

Re: Observation/Cold Weather Gear Test Report

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- *From:* deathcow@xxxxxxxxx
 - *Date:* 29 Dec 2005 00:51:20 -0800
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I've lived near Anchorage, Alaska for the last 28 years. My cutoff for observing is -5F (-20C). Every couple degrees between -5F (-20C) and 10F (-12C) help a LOT. Those 15 degrees are much more important than any other 15 degrees!! I can observe all night at 10F (-12C), but down at -5F I'm good for an hour or two.

No matter the temperature, I don't ever wear more than just blue jeans for my legs. I wear normal socks and Timberland boots and that seems to handle the feet just fine. I'll wear a flannel long sleeve shirt and a good large down jacket. A good warm hat is the most important item of all, I like the kind that wrap down around the ears and fasten under the chin (we call them dog musher hats). Gloves are good to have around but super annoying, I have to take them off all the time for focusing and changing EP's and they usually end up off. Hats are essential !!

Thermal care of the scope, binoviewers, eyepieces and other accessories, to me, is paramount. Humidity control around optics is absolutely essential. For big temperature changes (sometimes 75F change here), repeat after me:

- * I will always bring a scope out in a sealed case, and allow it to come to temperature in the case.
- * I will always leave the lens capped for 15 or 20 minutes after bringing the scope out of the case.
- * I will always keep the scope case closed as much as possible when its outside.
- * I will always put a PWT dessicant scope plug in the focuser before putting it back in the case. (Extra dessicant packs throughout the case certainly do not hurt.)
- * I will always let the scope warm back up for at least 12 hours before opening the case again.
- * I will always put my binoviewers, eyepieces, cameras, etc. in sealed tupperware or ziplock containers before bringing them back in the warm house.

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This works perfectly for me with extreme temp. changes. I can swing my scope by 75 degrees twice daily and there is no condensation anywhere on the scope or lens ever. (Except for frost on the outside of the tube... sometimes lots of frost, mostly from breath I think.)

Use a dew heater if your environment needs one, mine does not. It's almost always bone dry outside in the Winter here. I do use a long insulated dew shield add on to keep the offhand frost crystal from forming on the lens.

When it gets down to 0F, keeping the human happy is easy. Keeping the mount and scope working is not too bad. Keeping eyepieces happy is practically IMPOSSIBLE !! (Pulls out last hair before it can turn gray!) At 0F to -5F, for me: Tupperware or Ziplocs, Lens Pens and a warm house nearby become essential observing tools. Eyepieces wont last too long before a hot and humid human fogs them up. Then I put them in the case, seal it, and bring it indoors for 20 minutes to warm up. Bring them out, Lens Pen them if they need it, and repeat the process until they fog again. There is absolutely no way on this Earth I can think of to prevent eyepieces at an ambient temperature of 0F to keep from fogging with a breathing human mouth constantly inches away. I breath out the side of my mouth, otherwise they would fog immediately. I have not tried eyepiece heaters but I really stay away from anything that disturbs nicely cooled down systems. I doubt a eyepiece warmed to 10F would fair any better?

- **References:**

- ◆ **Observation/Cold Weather Gear Test Report**

- ◇ *From:* John Nichols

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