



Hazard Mitigation and Weather Policy

Colorado Astrophotography is able to operate on clear, mild nights. We take guest safety as our highest priority, and are very aware of potential hazards in Colorado. Here is a list of our potential hazards that may affect the determination of whether we hold and experience or not.

- **Environment/Weather:** Colorado Astrophotography operates on clear, mild nights as both these elements are crucial for the integrity of astrophotography images.
 - If the weather is projected to be partly cloudy or worse, we will reach out with options to reschedule or refund or resume if conditions are safe (example: a partly cloudy night without snow, low wind, with a chance of clearing). This decision to be able to resume is always up to the host but guests will always be given the choice to reschedule or refund on a partly cloudy night or worse. Hazards we look out for are:
 1. Partly cloudy or worse sky conditions: We always will offer a chance to refund or reschedule if this is the forecast. Clarity is an essential factor in seeing the stars and we want to provide the highest quality experience possible, so for this reason, we consider this factor first.
 2. Wind: High winds are another weather condition that can interfere with the use of our photography and stargazing equipment. If the tripod can't be still, we won't get a clear picture, so if there are high wind warnings (above 20mph), we will refund or reschedule.
 3. Cold: We will cancel the experience for excessive (hypothermic) cold of 0 degrees or lower. Camera's don't function to their best ability in weather this cold (neither do humans) so we will provide an option to reschedule or refund for unsafe frigid conditions. More info can be found later in this section under the Cold Weather Safety portion of the policy.
- **Haze and Fires:** This is also a non-weather hazard we look out for as haze is a symptom of a nearby forest fire as well as haze interferes with the integrity of photographs. We will refund or reschedule due to haze interference. We do not allow any type of smoking, flames, or fires on experiences to ensure we are not a cause of such hazard.
- **Road closures/Avalanche Mitigation:** Road Closure and Avalanche Mitigation can be another non weather hazard that could prevent the running of our tour. Colorado Astrophotography scouts out all locations prior to taking guests to ensure roads are open, terrain and parking areas are safe, and the avalanche danger is low.
- **Terrain:** Ice, snow, mud, and gravel can all be types of terrain we experience in our tour locations. We keep our stops to plowed out parking lots and pull offs, but there can be ice, snow, mud, or rocks. We provide guests with headlamps and krampons to ensure safety of guests during experience.
- **Wildlife:** Colorado Astrophotography loves and respects wildlife and their environment. We ensure guests understand wildlife is not to be pursued, and is to be avoided whenever possible. We follow all practices from the Leave no Trace training. We ensure that no food or materials are left behind for wildlife to come upon. While noticing wildlife can be exciting, we always ask guests to remain in the vehicle until wild life has moved on, or we have. In the event wildlife comes unexpectedly, we do have horns and bear spray that guide keeps on hand in this circumstance.
- **Lost Clients:** We ask that all people stick together in large group in the night time. In the event that there were to be a lost client, we would respond according to our Lost/Injured policy. This policy and more detailed information around this can be found under the Lost or Injured persons section of this policy.



