

SPECTRUM

Northern Cross Science Foundation Newsletter

January 2013

LOOKING UP

January 3 , Thursday

General Meeting

7:00 p.m. - Show & Tell

7:30 p.m. - Main Program

Business meeting to follow

January 5, Saturday

Candlelight Ski & Hike

6:00 p.m. to 9:00 p.m.

Harrington Beach

January 17, Thursday

Board Meeting

7:30 p.m.

Home of Jeff Setzer

January 19, Saturday

Horicon Marsh

6:00 p.m. to 9:00 p.m.

February 2, Saturday

Candlelight Ski & Hike

6:00 p.m. to 9:00 p.m.

Harrington Beach

February 7, Thursday

Annual Banquet

Fox and Hounds Restaurant

Hubertus, WI

(See Banquet Reservation Form Insert)

How to Start Right in Astronomy

adapted from an article by Alan M. MacRobert (S&T)

What advice would most help beginners?

A while ago, the Sky & Telescope editors got together to brainstorm this question. Pooling thoughts from more than 100 years of collective experience answering the phones and mail, they came up with the following pointers to help newcomers past the most common pitfalls and onto the likeliest route to success.

1. Learn the sky with the unaided eye.

Astronomy is an outdoor nature hobby. Go out into the night and learn the starry names and patterns overhead. Use the monthly naked-eye star charts available in popular Amateur Astronomy Magazines or free on the internet. Even if you live in a densely populated, light-polluted area, there's more to see up there than you might imagine.

Even if you go no further, the ability to look up and say, "There's Polaris" or "That's Saturn" will provide pleasure, and perhaps a sense of place in the cosmos, for the rest of your life.

2. Ransack your public library.

Astronomy is a learning hobby. Its joys come from intellectual discovery and knowledge of the cryptic night sky. But you have to make these discoveries, and gain this knowledge, by yourself. In other words, you need to become self-taught.

The public library is the beginner's most important astronomical tool. Comb the astronomy shelf for books about the basic knowledge you need to know, and for guidebooks to what you can see out there in the wide universe. Read about those stars and constellations you're finding with the naked eye, and about how the stars change through the night and the seasons. If your library doesn't have enough, cruise your local bookstores.

Of course the Web is a tremendous resource. But the Web is a hodgepodge. There are excellent beginner's sites, but what you really need right now is a coherent, well-organized framework into which to put the knowledge that you will pick up as you go along. In other words, you need books. Go to the library.

3. Thinking telescope? Start with binoculars.

Binoculars make an ideal "first telescope" — for several reasons. They show you a wide field of view, making it easy to find your way around — whereas a higher-power telescope magnifies only a tiny, hard-to-locate bit of sky. Binoculars show a view that's right-side up and straight in front of you, making it easy to see where you're pointing. (An astronomical telescope's view, by contrast, is often upside down, is sometimes mirror-imaged as well, and is usually presented at right angles to the direction you're aiming.) Binoculars are also relatively cheap, widely available, and a breeze to carry and store.

And their performance is surprisingly respectable. Ordinary 7- to 10-power binoculars improve on the naked-eye view about as much as a good amateur telescope improves on the binoculars — for much less than half the price.

For astronomy, the larger the front lenses the better. High optical quality is also important, more so than for binoculars that are used on daytime scenes. Modern image-stabilized binoculars are a tremendous boon for astronomy (though expensive). But any binoculars that are already knocking around the back of your closet are enough to launch an amateur-astronomy career.

4. Dive into maps and guidebooks.

Once you have the binoculars, what do you do with them? You can have fun looking at the Moon and sweeping the star fields of the Milky Way, but that will wear thin pretty fast. However, if you've learned the constellations and obtained detailed sky maps, binoculars can keep you happily busy for years.

They'll reveal dozens of star clusters, galaxies, and nebulae. They'll show the ever-changing positions of Jupiter's moons and the crescent phases of Venus. You can identify dozens of craters, plains, and mountains on the Moon.

You can split scores of interesting double stars and follow the fading's and brightening's of numerous variable stars. If you know what to look for.

