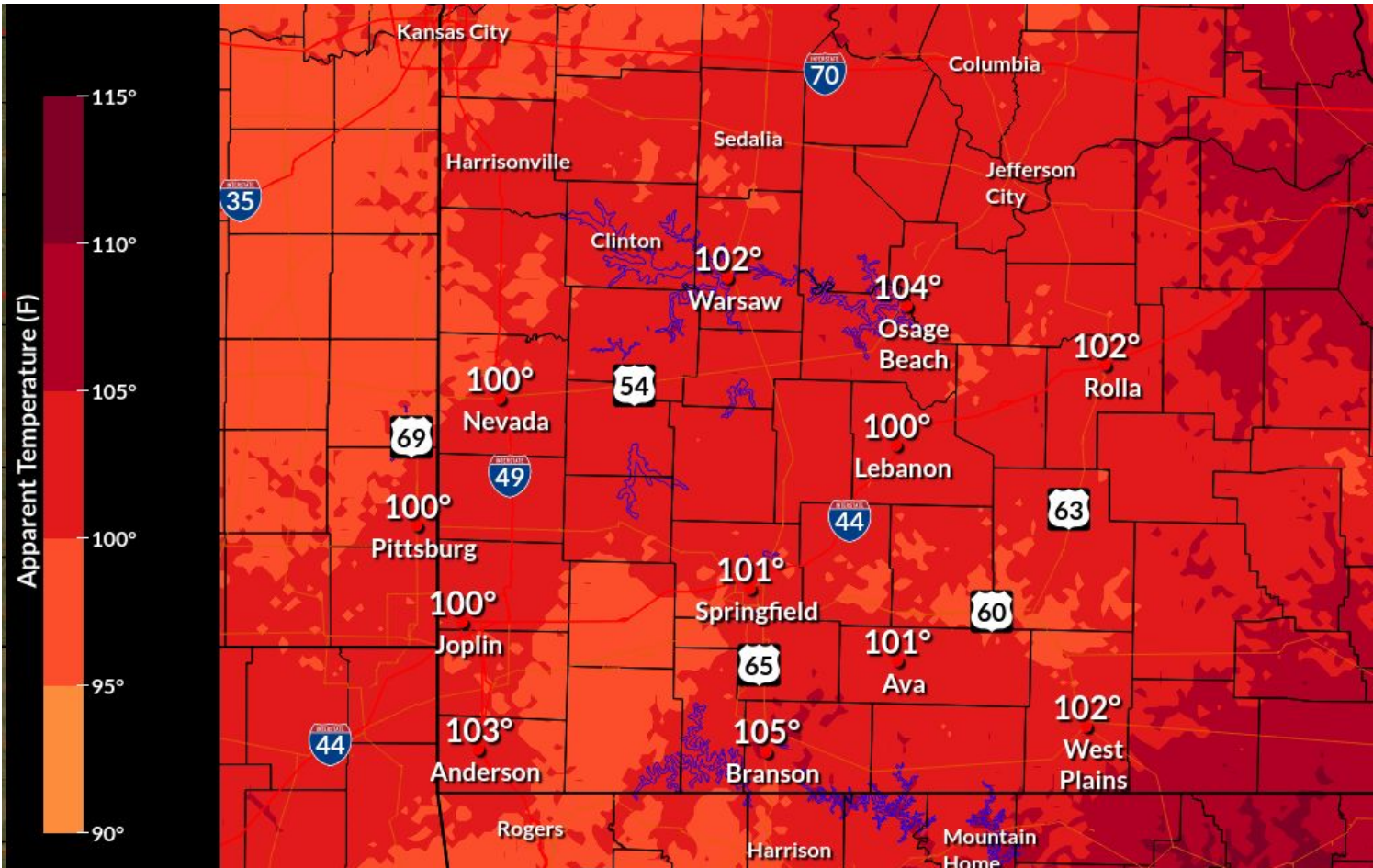
Maximum Heat Index

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Wednesday and Thursday



Maximum Heat Index Wednesday



Maximum Heat Index Thursday

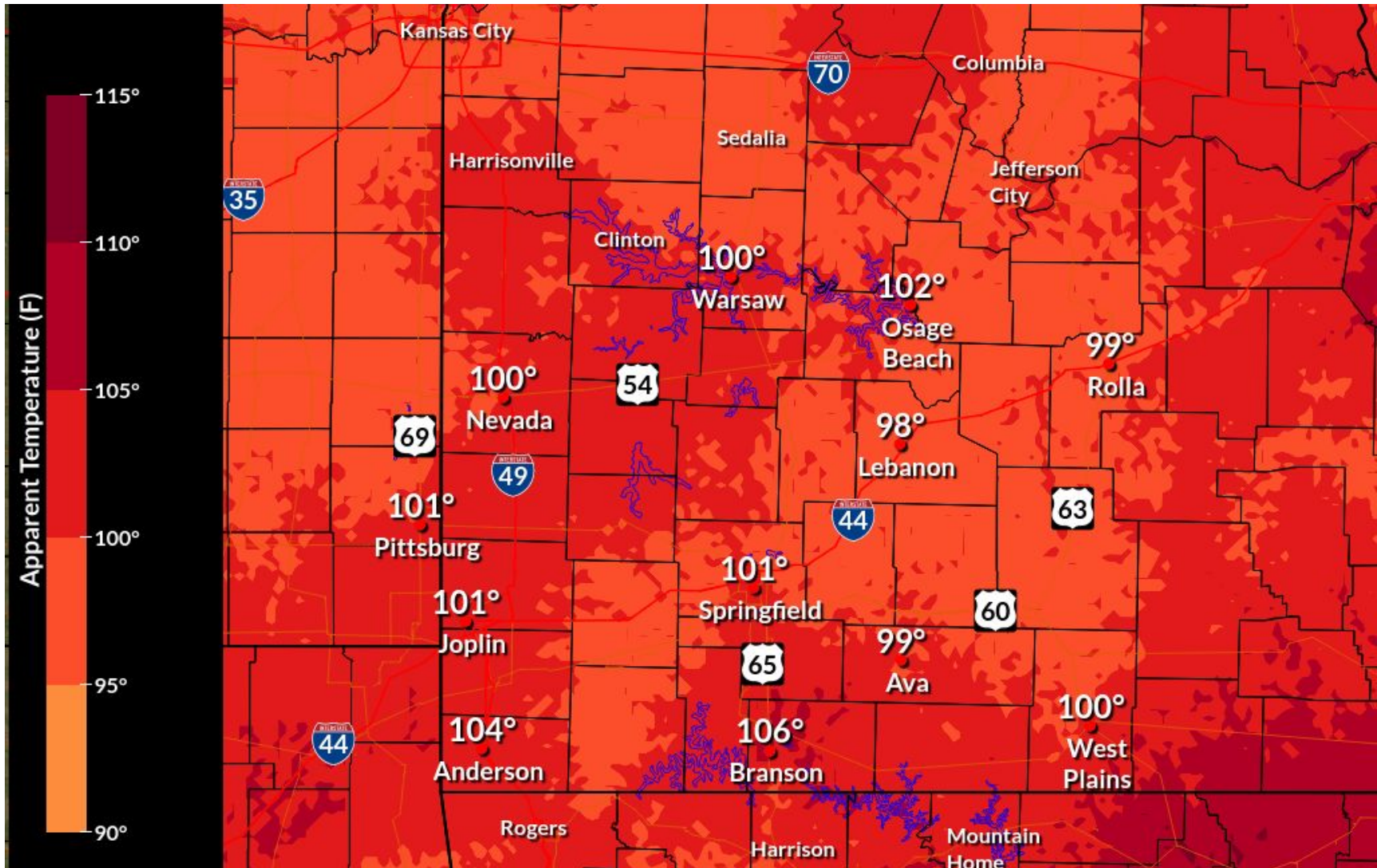




Maximum Heat Index

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Friday. ***CURRENTLY NO HEADLINES FOR FRIDAY. FOR SITUATIONAL AWARENESS***



