

Southeast Regional Climate Center Value Study



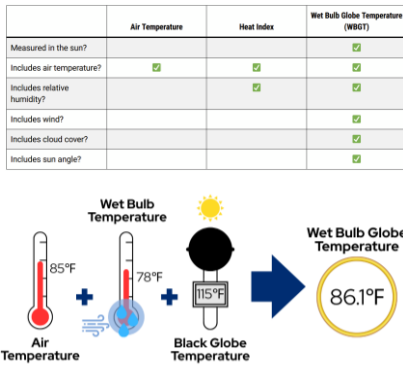
From NOAA Data to Heat Safety Decisions

The SERCC Wet Bulb Globe Temperature Prediction Tool turns weather forecasts into actionable guidance for managing heat risk



1 Heat risk is more than temperature

WBGT combines temperature, humidity, solar radiation, and wind to characterize environmental heat stress. It is primarily used where people engage in strenuous outdoor activity, including athletics, military training, and outdoor work.

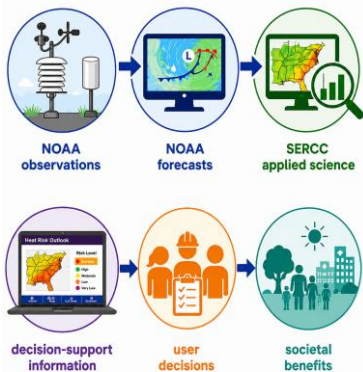


2 From conditions to actions

WBGT flag levels connect environmental conditions with recommended changes in activity, rest, hydration, equipment, and exposure.

WBGT Activity Guidelines and Rest/Break Guidelines for Athletes		
Heat Category	WBGT Index (F)	Activity Guidelines
No Flag	Under 80	Unlimited activity with primary cautions for new or unconditioned athletes or extreme exertion; schedule mandatory rest/water breaks. (5 min rest/water break every 30 min)
Low (Green Flag)	80-84.9	Normal practice for athletes; closely monitor new or unconditioned athletes and all athletes during extreme exertion. Schedule mandatory rest/water breaks. (5 min water/rest break every 25 min)
Moderate (Yellow Flag)	85-87.9	New or unconditioned athletes should have reduced intensity practice and modifications in clothing. Well-conditioned athletes should have more frequent rest breaks and hydration as well as cautious monitoring for symptoms of heat illness. Schedule frequent mandatory rest/water breaks. (5 min rest/water break every 20 min) Have cold or ice immersion pool on site for practice.
High (Red Flag)	88-89.9	All athletes must be under constant observation and supervision. Remove pads and equipment. Schedule frequent mandatory rest/water breaks. (5 min rest/water break every 15 min) Have cold or ice immersion pool on site for practice.
Extreme (Black Flag)	Over 90	SUSPEND PRACTICE

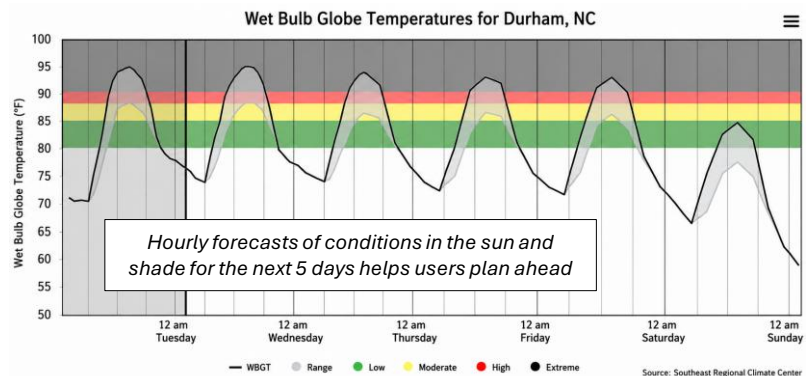
3 The process: Turning NOAA data into time to act



Real-time weather observations and historical data, NOAA model guidance and forecasts, WBGT calculations and field work

High-resolution forecasts, maps, charts, flag levels, adjust plans and activities, reduce risk, increase preparedness, more resilient communities

A forecast creates options:



4 Built through science, engagement, and user needs

2019
Operational WBGT Prediction Tool Launches



NCHSAA Workshop

Field Work

2022
Coverage Expands to Eastern Two-Thirds of Contiguous U.S.

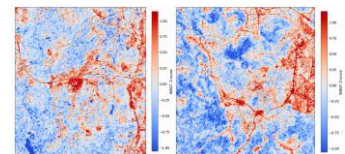


2024
Coverage Expands to Puerto Rico and the U.S. Virgin Islands



U.S. Caribbean Heat Summit Demonstration

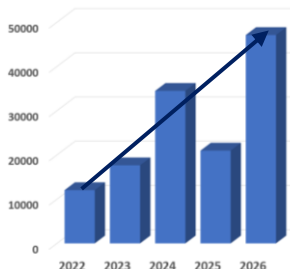
2026 and Beyond
Toward Neighborhood-Scale Heat Information



10-Meter WBGT Forecasts in Urban Landscapes

Each expansion began with a user need or question: where the tool should work, which guidelines users needed, how sun and shade and landscape affect exposure, how forecasts can better represent the places where people actually experience heat

5 From forecasts to actions



Strong and Growing Reach!

The number of views each summer (June-August) has increased nearly **300%** since the tool expanded to the eastern two-thirds of the U.S. in 2022 (the drop in 2025 was due mainly to below-average summer temperatures)

Texas impact



63,511

total views in Texas from April 2022 to August 24, 2026

NWS Austin/San Antonio has shared the tool with over 2,000 partners following implementation of the Texas UIL heat-safety requirements in 2026



What users are saying

"Having a 3-4 day forecast allows us to make plans for the week for all of our outdoor athletics"
- Michael Catterson, Head Athletic Trainer, Jenks HS, Oklahoma

"Having [WBGT] information ahead of time is much more effective than reacting after the heat has already intensified"
- Kenneth Ray, Chief Operations Branch, U.S. Army Fort Lee

"The SERCC WBGT Tool...provides this information in an easy-to-understand format...Tools like this complement our heat messaging and the alerts we issue at the NWS"
- Jason Runyen, Warning Coordination Meteorologist, NWS Austin/San Antonio

The Value of NOAA Data Lies In The Decisions They Make Possible

NOAA data → Actionable Guidance → Time to Plan → Safer and Better-Prepared Communities