

Weather reference & assessment

A guide for NICA staff & coaches for use at any NICA activity or event



WEATHER ASSESSMENT PROCESS

Heat, lightning, wildfires, poor air quality, cold and other weather events impact safety. Follow this process for assessing and responding to weather events.

ANTICIPATE the elevated participant risks associated with each weather type.	PLAN to continue to assess the forecast and adjust for the weather wherever you ride. Review your team emergency action plan and plan your activity based on the forecast.	ADJUST the plan for participant safety based on potential impacts.
<i>EXAMPLE: Anticipate increased flow of nearby rivers/creeks, flooding, and potential mechanicals due to mud-clogged drivetrains during a rain event.</i>	<i>EXAMPLE: A heat index of 103°F/39°C leads to decreasing your practice/event time and intensity to 1 hour or less. Emphasize proper hydration, monitoring, etc.</i>	<i>EXAMPLE: A severe thunderstorm watch was issued for your area, and lightning is detected within 10 miles/16 km while riders are on the trail. Evacuate and seek shelter.</i>

Forecasting

“When” you decide to act on a forecast is as important as using an accurate forecasting tool. Below is a chart of when a professional meteorologist can generally make a confident forecast. Notice the range varies based on weather type.

Weather Type	When to make a confident forecast?
Lightning strike/forecast	<1 minute / up to 6 hours
Tornado Warning/Watch	<20 minutes / 6 hours
Flash Flood Warning/Watch	<1 hour / 24 hours
Heavy rain	Up to 6 hours
Rain Accumulation Threshold (RAT)	Up to 2 days
High winds	Up to 2 days
Air quality	Today and tomorrow
Heat	Up to 5 days
Tropical Storm	Up to 5 days
Cold weather	Up to 5 days

The time period shared above is a US average and will differ depending on local geography.

Use this table to define weather conditions and adjust NICA activities. We recommend that you print and carry a copy.

Weather Reference & Resources

The **NICA Weather reference table** on the following page should be used by head coaches and NICA staff to define weather conditions and adjust activities. We recommend that you print and carry a copy at every NICA activity.

NICA WEATHER FACT SHEETS
Thunderstorms
Heat
Tropical Storms/Hurricanes
High Winds
Cold Weather
Air Quality
Rainfall Accumulation - no thunder
Heavy Rain - no thunder

Some in-depth weather guides above are intended for use at NICA events, however, they may also be useful in informing coach decision-making at a team level.

SEE ALSO: [Incident Response Documentation Guide](#) | [Glossary of Weather-related terms](#)

	GREEN	YELLOW	ORANGE	RED
THUNDERSTORM	No thunderstorms are expected	- High confidence that a storm will affect the venue during a specific time - Severe thunderstorm watch issued by the NWS Communicate with your team to adjust as needed if lighting is detected	- Lighting is detected within 10 miles/16 km of the venue - Severe thunderstorm warning issued by NWS - Tornado watch is issued by NWS Trails are evacuated, attendees seek shelter	- Tornado warning issued by NWS - Prolonged thunderstorms expected Activity canceled at the discretion of leadership
HEAT	Heat index remains below 95	- Heat index of 95-100°F/35-38°C Maximum activity time of 2 hours	- Heat index of 100-105°F/38-40.5°C Maximum activity time of 1 hour	- Heat index greater than 105°F/40.5°C Activity is canceled or delayed until heat index drops below 105°F/40.5°C
TROPICAL STORMS	No tropical storms are expected to impact the venue or surrounding area	- Part of the venue is in the “forecast cone” in the week leading up to the event Daily weather briefings are sent out to the community	Not applicable	- Part of the venue is in the “forecast cone” 2 days prior to the event Activity is canceled at the discretion of leadership
HIGH WINDS	No wind hazards	- Wind advisory issued by the national weather service - Winds 25-35 mph/40-56 kmph expected Course marshals monitor venue conditions	- High winds are temporary (1-2 hrs) - Activity paused and restarted based the time winds diminish Trails are evacuated	- High wind warning issued by national weather service - Winds greater than 35 mph/56 kmph Activity is canceled
COLD WEATHER	No cold weather hazard	Thresholds determined based on community's acclimation and preparedness	Thresholds determined based on community's acclimation and preparedness	Activity is canceled at the discretion of leadership
AIR QUALITY	Air Quality Index (AQI) is Good 0-50	- Air Quality Index (AQI) is moderate 51-100 Check in with individuals who have higher air quality sensitivity	- Air Quality Index (AQI) is unhealthy for sensitive groups 100-151 Competitive activities canceled. Non-competitive activity duration and intensity reduced.	- Air Quality Index (AQI) is unhealthy 151-200 Activity is canceled
RAIN ACCUMULATION	Predetermined rainfall accumulation threshold has not occurred AND is not forecasted to occur	- High confidence rain accumulation threshold will develop during a specific time - Flash flood warning issued by NWS Communicate with your team to adjust as needed if rain accumulation is detected	- High confidence rain accumulation is expected Trails are evacuated	- Large area of prolonged heavy rain develops that meet the rain accumulation threshold for the venue - Flash flood warning issued by the NWS Activity is canceled at the discretion of leadership
HEAVY RAIN, NO THUNDER	No rain expected	- High confidence rainfall rates of 0.01 to 0.20 inches/0.25 to 5 mm per hour expected per hour - Flash flood watch issued by the NWS Communicate with your team to adjust as needed if heavy rain is detected	- High confidence rainfall rates of 0.20 to 0.40 inches/ 5-10 mm are expected per hour Trails are evacuated	- High confidence rainfall rates greater than 0.40 inches/10 mm are expected per hour - Flash flood warning issued by the NWS Activity is canceled at the discretion of leadership