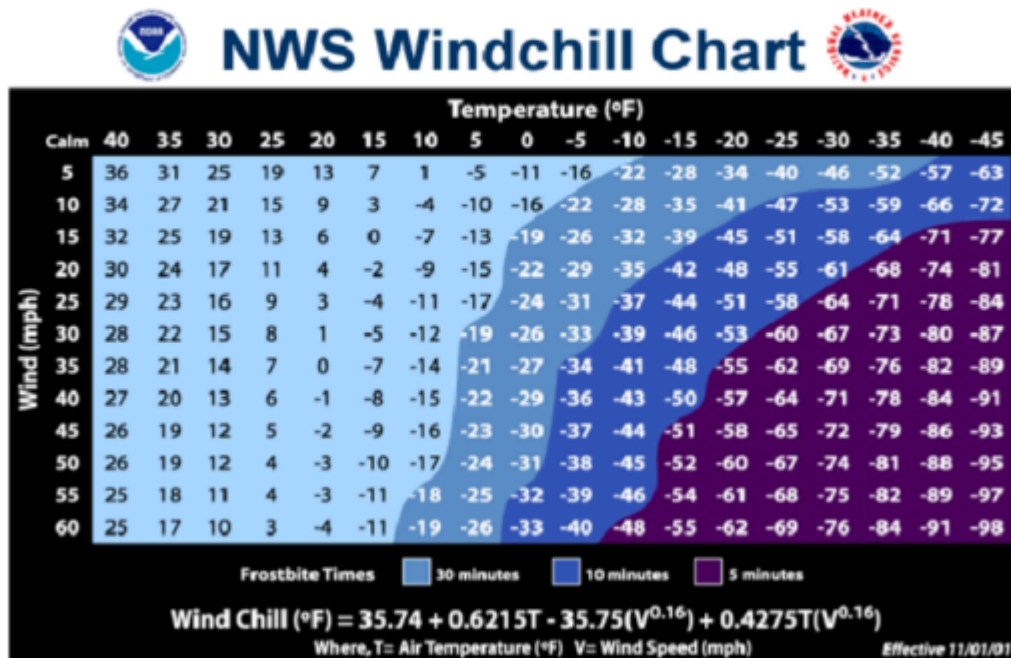
Safety Guidelines: Cold Weather

Colorado Astrophotography closely monitors the cold and its impact on experiences. We use the chart provided as a reference for how long we can be outside for each stop of the experience. While we do make every effort to provide hot hands, electric blankets, and car heaters; how you dress can significantly impact your experience. Cold weather is defined as any temperature that can negatively affect the body's thermoregulatory system. These do not have to be freezing to have this effect on the body. Individuals engaged in outdoor activities in cold, wet, or windy conditions are at risk for environmental cold injuries.

Steps for monitoring cold weather:

- Weather should be monitored by Colorado Astrophotography LLC Leadership and an advisory should be issued to participants by email the day prior to the event warning of potential modifications to the event as appropriate.
- Temperature, wind speed, and wind chill will be monitored.
- Colorado Astrophotography will use a Wind Chill Index Chart (Chart 1) as a measurement for impending weather situations and adjust outside activities as necessary using the Activity Modification table (Table 1).
- Based on information from the National Weather Service, local weather stations, and local on site Cold Index measurements, determine the risk of potential danger to participants.
- A weather warning will be issued to participants and distributed to event leaders.

CHART 1: Wind Chill Index Chart



Risk	Temp/Windchill	Modifications
Low Risk	30°F and below	Outside participation allowed
Moderate Risk	25°F and below	Outside participation limited to 60-90 minutes
High Risk	15°F and below	Outside participation limited to 45 minutes
Extreme Risk	0°F or below	Outside participation cancelled

Prevention of Cold Exposure Injury:

- In cold weather temperatures proper clothing should be worn and encouraged.
- These include:
 - Several layers around the core of the body to insulate, especially for those individuals who are least active
 - Long pants designed to insulate. A nylon shell or wind-pant on top serves well as a wind break.
 - Long sleeve shirt/sweatshirt/coat designed to block wind and insulate. These may be layered.
 - Gloves
 - Ear Protection/Hat
 - Wicking socks that do not hold moisture inside. Cotton absorbs and holds moisture; wool is a better alternative.
 - Participants who are not dressed adequately for the weather should not be allowed to participate.

Cold Exposure Signs and Symptoms:

- Early recognition of cold stress is important.
- Shivering, a means for the body to generate heat, serves as an early warning sign. Excessive shivering contributes to fatigue and makes performance of motor skills more difficult.
- Other signs include: numbness, pain, swelling and redness in fingers and toes or a burning sensation of the ears, nose or any exposed flesh. Eyes may be red and watery, and athlete may complain of headache or dizziness.
- As cold exposure continues, the core temperature drops.
- When the cold reaches the brain, the participant may exhibit sluggishness, poor judgment and may appear disoriented. Speech becomes slow and slurred, and movements become clumsy.
- If the participant wants to lie down and rest, the situation is a medical emergency and the emergency action plan should be activated.

Common Cold Exposure Injuries

Frostnip	<p>A nonfreezing injury of the skin, usually of the fingers, toes, ears, cheeks, and chin. Redness, numbness and tingling are present, but no tissue freezing occurs. Symptoms develop when blood vessels supplying the affected tissues narrow because of the cold temperature. Frostnip occurs at temperatures of about 59° or below.</p> <p>Do not rub affected area, but gently rewarm the skin with clothing or skin contact.</p>
Chilblain	<p>A more significant nonfreezing injury of the skin, which can also occur at temperatures at or below 59°. Swelling of the exposed area is noted due to the rupturing of blood vessel walls in addition to the redness, numbness and tingling of frostnip.</p> <p>Do not rub affected area, but gently rewarm the skin with clothing or skin contact.</p>
Frostbite	<p>Frostbite is the destruction of body tissues due to freezing which occurs at temperatures 32°F and below. Ice crystal formation in the tissues breaks apart cells, thereby destroying the tissues.</p> <p>Do not rub. Immerse the affected area in a warm, not hot, bath to reheat quickly.</p>
Hypothermia	<p>Abnormally low core body temperature. Because it happens gradually and affects thinking, an athlete may not realize he or she needs help. That makes it especially dangerous. A body temperature below 95° F is a medical emergency and can lead to death if not treated promptly.</p> <p>Symptoms include pale, bluish skin, mental and motor impairment, slurred speech, fatigue, decreased or abnormal heart rate and pulse, slow and shallow breathing.</p> <p>Warm the body as best as possible and activate EMS.</p>

Factors that may contribute to cold injuries include: dehydration; poor conditioning; wearing wet or tight clothing; malnutrition; altitude; or medical conditions associated with poor circulation, such as diabetes, heart disease, anemia, or sickle cell disease.