A sailor of the seas needs top-notch charts, and so does a *Continued on Pg 3*

December Meeting Minutes

By Kevin Bert

The December business meeting of the Northern Cross Science Foundation was held at the Unitarian Church North in Mequon. President Jeff Setzer opened the meeting at 7:35 pm. and welcomed over 26 members and guests. He then asked for standard reports.

Treasurer Gene DuPree reported a balance of \$399.49 in the Observatory account and \$8358.60 in the general fund. Membership statements have been sent along with the Spectrum and dues or magazine subscriptions could be paid at any time.

Secretary Kevin Bert noted that the final membership roster for 2012 was 81 with the addition of the evening's newest member Brian Wollner from Random Lake. Kevin said the Astronomical League is looking for an assistant editor for the Reflector.

Under new business, Jeff moved on to the election of board members. He reminded the membership that Joyce Jentges and Kevin Bert had been nominated last month and said they would run.

The floor was opened for any additional nominees. Rob Powell nominated Nolan Zadra and was seconded by Rick Kazmier-ski. Nolan respectfully declined. Robert Radtke's name was heard but he declined to run before he could be seconded. Rick Kazmier-ski nominated Dan Bert and was seconded by Joyce Jentges. Dan accepted. After three additional attempts and no names given, nominations were closed. Charlotte DuPree made a motion to elect all three nominees by verbal acclamation. Rob Powell seconded the motion. Jeff Setzer called for those in favor of the motion to respond by saying eye, and those opposed by saying nay. The eyes had it and the motion was passed.

A brief discussion preceded the vote to organize an imaging committee. It was stressed that this vote was only to start a committee that would some time in 2013 present a proposal to use the clubs resources to acquire equipment. The board will have the final say to proceed or not. Nineteen of those in favor raised their hands during the vote. A total of three were opposed. Kevin had a clipboard for those to sign for those interested in the committee. Updates will come from the committee as they work up a proposal.

Under upcoming events, Jeff said that the next public viewing opportunities would be in 2013. The Ski and Hike at Harrington Beach on the January 5th followed by a night at Horicon on the 19th.

With no other new business Jeff closed the meeting at 7:50.

Observing Summary for 2012

By Dan Bert

The volunteer participation forms completed at each public viewing event have now been totaled. Looking back at this past year, a total of 23 public viewing events were held at the Jim & Gwen Plunkett Observatory. All together 25 different members logged a combined total of 403 volunteer hours to public outreach at the park. Thank you for your help!



Things to See In the January 2013 Night Sky By Don Miles

Mars, Pluto, & Mercury: Both Mars & Pluto trail very close to the Sun, so neither are worth hunting down for another couple of months. Mercury is working its way around the "back side" of the Sun, so will also be out of view this month. By mid-February, it will trail the Sun and be an evening object.

Neptune & Uranus: Both are highest as the Sun sets, with Neptune being the first to set at about (8:30pm / 7pm). Neptune (mag 7.9) is in the constellation Aquarius. Uranus is at (mag. 5.8) in the constellation Pisces, and sets about (11:30pm / 9:30pm).

Jupiter: Is already up at sunset, is highest in the sky around (9:30pm / 7:30pm), and is located in the constellation Taurus. This month, bright Jupiter (mag -2.7) sets around (5am / 3am), and will continue to move to the West towards the Pleiades. Starting in February, it will begin to move steadily to the East compared to the background stars for most of 2013.

Saturn: Is a late evening /early morning object rising about (2:30am / 12:30am) this month, and is highest in the sky at sunrise. It's at (mag 0.6), and stays in the constellation Libra. The views will still be excellent with the rings still tipped at a steep angle so you can see a lot of detail.

Venus: Is presently a morning object rising before the Sun about (6am / 6:30am) at a brilliant (mag -3.9). Venus rises later and later throughout the month, and is working its way around the "back side" of the Sun. This summer, it will once again be an evening object.