Maximum Heat Index Friday





Understanding Heat Index

Heat Index		
Classification	Heat Index (°F)	Effect on the Body
Caution	80 to 89	Fatigue possible with prolonged exposure and/or physical activity.
Extreme Caution	90 to 102	Heat stroke, heat cramps or heat exhaustion possible with prolonged exposure and/or physical activity.
Danger	103 to 124	Heat cramps or heat exhaustion likely, and heat stroke possible with prolonged exposure and/or physical activity.
Extreme Danger	125 or higher	Heatstroke highly likely with continued exposure.
<i>Heat Index is the most commonly used and understood heat tool by the general public. The higher the values the hotter it's going to feel and the higher the threat for heat related illnesses. It's calculated from the temperature and relative humidity. Heat Index assumes you are in the shade. The Heat Index or the "Apparent Temperature" is an accurate measure of how hot it really feels when the Relative Humidity (RH) is added to the actual air temperature.</i>		

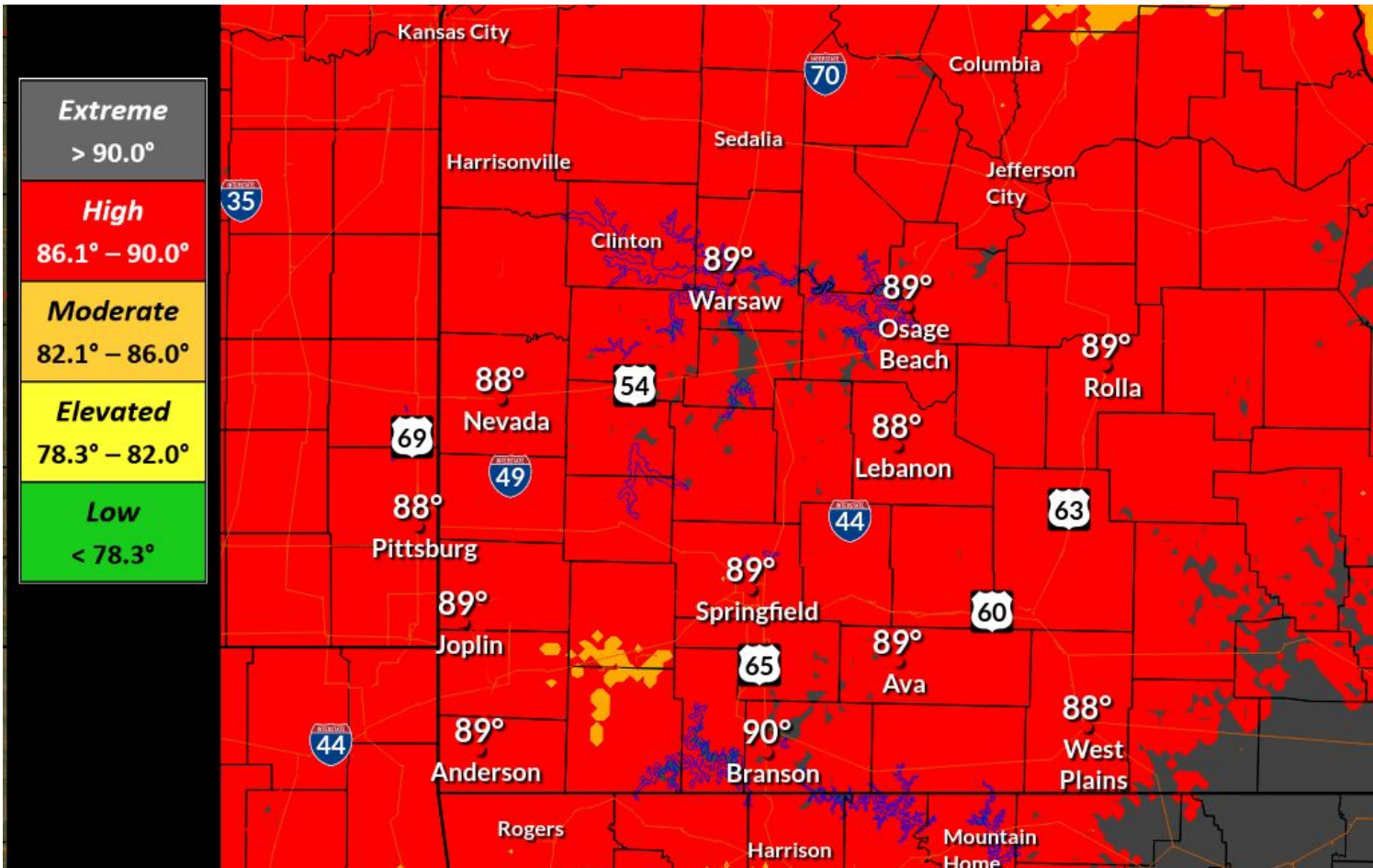




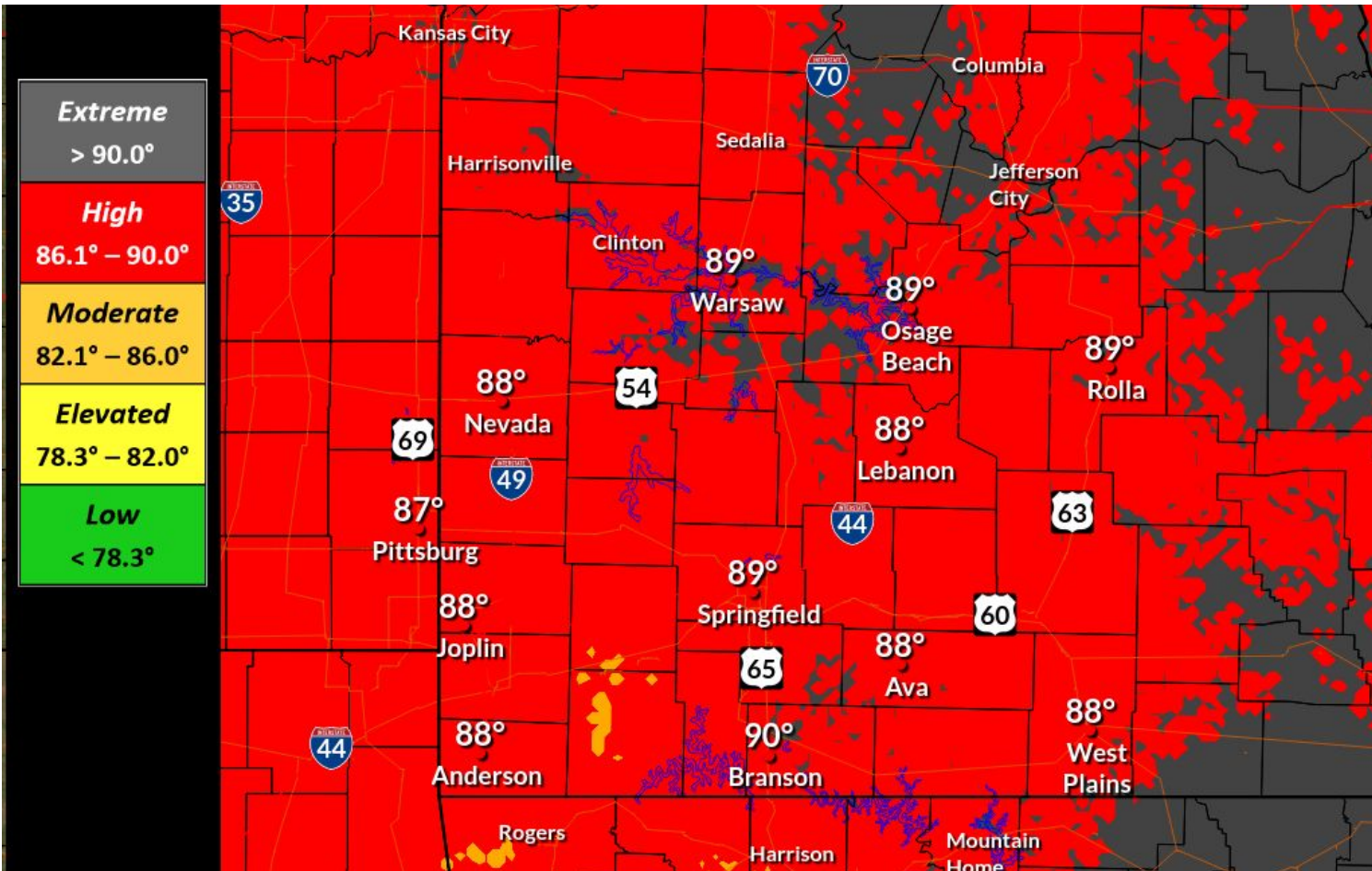
Wet Bulb Globe Temp Forecast

July 21, 2025
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Today and Tuesday



