



Fighting the Winter Blues

By Brad Young, Astronomy Club of Tulsa

“Winter is coming, and when the Long Night falls, only the Night’s Watch will stand between the realm and the darkness that sweeps from the North.” – G.R.R. Martin

I've written before about the difficulties of observing in winter and so have many other authors. No one seems to have come up with a solution to cold, windy, often cloudy weather, lasting weeks on end, when it seems you'll never see stars again. But on rare occasions when it is clear enough to see anything, I find that even a few minutes outside with binoculars or even just my eyes can suffice to give me a little boost.

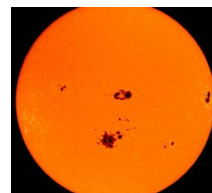
Sometimes, even in winter when it is clear, not moony and not too frigid, I do observe with my telescope. But that's not the norm at all. Instead, often we must make do with a glance at a few stars peeking out behind clouds, or a clear night with vicious wind howling from the north. On those nights, I try to get outside for as long as I can stand it and just absorb star light. We all know that seasonal affective disorder (SAD) can be caused by lack of sunlight, and I think for amateur astronomers the same can be said for lack of starlight. If you can get a few minutes to observe, using binoculars will often be enough to see several items. Of course, the first thing that comes to mind are the planets, since they are usually bright and this year, we are treated to a nice lineup in the evening sky of most of them.



Stargazers can substitute the brilliant stars of winter at night

A lot of times when I think about where the planets are, I begin at the Sun and work my way around the sky. So, considering that, Pluto, formerly known as a planet, is pretty much in solar conjunction right now. From there you move quite a way out almost to the southern direction at dusk to

spot Venus. Venus was at easternmost elongation on January 10th 47° east of the Sun. The planet of love will be her brightest on Valentine's night February 14th. She is in the middle of a magnificent winter apparition which will culminate with her passing between us and the sun right around the spring equinox, as I described in last month's article. Saturn begins a month almost lost in the sunset and will soon be gone, along with Neptune. Further along over into eastern Aries is Uranus, which will also need at least binoculars now as it's past opposition by a few months. And then the hard to miss Jupiter spends most of the month near Aldebaran, the eye of the bull in Taurus. It may be the second star you see each night after Venus appears, but he's way over about halfway up in the eastern sky. Mars is just past opposition and will be moving to the west all month before coming to a halt. So, we're lucky enough to have all the available planets in the evening sky right now, except for Mercury. But even he will make an appearance at the end of the month if it starts its evening apparition low in the west, soon to meet with Venus early next month.



Don't ignore the sun in winter, either. It's obviously visible at the warmest times of day and it is not scorchingly hot and high as in summer. We are just past solar max for this cycle, so now is a great time to drag out your solar filter from the eclipse, or a H-alpha scope and check on our nearest star. Meanwhile, you'll be out in the sun and fighting SAD and making vitamin D.

Beyond the planets, there are several wide double stars you can see in binoculars. The Astronomical League has an observation program dedicated to exactly this kind of object. The website for the program includes a list of double stars suitable for binoculars, many of which are visible in the winter sky. With a little planning, you can probably catch three or four of them and one trip outside and then run back in for some hot cocoa. Here are few wide, easy ones from that list:

Constellation	Designation	R. A. (J2000)	Dec. (J2000)	Magnitudes: A, B	Separation (") Rho	Position Angle (°) Theta
Canis Major	η	07 24	- 29 18	2.5, 6.8	177	287
Gemini	ν	06 29	+ 20 13	4.1, 8.0	113	330
Gemini	ζ	07 04	+ 20 34	4.1, 7.7	102	347
Lepus	γ	05 44	- 22 27	3.6, 6.3	96	349
Pegasus	ε	21 44	+ 09 53	2.5, 8.7	144	318
Taurus	κ 1 & 2 (65 & 67)	04 25	+ 22 18	4.2, 5.3	339	174
Taurus	θ 2 & 1	04 28	+ 15 52	3.4, 3.9	337	347

Note: kappa Tau also forms a nice asterism with epsilon and 72 Tau.

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The same can be said for a few deep sky objects. Everyone knows the Orion Nebula is a fantastic object in a telescope,

but have you ever seen it in your binoculars? There are several Messier objects visible in binoculars. Again, there is an Astronomical League observation program for those. A few winter sights from that list include:

Messier	Name	R.A.		Dec.		Mag.	Typ	Con	Size
31	Andromeda Galaxy	0	43	41	16	4.5	Gal	And	178'
34	Perseus Cluster	2	42	42	47	6	OCI	Per	35.0'
45	Pleiades	3	47	24	7	1.4	OCI	Tau	110.0'
37	Salt & Pepper Cluster	5	52	32	33	6	OCI	Aur	24.0'
42	Orion Nebula	5	35	-5	23	5	DfN	Ori	85' X 60'
35	Shoe-buckle Cluster	6	8.9	24	20	5.5	OCI	Gem	28.0'
41	Little Beehive	6	47	-20	44	5	OCI	CMa	38.0'
47		7	37	-14	30	4.5	OCI	Pup	30.0'

Of course, there are non-Messier objects like the Double Cluster, the Hyades, and the (Big) Beehive to look at in binoculars, too. It's been interesting to watch Mars run up to the Beehive, only to retrograde back under Castor and Pollux, while Jupiter has looped from Messier 1 (the Crab Nebula), back to the Hyades.

"Look at the stars - see how they shine for you" - Coldplay

But besides doing programs, just standing outside for a few minutes and gazing at whatever stars and objects you can see may help to dispel the winter blues. You don't have to be out there long, if you just let yourself enjoy what you can see and stop worrying about how if it was a little warmer or a little clearer you might be able to see more with your telescope. Whatever part of the sky is clear is like a little secret area for you to explore and see what you can remember about how the constellations are laid out.



Then there is a worse scenario of all, the weeks and weeks of overcast skies that sometimes plague us during winter. I don't have a good solution for that, unless you have access to remote imaging telescopes where the weather is clearer. But this might be a great time to take care of some maintenance items on your equipment or do some planning for the next night you do get to observe, so you'll be better prepared to use the small amount of time you'll have and not fumble around in the cold trying to figure out what to look at.

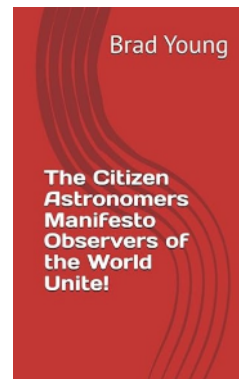
There's a fire in the corner slowly dying; sometimes I just don't feel like goin' on

And yet I know it's more than worth the waiting for another chance to see the summer sun - John Denver

Of course, the only real solution for the winter blues is spring. And I promise you, no matter how bleak the weather is right now, spring will come sometime later in the year. But there's no reason to sit and wait for it, if there's a clear sky outside or at least a few stars are visible. Go outside and enjoy what you can see and imagine all the wonderful objects you will see when the weather gets a little better.

Shameless plug - my second book is available on Amazon now, \$5 paperback, \$4 Kindle. It is more a monograph on one subject this time, shorter and more concise. It also includes four articles from last year.

<https://www.amazon.com/dp/B0DT4H3Y9Z>



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