



Frigid Weather Shooting

What you can miss by not going



Out to shoot in the cold.



Problems

- **Mechanical**
 - Batteries
 - LCD Display
 - Plastic Cracks
 - Slower Shutter Speed
- **Physical**
 - Cold
 - Wet
- **Temperature/Weather**
 - Iced up
 - Foggy/Condensation



Mechanical

- LCD's (Liquid Crystal Displays)
 - Grey Out
 - Change display slowly
 - Sensitive to the touch
- Frost on the lens
- Solutions: Tape or adhere hand warmers to the camera or lens.



Battery Power

- Batteries lose a lot of their power at low temperature.
- Most batteries are rated to about 0 degrees.
- Keep back up batteries in warm pocket
- If the battery dies, try warming it up. It may get a chargeback.
- If you're doing time-lapses or long exposures, I'd recommend carrying tape or rubber bands so you can place hand warmers close to your battery compartment. Also, consider investing in a battery grip to keep the power going.
- Put the depleted battery in a different pocket than the full batteries so you don't get confused.



Cold and Products

- Plastic
 - Brittle at cold temps

Try to avoid touching any bare metal with your skin!

- Metal tripod legs with ungloved hands can be a problem.
- You can get insulating sleeves for tripod legs (or you can use pipe insulation)
- carbon fiber tripod you'll also be safe.
- If you need more dexterity than you get wearing heavy gloves, to wear thin silk glove liners at low temperatures-don't use your bare hands!



External Elements

- In falling or blowing snow a lens hood can help to prevent problems with snow on the front element of a lens.
- Take advantage of conditions. Some unique features come out only in cold weather—keep an eye out for them!
- These include methane bubbles in lakes, hoar frost, the interplay of sidelight and dramatic temperature differences (such as fog over open water), icicles, long shadows and the softening effects of an untouched blanket of snow.



Snow and Blue Hue

- Since snow tends to reflect the sky it can take on a bluish cast
- You can use slight warming filter may help when shooting film.
- Shooting digitally, be sure to change your WB to get a warmer cast.
- Since snow has a very high UV reflectivity (80-90), a UV filter isn't a bad idea.



Weather the Weather

Bundle up.

- With high-performance gear on the market, it's much easier to be reasonably comfortable out there in the cold.
- Layer your clothing
- Buy a box of cheap heat packs and keep a box in the car.
- It doesn't matter how warm your body is, if your feet are cold, you won't last very long out there.
- Avoid sweating at all costs!



Clothing

- First rule of thumb: **No cotton!!**
- You will sweat, it's important to try and this with effective layering.
- Wearing layers of clothing allows you to selectively remove layers to adjust to the changing environment, or the amount of physical exertion you're having to perform.
- I usually find that photography involves a lot of sitting and waiting, a super warm down jacket layer is one of the most important pieces of clothing.
- Under Layers are just as important. I usually have four layers under my winter jacket. Moisture wicking materials
- Wool or moisture wicking socks are best to use in boots.



Protect Your Skin

- You want to minimize the amount of skin that's open to the cold and that means protecting your face.
- TIP! Neck gaiters can provide facial protection for some cold climates, but also double as lightweight and extremely packable lens covers for super telephoto lenses.
- Hands can get cold fast. Layer your gloves.
 - Shell Mitt from The Heat Company highly recommended
 - 3-layer system



Styles of Gloves



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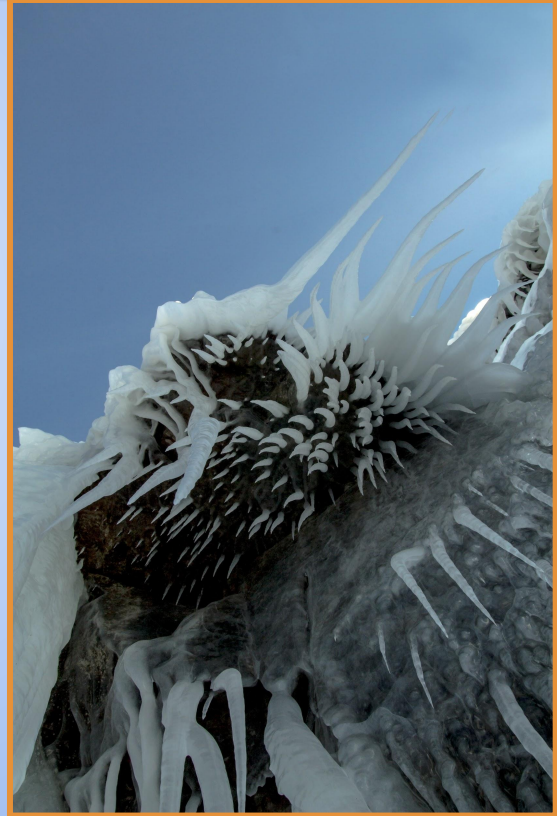
Get a Grip