Wet Bulb Globe Temp Today



Wet Bulb Globe Temp Tuesday

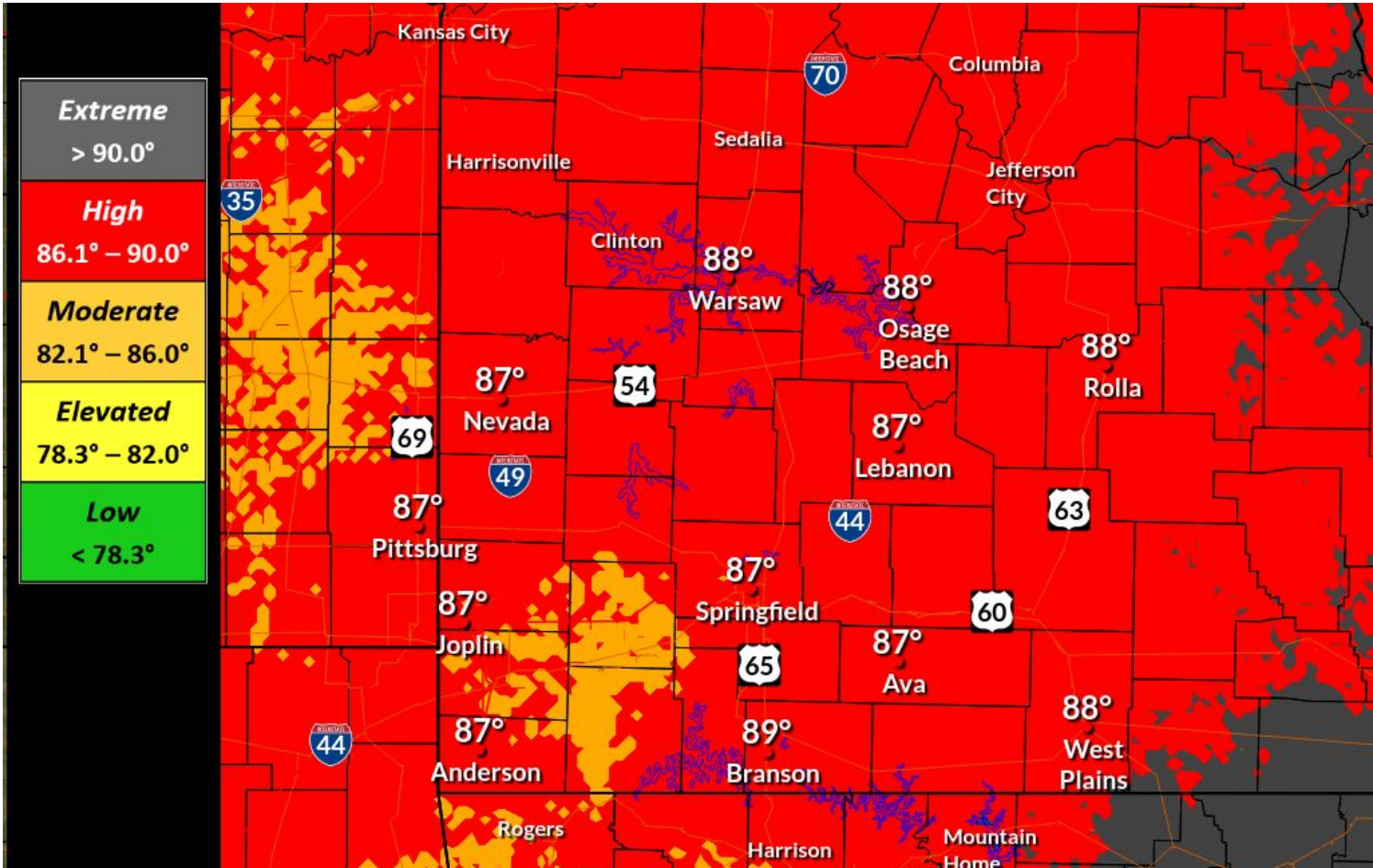




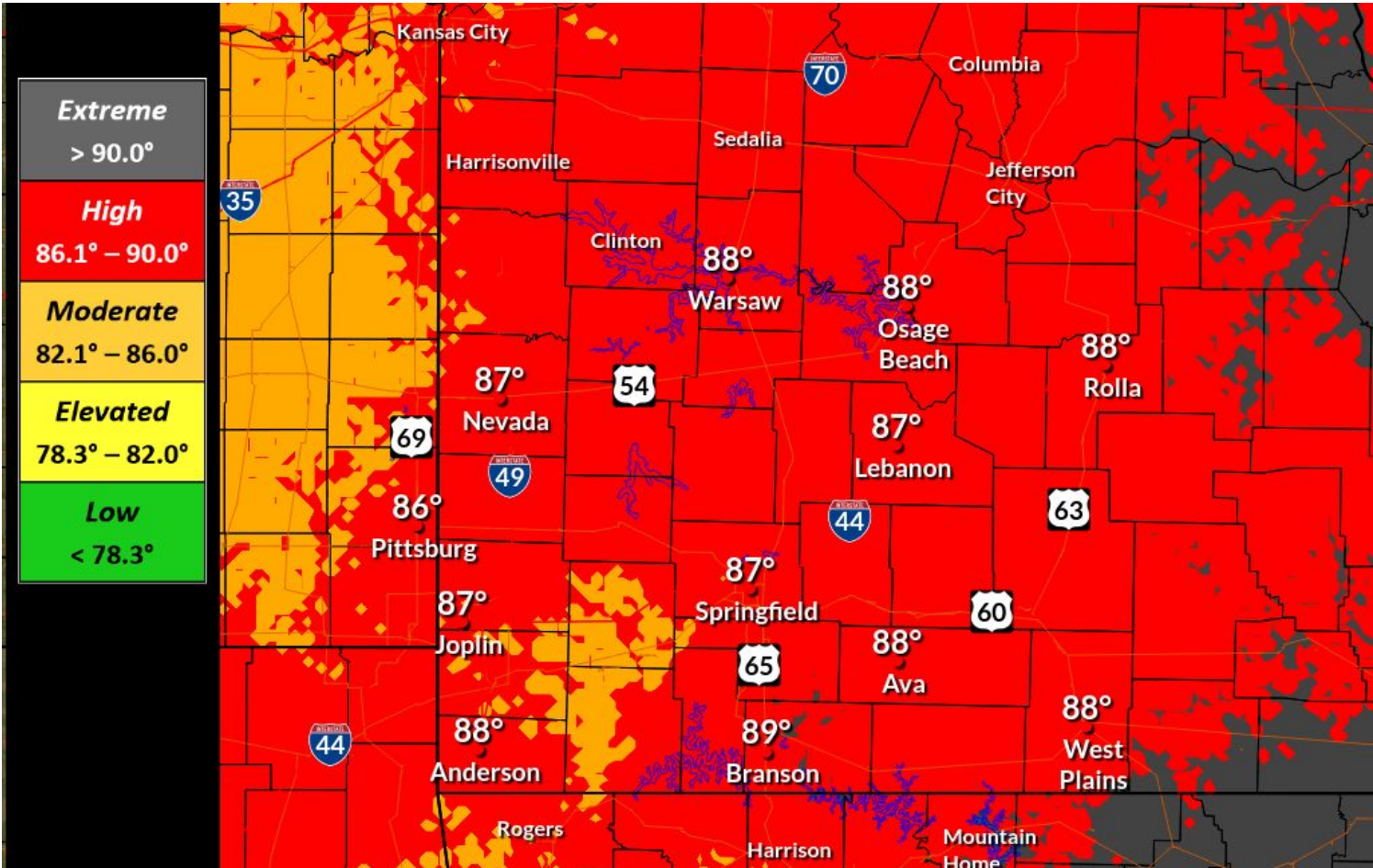
Wet Bulb Globe Temp Forecast

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Wednesday and Thursday



Wet Bulb Globe Temp Wednesday



Wet Bulb Globe Temp Thursday

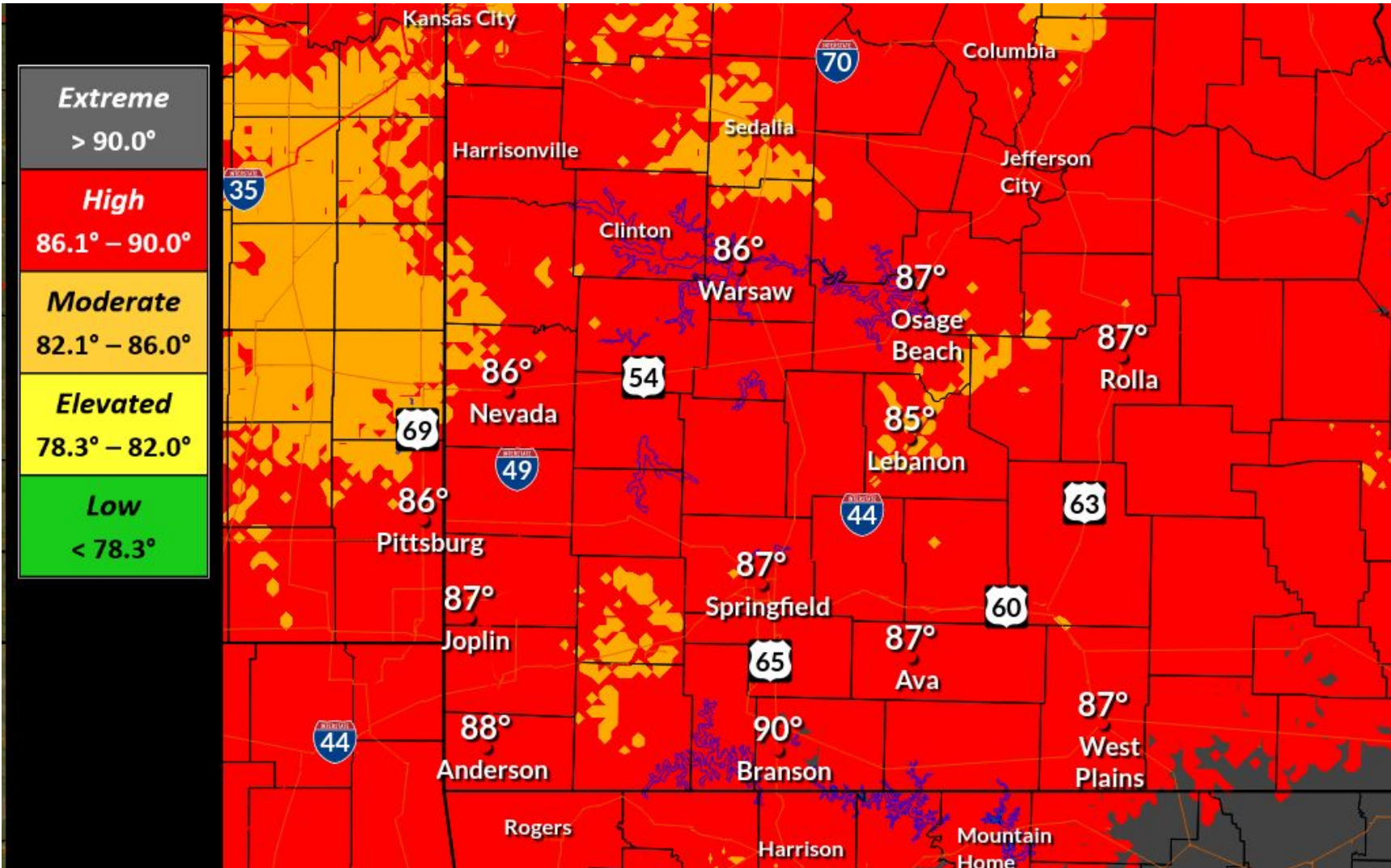




Wet Bulb Globe Temp Forecast

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Wet Bulb Globe Temp Friday





Understanding Wet Bulb Globe Temperatures

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Wet Bulb Globe Temperature (WBGT)			
Threat Level	WBGT (°F)	Effects	Call to Actions
Low	< 78.3	Normal activities.	Take at least 3-5 minutes of breaks each hour if working or exercising in direct sunlight.
Elevated	78.3 – 82.0	Working or exercising in direct sunlight will stress your body after 45 minutes.	Take at least 15 minutes of breaks each hour if working or exercising in direct sunlight.
Moderate	82.1 – 86.0	Working or exercising in direct sunlight will stress your body after 30 minutes.	Take at least 30 minutes of breaks each hour if working or exercising in direct sunlight.
High	86.1 – 90.0	Working or exercising in direct sunlight will stress your body after 20 minutes.	Take at least 40 minutes of breaks each hour if working or exercising in direct sunlight.
Extreme	> 90.0	Working or exercising in direct sunlight will stress your body after 15 minutes.	Take at least 45 minutes of breaks each hour if working or exercising in direct sunlight.
<i>Wet Bulb Globe Temperature (WBGT) is a measure of the heat stress in direct sunlight, which takes into account: temperature, humidity, wind speed, sun angle and cloud cover (solar radiation). This differs from the heat index, which takes into consideration temperature and humidity and is calculated for shady areas. a particularly effective indicator of heat stress for active populations such as outdoor workers and athletes. Always check with local officials for appropriate actions and activity levels. Experienced heat stress will depend upon duration and intensity of activity and personal health and vulnerability.</i>			

