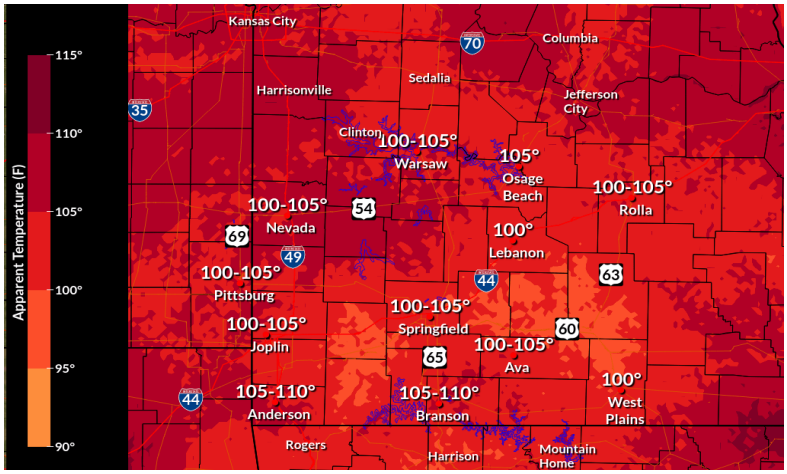
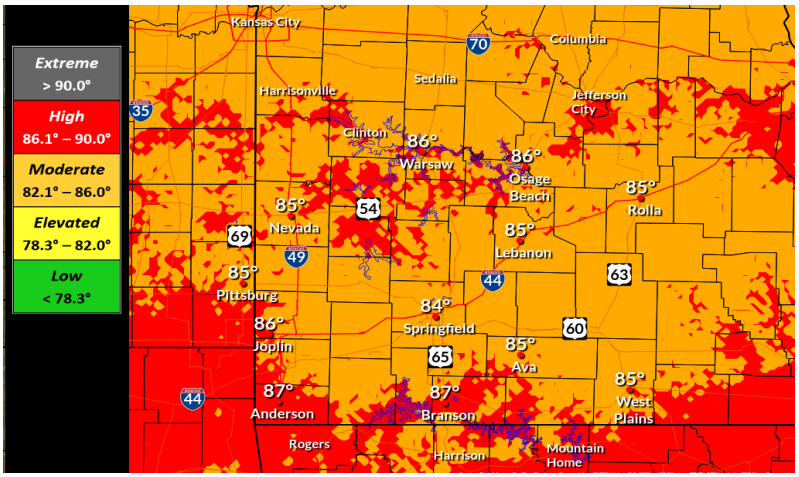
NWS Heat Tools

Heat Index

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.



Heat Index Forecast



Wet Bulb Globe Temperature Forecast

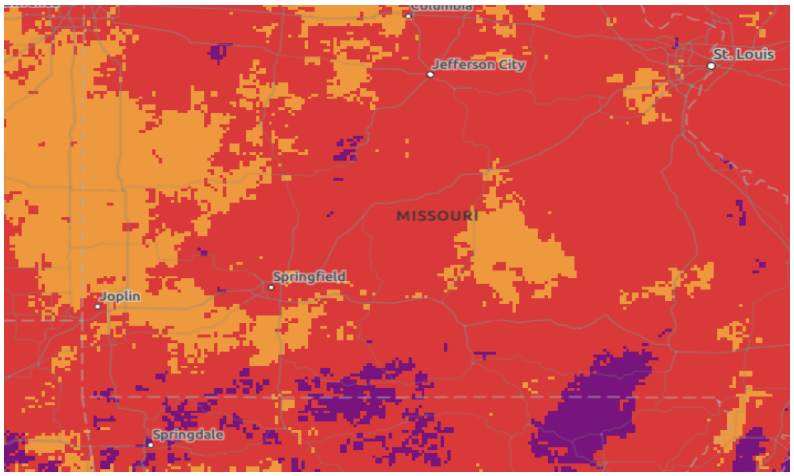
Wet Bulb Globe Temperature

Wet Bulb Globe Temperature (WGBT) 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. This is a particularly effective indicator of heat stress for active populations such as outdoor workers and athletes.

NWS HeatRisk

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 for a specific location, along with identifying groups potentially most at risk at that level. 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.



NWS HeatRisk Forecast

Check out this reference document for additional information on NWS Heat Tools

National Weather Service Springfield, Missouri

Building a Weather-Ready Nation

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.

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.

HeatRisk

Risk of Heat Effects		Risk of Heat-Related Impacts
0	Little to 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.