- Ice Spikes or crampons are needed so you have a solid grip on ice or hard-packed snow
- Some well known ones are YakTrax XTR Extremes. Which are like a set of miniature crampons that fit over your boots.
- The YakTrax Extremes really mess up the surface of the ice so it's poor practice to use these in the company of other photographers as you might ruin their intended shot.
- Please consider your fellow photographers and either remove larger spikes, or use less spiky variants in those situations.
- Size can be tricky sometimes as every winter boots is different.
- The cheap rolling crampons are not good for anything but walking to your car from the house.



Kneeling/Lying on the Snow

- Often times your at a low angle or sitting on the snow/ice.
- Kneeling down on a frozen lake for a few minutes and you'll soon be numb and wet.
- A solution for this is a little thing called the Z-Seat from Thermarest or something along this line. Its a barrier between you and the snow.

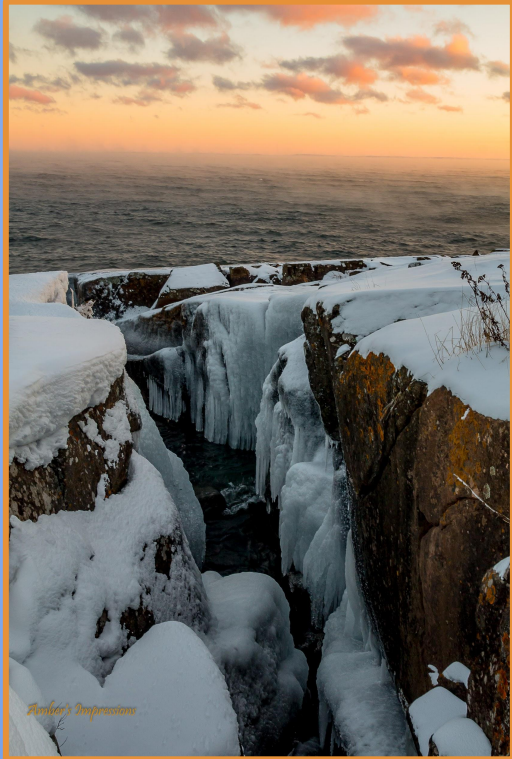


Maintain Energy

- Keep food and hot drinks handy.
- Eating a lot will keep you going for much longer. But if the food is hard to access, you might not bother to dig it out.
- Energy-rich in an easily accessible pocket, such as nuts, dried fruit and chocolate.
- A thermos with something hot and sweet will keep you warm from the inside out and help you to avoid some serious consequences of cold, such as hypothermia.
- Beware of eating or drinking to much...by product..having to go to the bathroom...in the freezing cold.



Gear Tips



- Know your gear. Bone-chilling temperatures are not ideal for figuring out how to bring up your histogram, changing aperture or operating your tripod. It's all about efficiency out there, and it really helps if you're familiar with your gear and can operate it with gloves on. If you have to, practice changing settings with mitts on in the comfort and warmth of your home.
- Use two camera bodies. Changing lenses can be a real challenge in cold, wintry conditions. Handling gear in the cold is hard enough, but when you change lenses you also risk exposing your sensor to moisture. If you have a backup body, consider going out with two cameras so you can shoot at different focal lengths without having to switch lenses.