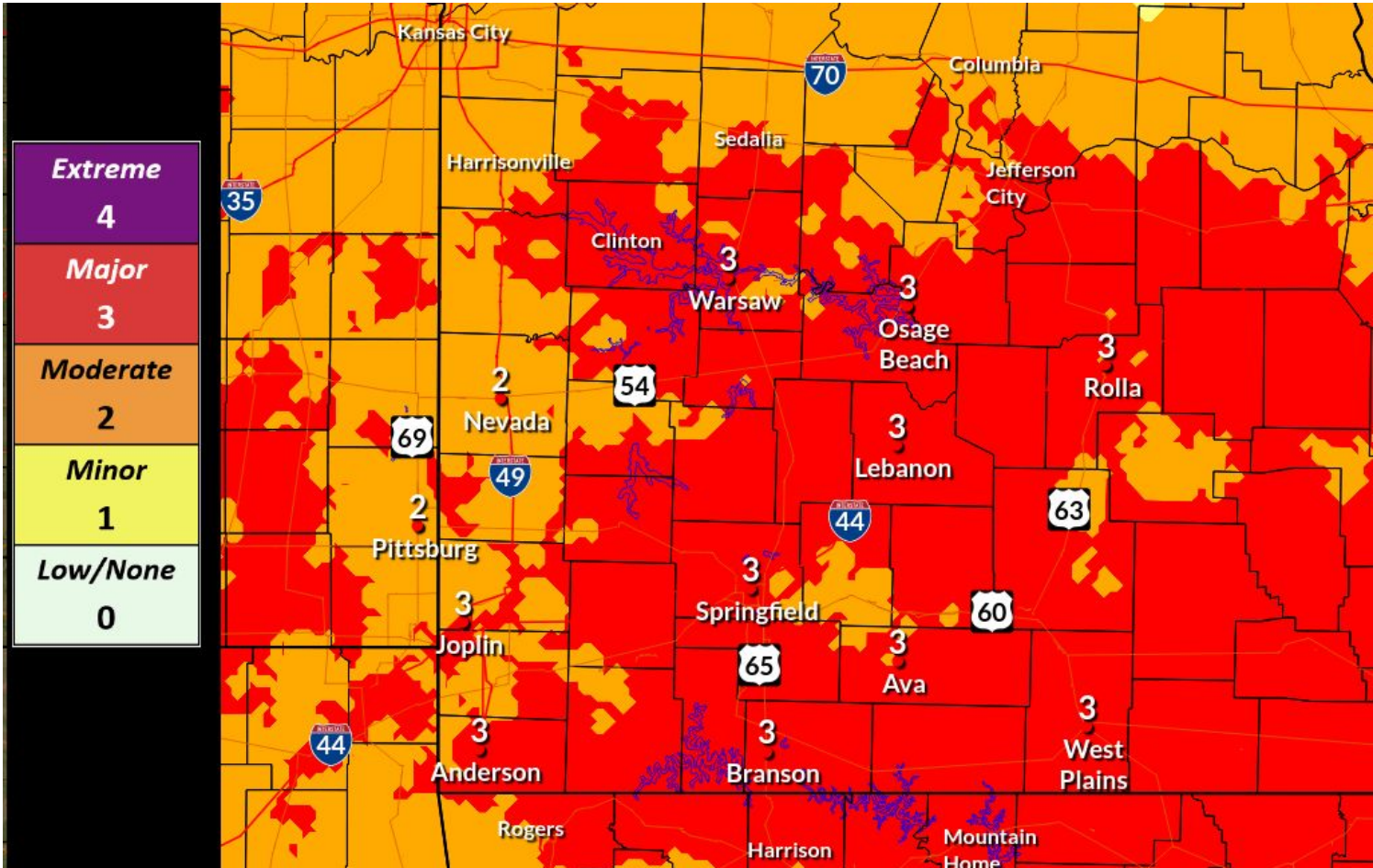




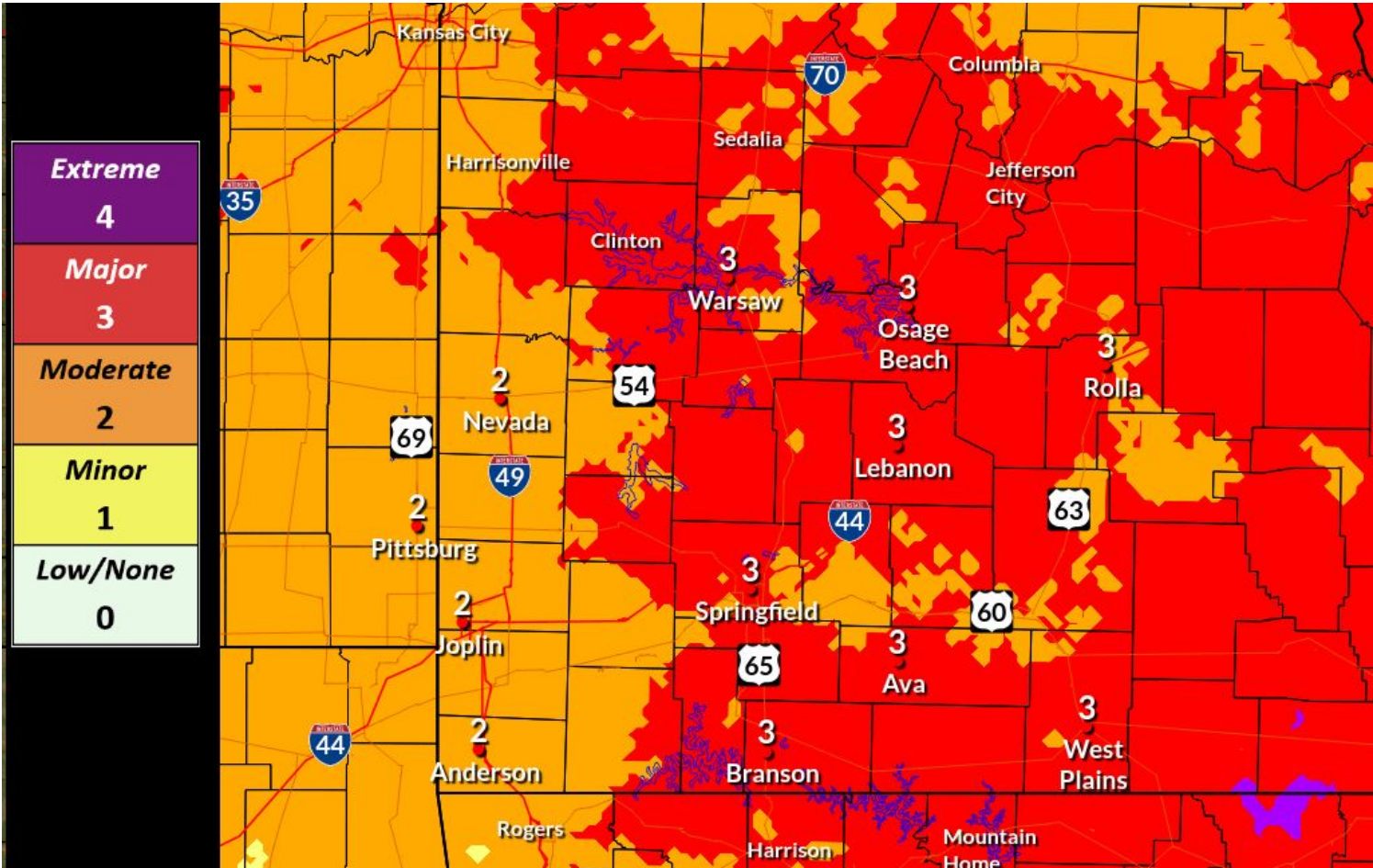
HeatRisk Forecast

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Today and Tuesday



HeatRisk Today



HeatRisk Tuesday

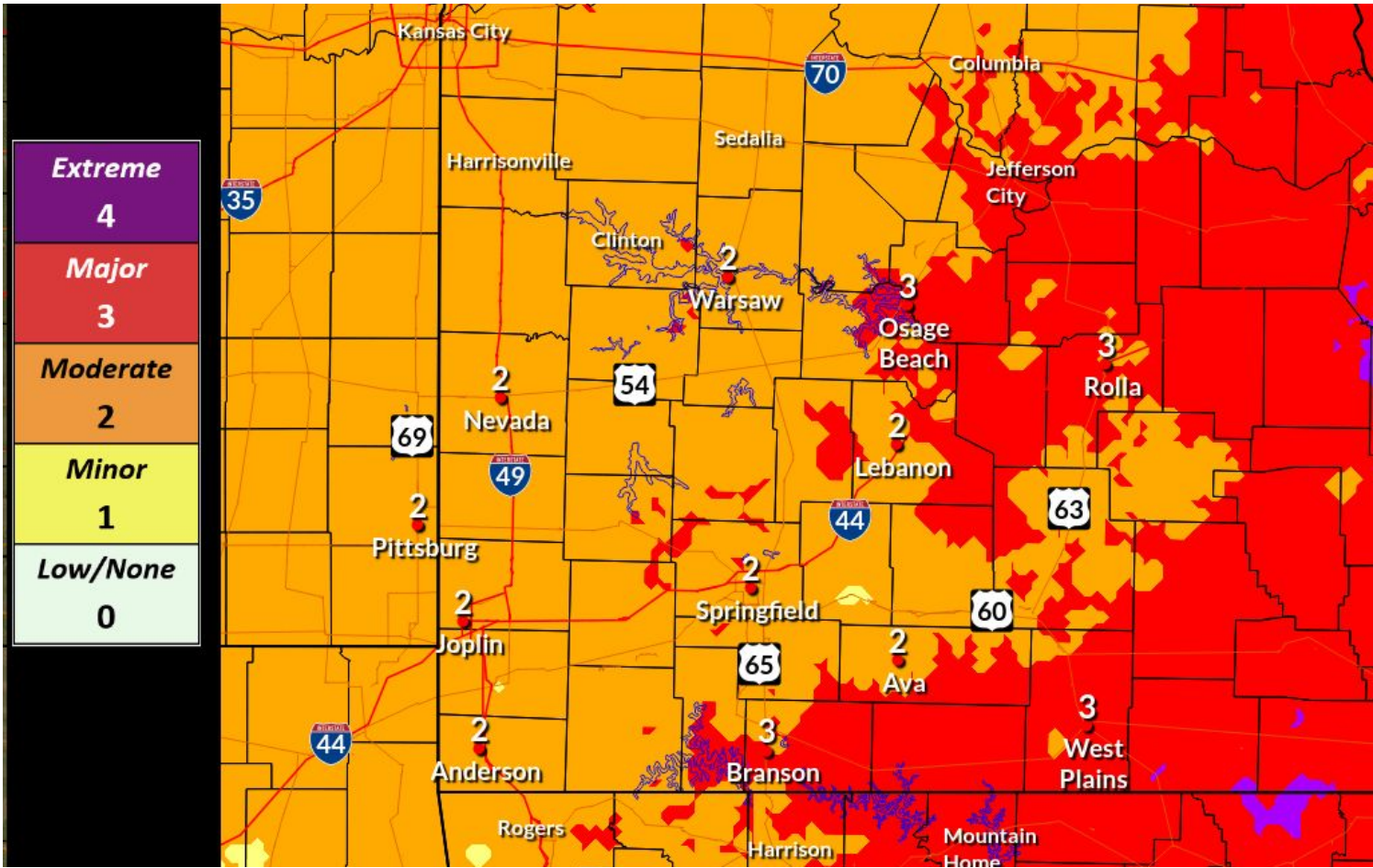




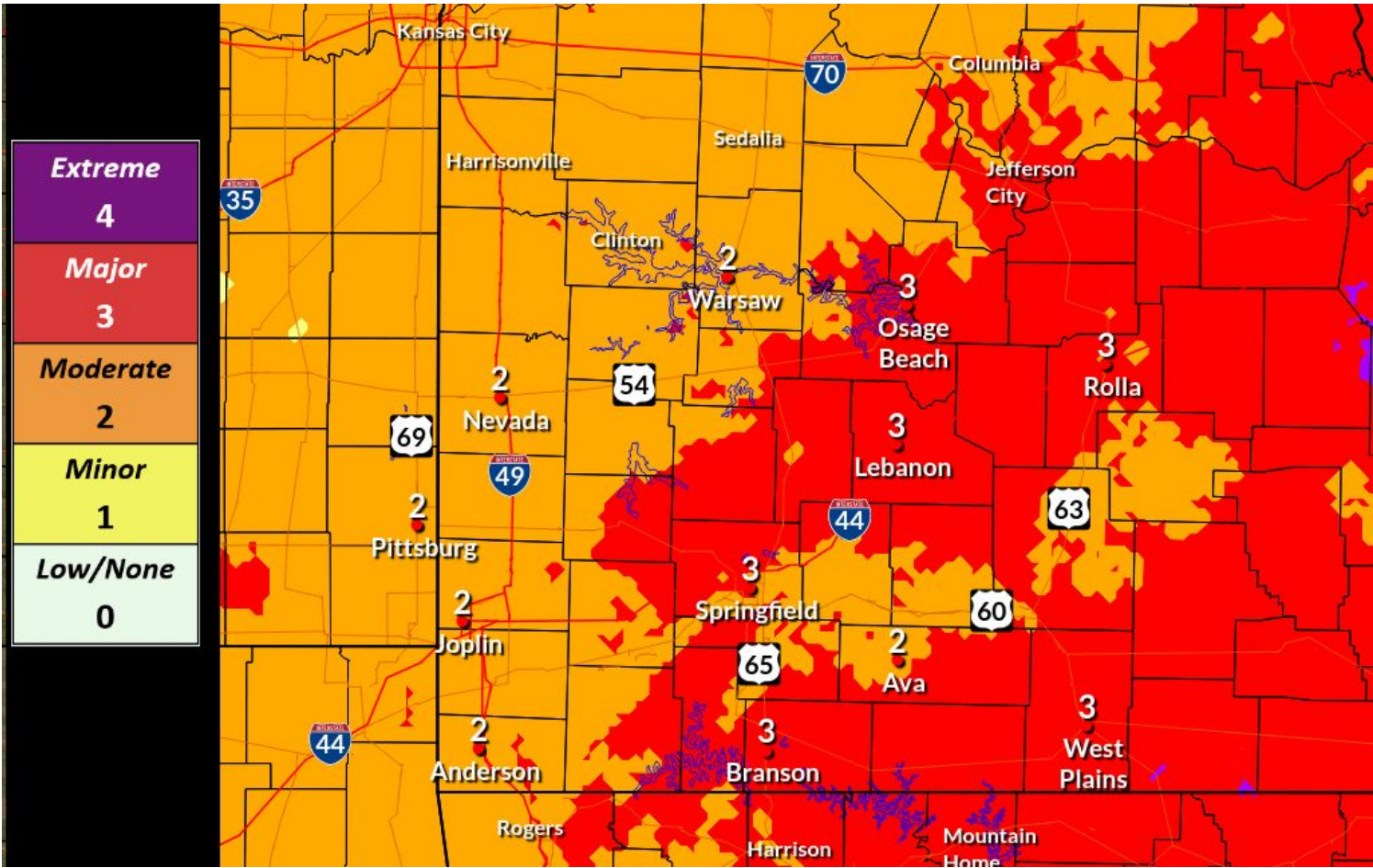
HeatRisk Forecast

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Wednesday and Thursday



HeatRisk Wednesday



HeatRisk Thursday





Friday. *CURRENTLY NO HEADLINES FOR FRIDAY. FOR SITUATIONAL AWARENESS*****





Understanding NWS HeatRisk

NWS HeatRisk		
Category		Risk of Heat-Related Impacts
0	Low/None	Little to no risk from expected heat.
1	Minor	Primarily affects individuals extremely sensitive to heat, especially when outdoors without effective cooling and/or adequate hydration.
2	Moderate	Affects most individuals sensitive to heat, especially when outdoors without effective cooling and/or adequate hydration. Impacts possible in some health systems and in heat-sensitive industries.
3	Major	Affects anyone without effective cooling and/or adequate hydration. Impacts likely in some health systems, heat-sensitive industries, and infrastructure.
4	Extreme	Rare and/or long duration extreme heat with little to no overnight relief. Affects anyone without effective cooling and/or adequate hydration. Impacts likely in most health systems, heat-sensitive industries, and infrastructure.
<i>The NWS HeatRisk is an experimental color-numeric-based index that provides a forecast risk of heat-related impacts to occur over a 24-hour period. HeatRisk takes into consideration: How unusual the heat is for the time of the year. The duration of the heat including both daytime and nighttime temperatures. If those temperatures pose an elevated risk of heat-related impacts based on data from the CDC.</i>		





CPC Days 8-14 Risk of Hazardous Temps

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- There is potential for Heat Headlines (Advisory/Warning) to persist after Thursday and into next weekend.
- The Climate Prediction Center is highlighting a Moderate to High risk for extreme heat towards the end of July into the beginning of August.
- Details and context on what this means for southwest Missouri can be found on the next slide.

