

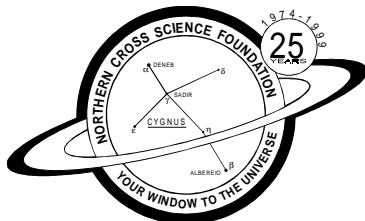
SPECTRUM

Northern Cross Science Foundation Newsletter

September 1999

LOOKING UP

- Sep. 2 Thursday**
Astronomy 101
7:00 PM
General Meeting
8:00 PM
Carlson Tool & Mfg.
- Sep. 4 & 5 Sat. & Sun.**
Public Viewing
8:00 PM
Pike Lake State Park
- Sep. 11 Saturday**
Members Night
7:00 PM
Kevin Bert's Home
- Sep. 15 Wednesday**
Board Of Directors
7:30 PM
Jeff Setzer's House
- Sep. 17 - 19 Fri. - Sun.**
Astrofest
4-H camp
Shaw-waw-nas-see
Kankakee, Illinois



A Publication Of
The Northern Cross
Science Foundation

Northwoods Starfest

by Kevin Bert

I had a great time at the 98 Starfest and was looking forward to this year's event. Attendance was limited this year so I registered early. I originally planned to drive myself and bring my own scope. Later Jeff Setzer asked if I would be interested in coming along with him. But there was only enough room for me and some gear. I would have to leave my scope behind if I took him up on his offer. It took only a few seconds to decide once I realized that I would be able to spend most of the time viewing through Jeff's 22" Star-



master! fast. We had a number of interesting topics to discuss on the way. Which reminds me that I have another neat project to machine up some time in the future.

But getting back to the story we had made it to the Beaver Creek Reserve with plenty of time to set up the 22" and drop off our gear in one of the cabins. We ran into Gene and Charlotte Du-Pree a short time later. They had setup camp near the observing field and Hobbs Observatory. It just so happened that they were

on the tail end of their honeymoon. Gene had the big 12.5" Dobsonian ready for

(See **WOODS** on page 2)

The close to five hour ride seemed to go

FOV Star-Hopping

From Lake County Astronomical Society <http://www.bbso.njit.edu/>

There's a trick used by every star-hopper: hunting down objects by "stepping off" using the field of view (FOV) in the telescope. But you first have to determine the actual field of view for the telescope and eyepiece combination you're using. There are several methods, but the one that's most accurate also happens to be easy to use at your scope.

A star on or near the celestial equator moves westward at the rate of 15 degrees every hour, or 1 degree every 4 minutes. The following procedure uses that principle to find the field of view of a telescope with any given eyepiece. If you have an equato-

rial mount, set the scope up and align it with the pole just as you would for an evening's observing. Turn the scope to point at a right angle to the polar axis. It will now be pointed along the celestial equator. If you have an altazimuth mount, such as on a Dobsonian-mounted telescope, you will need to use a star chart to locate a star along the celestial equator. Find any convenient star near the equator and position it at the western edge of the field of view. Note the time. Let the star drift to the east side. Note the time. Divide the time in minutes that it took the star to drift across the field by 4 to get the

(See **Hopping** on page 3)

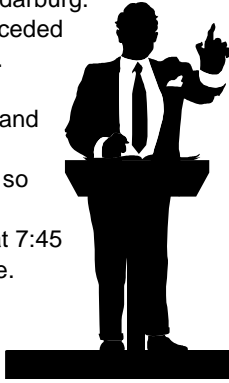
August Minutes

By Kevin Bert

The August meeting of the Northern Cross Science Foundation was held outside on the deck of Carlson Tool & Mfg. in Cedarburg. The 101 Program preceded the business meeting.

President Jeff Setzer and Vice President Dan Prosser were absent, so Secretary Kevin Bert opened the meeting at 7:45 p.m. to over 15 people.

Kevin welcomed all that were in attendance and acknowledged the presence of long time member Joyce Haussler and her husband



Don who were visiting the area from Kansas City, Kansas.