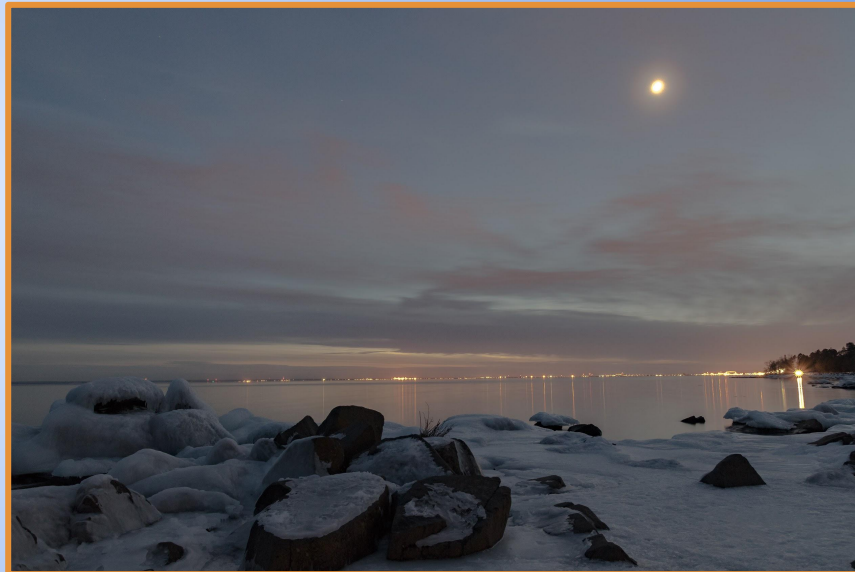
Camera Setting Tips

- Snowy conditions, where just about everything is white, you may need to dial in +1 or +2 stops of exposure compensation if you want white snow to be white, and not an 18 percent middle grey.
- Most auto exposure systems assume the scene they are metering is 18 percent grey and expose accordingly.
- Shooting digital remember to review your images and check the image histogram to make sure that the exposure is giving the desired results.
- Bracket your images. Whenever I find myself in a situation where time is of the essence, I bracket.



Hang in There Tips

- Give it time. It's easy to throw in the towel when you're facing super cold conditions.
- Embrace discomfort. No matter what you do, photographing in freezing temperatures will never feel like shooting a sunset on a beach in Florida.
- The bottom line is some of the best photo ops happen when it's brutally cold out, and some of the most magical places on Earth never get all that warm.
- Set yourself up well, and you'll find that you—and your photo gear—are able to withstand even the coldest of temperatures.



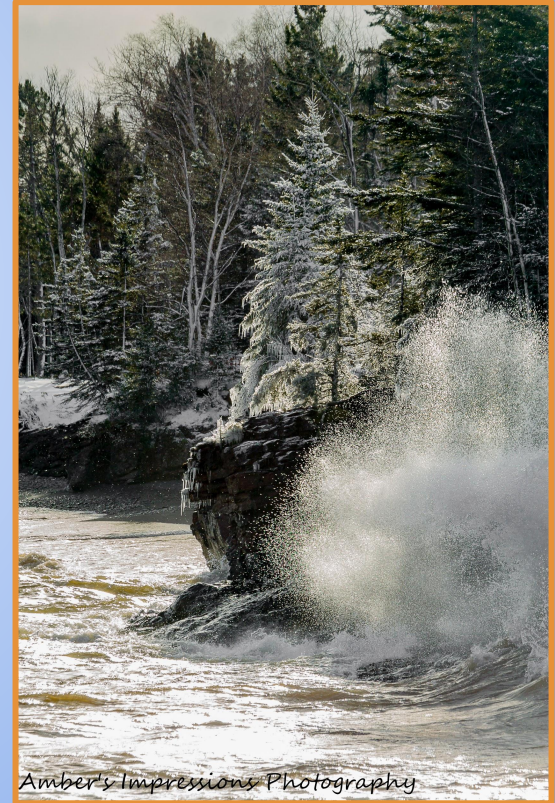
Moisture

- When taking a shot, take care not to exhale near the lens.
- Some companies make dehumidifying lens caps, which can help with that problem.
- It's not a bad idea to keep silica packs in your camera bag at all times and change them occasionally.
- The good news is that the moisture will eventually evaporate if the equipment is allowed to warm up to room temperature.
- If you do get condensation on a camera, remove the batteries and don't replace them until you are sure the camera has dried out.
- You can avoid problems if you seal your camera gear in an airtight plastic bag or keep it in your camera bag and allow it to acclimate before you take it out in warm environment.



Heading Home

- Warm, moist air, moisture will condense out of the air and onto the cold surfaces.
- The problem isn't so much the moisture you may see on the outside of the camera or lens, but the moisture which condenses on internal parts.
- Seal it. Depending on your gear, you may need to be cautious about drastic temperature differences, such as when you return to heat blasting in your car or go back indoors.
- Before exposing your gear to that warmth, it's recommended that you place it in a sealed bag or leave it in the camera bag until it has reached room temperature.
- Add a silica gel pack to the bag to further cut down on moisture.



Question and Answer