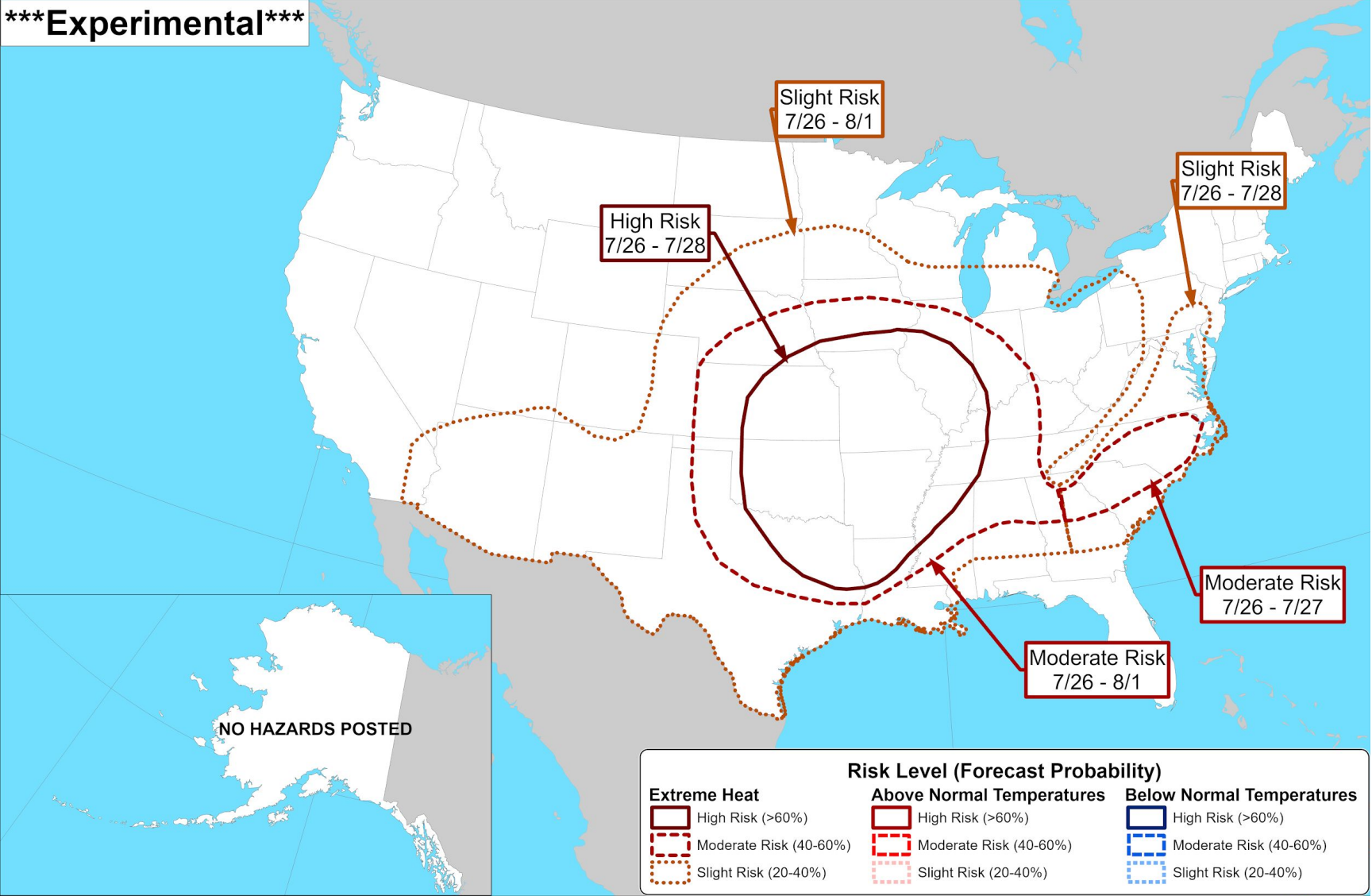


Risk of Hazardous Temperatures

Valid: July 26 - August 1, 2025



Experimental



Climate Prediction Center

Released: July 18, 2025 3:00 PM EDT

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

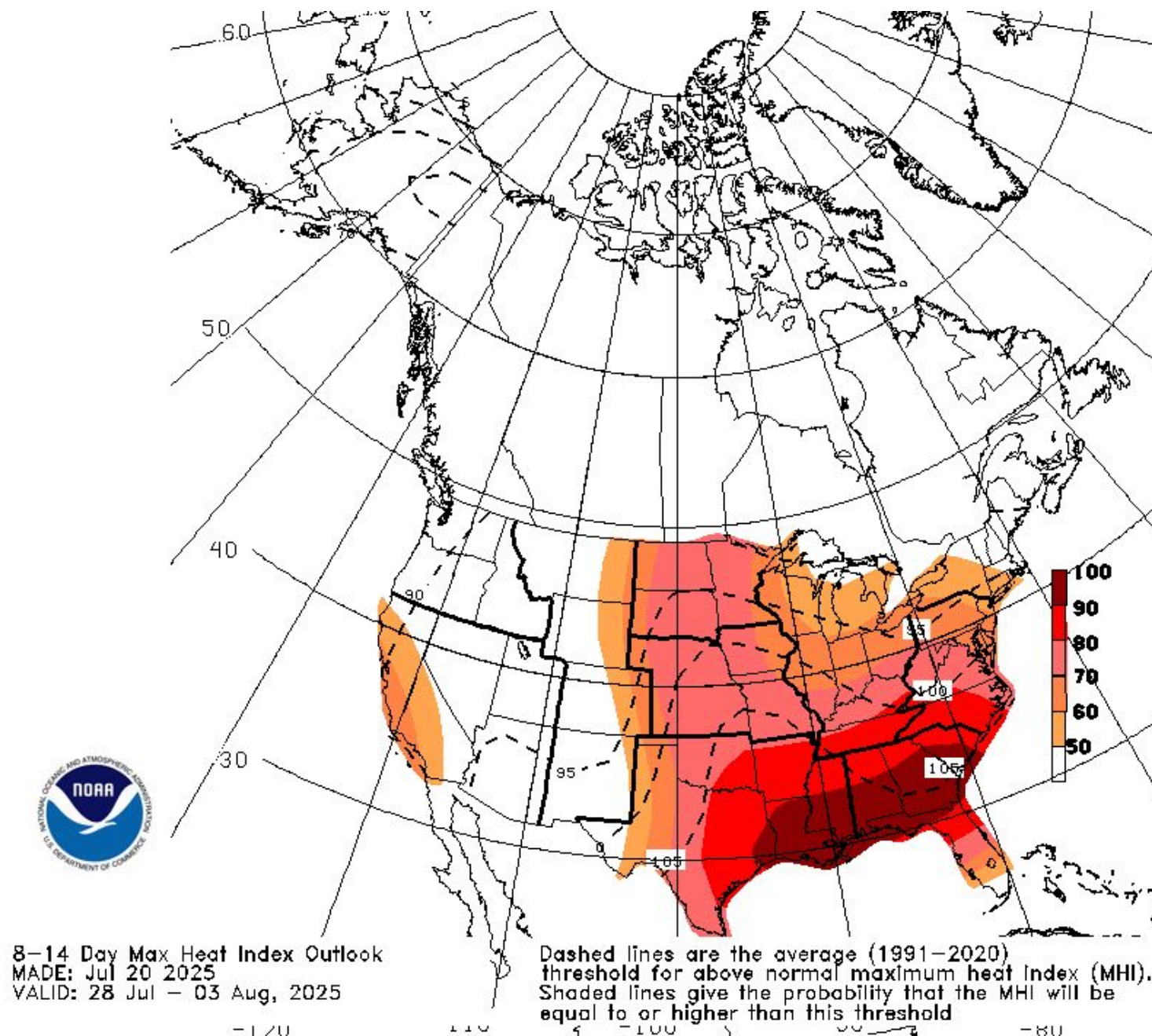
National Weather Service
Springfield, MO



CPC Days 6-14 Day Heat Index Outlook

July 21, 2025
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- The Climate Prediction Center is depicting an 80-90% chance of Heat Index values exceeding 100 F, and a 35-70% chance of values exceeding 105 F, between July 26th and August 3rd.
- This is the chance of Heat Headlines (Advisory/Warning) being met for **at least one** of the days between July 26th and August 3rd, though the pattern signals potentially multiple days to reach these criteria.
- The chart on the right shows the above normal Heat Index (black dotted line), which is 105 F for southwest Missouri. The shading is the chance of exceeding that value over the specified time period, which in this case is July 26th through August 3rd.
- Detailed probabilities for Springfield and Joplin can be found on the next slide.





CPC Days 6-14 Day Heat Index Probabilities

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Probability of Exceedance of Heat Index Values for July 26th through August 3rd

	% Chance >100 F	% Chance >105 F	% Chance >110 F	% Chance >115 F
Springfield	83.76	46.54	11.35	1.63
Joplin	90.73	71.29	30.79	7.43

- These probabilities can be attributed to the chance of Heat Headlines (Advisory/Warning) being met for **at least one** of the days between July 26th and August 3rd, though the pattern signals potentially multiple days to reach these criteria.
- While the exact forecast and probabilities will change between now and then, this can give you the confidence level in the degree of heat expected in the extended range (6-14 days out).



