



ALASKA AURORA PHOTOGRAPHY CAMERA GEAR

***** A bulleted list of my aurora camera gear is at the end*****

Camera body: Any modern DSLR or mirrorless body with a manual exposure and “Bulb” capability is suitable for night photography. Late model bodies have better sensors for noise at high ISO settings.

Mirrorless cameras: Until technology improves, batteries don’t last as long on mirrorless bodies as they do on DSLRs. However, the advantage of mirrorless bodies over DSLR’s is you can keep the camera powered with an external battery pack and cord. You can get any number of external battery packs from Amazon, Best Buy, B&H, etc. I use a 20,000 mAh Nitecore battery pack and a 3’ cord that plugs into my camera. I can keep the battery pack inside my coat. This is a luxury if you do a lot of extreme cold photography and don’t have access to electricity to charge normally.

Batteries: Bring at least 2 extra fully charged batteries and keep them warm. I use an inside pocket of my parka. The cold kills batteries fast. Even at -20F 2-3 fully charged batteries will get you through an all night shoot.

Lenses (in 35mm full frame equivalent): Wide angle with a maximum aperture of at least 2.8 will work. I used a prime 20mm, f2.8 on my DSLR body, a Canon 5D, Mark IV. With mirrorless, I now use a 24mm, f1.8. F4 lenses can be limiting especially if you are wanting sharp pinpoint stars on dark nights with little to no moonlight. With 50% or more of moon illumination, I have done just fine with F4 lenses. Stick with rectilinear wide angle lenses. Fisheye lenses really don’t render visually pleasing foregrounds for aurora shooting. 35mm/F1.4 are popular but I often find that too tight when auroras fill much of the sky.

I think 20-28mm range is ideal for most aurora situations. Be sure your lenses have a properly fitting lens hood. They are helpful at reducing condensation on the lens and stopping stray light from a headlamp or vehicle passing by.

Bring other lenses though for other subjects. We can see very colorful displays low on the horizon and one can get great images with a 70-200 lens with low on the horizon displays.

Canon released a 24-105/f2.8 This would be a great aurora lens because sometimes the display is low on the horizon and shooting aurora at 105 would help emphasize the foreground and eliminate a lot of empty sky above the aurora. When displays fill the sky, one can easily zoom out to 24mm.

Headlamp: Even on bright moonlit nights, a headlamp is essential to see camera controls when setting up or readjusting. Please ensure your headlamp has red light capability. This is essential to reduce interfering with images of others around us.



Tripod: A high quality tall heavy tripod is best suited for aurora shooting. Cheap travel tripods with too many leg extensions (more than 4) are all but useless in Alaska. Carbon fiber will be better than metal and warmer to the touch. There's a good chance that you will have to punch your tripod down into 2 feet or more of snow. A short travel tripod wouldn't give you much height to work with.

Heads: Most photographers use ball heads and they are really the best choice for most outdoor photography situations. In extreme cold, most ballheads will lose any panning function as the lubricant turns to concrete in the cold. I use Really Right Stuff ballheads. The panning is sluggish but the main ballhead operation still works.

Plates and Clamps: Working in uncomfortable cold is no place to be fussing with knobs and trying to transfer plates from one camera body to another. All bodies and lenses should have a dedicated plate that is rock solid and will not move. For cold weather shooting I use a quick release clamp vs screw knob that is easier to work with heavy gloves. I use Really Right Stuff plates that are custom sized for each camera body and lens with tripod collar.

Camera bag: Have a bag you can easily place your camera with lens attached into. Changing lenses or breaking down your camera for transport in extreme cold and around snow is not a good idea. You can place your rig in a gallon-sized freezer zip loc bag before bringing it back into the warm vehicle to avoid condensation. My preference is a small padded camera bag. Before returning to the vehicle I place the lens cap on and put the outfit into the camera bag and zip it up completely before putting it into the warm vehicle. At the next location, I remove my camera with lens attached outside to avoid condensation and fogging of the lens.

My winter/aurora camera set up

Body: Canon R5, Canon R7

Lenses: Canon RF 24mm/f1.8 STM

Tripod: Really Right Stuff TFC-33 (older version of this)

Head/clamp: Really Right Stuff BH-40 with lever release

Plates: Really Right Stuff R5 L-plate

Headlamp with rechargeable battery with red light capability (Nitecore brand)

At least 2 extra batteries or battery pack with 3' cord (if your camera allows charging this way)

General winter landscape

RF 14-35mm/f4-good for tight spots in ice caves

RF 70-200mm/f4-my favorite landscape lens for Alaska

Circular polarizer

Dark polarizer-6-stop ND combined with circular polarizer in one filter-great for moving water and clouds.