Moon:

January 4th: Last Quarter

January 11th: New Moon

January 18th: First Quarter

January 26th: Full Moon

Special Events:

There is only one meteor shower to speak of this month, and those are the Quadrantids. They peak the early evening of the 3rd, after the sky reaches full darkness (about 6pm), and into the later evening. The moon will rise about 11pm, The debris trail is very narrow, so if you've got clear skies, you won't have to freeze all night long looking for one or two. Predicted rates could be as high as 120/hr., and travel at a moderate speed of about 25 miles/second, and are known to have a bluish color to them. Look in the direction of Arcturus in Bootes (to the northeast).

2013 NCSF Annual Banquet

The Annual NCSF Banquet will again be held at the Fox & Hounds Restaurant in Hubertus. The registration form is enclosed as part of this Newsletter (.pdf attachment for those receiving digital copies). Instructions are included on the insert. Mail completed form to Gene DuPree by January 21st.

Jim and Gwen Plunkett Observatory



Observatory Director:
Dan Bert: 262-375-2239

January General Meeting

Show & Tell

There will not be a 101 Class this month. Instead, we will have a Show & Tell session for members to display and describe purchases and/or gifts received this Holiday season or during the past year. Have you acquired some recent Astronomy related item you think might be of interest, bring it to the January meeting.

Constellation of the Month

Auriga



Main Program...by Jeff Setzer

"Astronomy Apps"

Time permitting, Jeff will discuss and demonstrate Astronomy applications for that mobile device you have, or may be thinking of purchasing. Sky Safari and Jupiter Moons are just several of the exciting user friendly Apps available for Astronomy.

RELATED INFO

New Member

NCSF Welcomes New Club Member

Brian Wollner

At the December Board Meeting, Executive Officers were elected.

President—Jeff Setzer

Vice President—Joyce Jentges

Secretary—Kevin Bert

Treasurer—Gene DuPree

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sailor of the skies.

Fine maps bring the fascination of hunting out faint secrets in hidden sky realms. Many guidebooks describe what's to be hunted and the nature of the objects you find. Moreover, the skills you'll develop using binoculars to locate these things are exactly the skills you'll need to put a telescope to good use.

Plan indoors what you'll do outdoors.

Spread out your charts and guides on a big table, find things that ought to be in range of your equipment, and figure out how you'll get there. Plan your expeditions before heading out into the nightly wilderness.

5. Keep an astronomy diary.

This one is optional. But we notice that the people who get the most out of the hobby are often those who keep an observing logbook of what they do and see. Keeping a record concentrates the mind — even if it's just a jotting like "November 7th — out with the 10x50 binocs — clear windy night — NGC 457 in Cassiopeia a faint glow next to two brighter stars." Get a spiral-bound notebook and keep it with the rest of your observing gear. Being able to look back on your early experiences and sightings in years to come gives deeper meaning to your activities now.

For some people, anyway. If this isn't your thing or becomes too much of a chore, never mind.

6. Seek out other amateurs.

Self-education is fine as far as it goes, but there's nothing like sharing an interest with others. Hundreds of astronomy clubs exist worldwide; see our directory. Call or e-mail a club near you, or check out its web site, and see when it holds meetings or nighttime observing sessions — "star parties." These events, some of which draw hundreds of amateurs, can offer a fine opportunity to try different telescopes, learn what they will and will not do, pick up

advice and new skills, and make friends.

7. When it's time for a telescope, plunge in deep.

Eventually you'll know you're ready. You'll have spent hours poring over the ads and reviews. You'll know the different kinds of telescopes, what you can expect of them, and what you'll do with the one you pick.

This is no time to skimp on quality; shun the flimsy, semi-toy "department store" scopes that may have caught your eye. The telescope you want has two essentials. The first is a solid, steady, smoothly working mount. The second is high-quality, "diffraction-limited" optics.

Naturally you'll also want large aperture (size), but don't lose sight of portability and convenience. Remember, the best telescope for you is the one you'll use most. Sometimes gung-ho novices forget this and purchase a huge "white elephant" that is difficult to carry, set up, and take down, so it rarely gets used. How good an astronomer you become depends not on what your instrument is, but on how much you use it. (For more specific tips on buying, see "A Guide to Choosing a Telescope").