Additional Resources


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For Additional Information

- [NWS Springfield Webpage](#)
- [IDSS Point Forecasts](#)
- [Graphical Hazardous Weather Outlook](#)
- [CPC Day 8 to 14 Risk of Hazardous Temperatures](#)
- [Week 2 Global Probabilistic Extreme Forecast Tool](#)
- [Wet Bulb Globe and Heat Index Forecasts](#)
- [Experimental HeatRisk Forecast](#)
- [Wet Bulb Globe Temperature and Heat Index Information](#)
- [Missouri Cooling Centers Map](#)
- [NWS Heat Safety](#)
- [NWS Heat Tools Reference Sheet](#)

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Heat Exhaustion	Heat Stroke
ACT FAST <ul style="list-style-type: none">• Move to a cooler area• Loosen clothing• Sip cool water• Seek medical help if symptoms don't improve	ACT FAST CALL 911 <ul style="list-style-type: none">• Move person to a cooler area• Loosen clothing and remove extra layers• Cool with water or ice
Symptoms: <ul style="list-style-type: none">DizzinessThirstHeavy SweatingNauseaWeakness	Symptoms: <ul style="list-style-type: none">ConfusionDizzinessBecomes Unconscious
	
<i>Heat exhaustion can lead to heat stroke.</i>	
<i>Heat stroke can cause death or permanent disability if emergency treatment is not given.</i>	




Stay Cool, Stay Hydrated, Stay Informed!



Heat Impacts: Vulnerable Populations

PREGNANT	NEWBORNS	CHILDREN	ELDERLY	CHRONIC ILLNESS
				
Everyone is at risk from the dangers of extreme heat, but these groups are more vulnerable than most. Age and certain conditions make the body less able to regulate temperature.				
NEVER leave anyone alone in a closed car		Use air conditioners and stay in the shade		Drink plenty of water, even if not thirsty
		Wear loose-fitting, light-colored clothing		

weather.gov 

National Weather Service
Springfield, MO



National Oceanic and
Atmospheric Administration
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