Many new telescopes have built-in computers and motors that can, in theory, point the scope to any celestial object at the push of a few buttons (after you do some initial setup and alignment). These "Go To" scopes are fun to use and can certainly help you locate sights you might otherwise overlook. But opinions in the amateur-astronomy world are divided about whether "flying on automatic pilot," at least for beginners, keeps you from learning to fly on your own. We think it's important, at least for backup purposes, to be able to use your charts and constellation knowledge to find telescopic objects by yourself — especially if the

scope's batteries die after you've driven 50 miles to a dark-sky location!

And as Terence Dickinson and Alan Dyer say in their Backyard Astronomer's Guide,

"A full appreciation of the universe cannot come without developing the skills to find things in the sky and understanding how the sky works. This knowledge comes only by spending time under the stars with star maps in hand and a curious mind." Without these, "the sky never becomes a friendly place."

It's true that telescopes can cost thousands of dollars, but some good ones can be had for only a few hundred. Can't afford the scope you want? Save up until you can. More time using binoculars while building a telescope fund will be time you'll never regret.

If you choose to start with a small but high-quality scope, it can serve as your traveling companion for a lifetime — whenever it's impractical to bring along the big,

more expensive scope that you eventually buy after your commitment to the hobby has passed the test of time.

8. Lose your ego.

Astronomy teaches patience and humility — and you had better be prepared to learn them. Not everything will work the
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Leaders for Public Viewing

January 5

Candlelight Ski & Hike

Harrington Beach

Gene and Charlotte DuPree

January 19

Candlelight Ski & Hike

Horicon Marsh

Gene and Charlotte DuPree

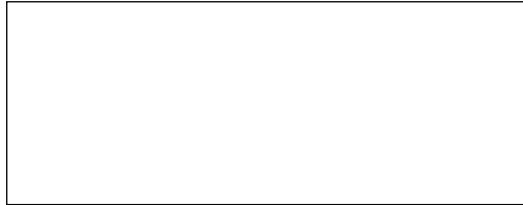
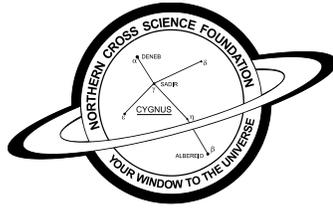
February 2

Candlelight Ski & Hike

Harrington Beach

Gene and Charlotte DuPree

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first time. You'll hunt for some wonder in the depths and miss it, and hunt again, and miss it again. This is normal. But eventually, with increasing knowledge, you will succeed.

There's nothing you can do about the clouds that move in to block your view, the extreme distance and faintness of the objects of your desire, or the special event that you missed because you got all set up one minute late. The universe will not bend to your wishes; you must take it on its own terms.

Most objects that are within the reach of any telescope, no matter what its size, are barely within its reach. So most of the time you'll be hunting for things that appear very dim or very small, or both. You need the attitude that they will not come to you; you must go to them. If flashy visuals are what you're after, go watch TV.

9. Relax and have fun.

Part of losing your ego is not getting upset at your telescope because it's less than perfect. Perfection doesn't exist, no matter what you paid. If you find yourself getting wound up over Pluto's invisibility or the aberrations of your eyepiece, take a deep breath and remember why you're doing this. Amateur astronomy should be calming and fun.

Learn to take pleasure in whatever your instrument can indeed show you. The more you look and examine, the more you will see — and the more you'll become at home in the night sky. Set your own pace, and delight in the beauty and mystery of our amazing universe.

SPECTRUM

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The NCSF supports the International Dark sky association.



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This Issue, along with back Issues of SPECTRUM, can be found on the NCSF Web Site.

<http://www.ncsf.info>

Monthly Meeting Information

7:00 p.m. Astronomy 101
7:30 Main Program
Unitarian Church North
13800 N. Port Wash. Rd.
Mequon, WI 53097