Brad Plaumann gave a brief treasurers report. Very little activity had taken place.

Kevin asked if members had any topics for future main programs. A few topics were brought up and discussed.

Kevin talked about last months events and In particular the Ozaukee County Fair. Based on members responses there were telescopes there each evening. The handout table that was left at the site throughout the fair seemed to

solve some of the problems encountered by members at previous county fairs, of not having information to pass out to interested people. It was also mentioned that more material could have been used.

Kevin covered the upcoming events scheduled for August, and encouraged all members to participate.

The business meeting was closed by Kevin Bert at 8:05 p.m. (Due to bugs)

Respectfully submitted,
Kevin Bert, secretary

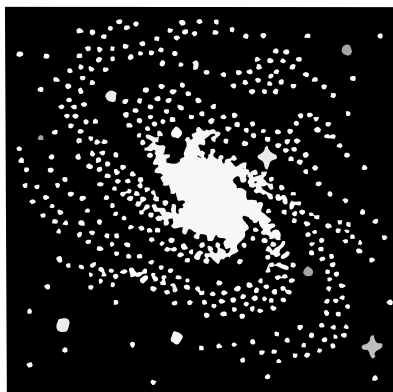
(WOODS from page 1)

action and Charlotte, her 4.5" Newtonian. We were fortunate to have two great nights. The sky is very dark compared to what I am use to seeing. So we tried to take advantage of it. Dew was beginning to be a problem early in the evening. Blowers and zappers were out in full force as the temperature kept on dropping. Jeff constantly monitored his secondary mirror for dew and applied heat as needed. I am glad I brought along an extra jacket. Jeff even broke down and slipped pants over his shorts. I found out the next day that it was only in the forties!

The large number of meteors from the Perseid shower was constantly drawing my attention to the sky. It was only a day or so after the peak. Many were brilliant and received the customary ohh's and ahh's from the field.

On Friday night Jeff had some power problems with his 22" that forced us to manually move the scope. These were easily corrected the following night. It is truly amazing how much you can see in a large scope under dark skies. The more familiar objects are spectacular to say the least, but the unusual objects come within reach. Jeff dialed up

Stephan's Quintet in Perseus. It is great to have a scope that big track so as to allow the comfortable use of a higher power to bring out detail. It was a bit of a strain but all the members were visible. Earlier in the day we came up with a list of potential targets from a new catalogue that I recently purchased called Celestial Harvest. One of the objects that sticks in my mind is Webb's Proto-Planetary. It displays an unusual double lobed structure with the brightest



area appearing like a bloated star shining through a cloud of dust.

There were a number of interesting telescopes in the field, both home made and commercial. A group of Obsession scopes were there with

the largest being a 25". On the other end of the Aperture spectrum was An Auto-star, and a 60 mm refractor that a beginner had brought. Looking back I regret not spending more time looking through other scopes. At the time it seemed tough because I was getting the best show through Jeff's 22".

The Observatory is a beautiful structure that has two domes which house large telescopes and it has a spacious central gathering area with restrooms. A midnight snack was laid out there and very much appreciated to break up the evenings viewing on both nights. A vendors area and flea market were set up inside during the day.

A short walking distance away talks were given at the nature center's lecture area during the day. Jeff had a great presentation on collimation of Newtonian telescopes that caught a lot of peoples attention. It was based on the Tecktron tools that Jeff has found invaluable for adjustments on his fast scope. He went the extra mile and helped several people adjust collimation on their own scopes before dark.

All the meals were great. They catered to the observers by having breakfast

(See WOODS on page 4)

(*Hopping* from page 1)

number of degrees in the angular field of view. For instance, if it takes 6 minutes for a star to drift across the field, the angular field of view is $6 / 4 = 1.5^\circ$, or a one-and-a-half degree field of view.

This method works with any type of telescope and any combination of eyepieces. If you write down the FOV for all your eyepiece combinations, you'll probably only need to make this calculation once. Moreover, some observers cut out a set of circles in pieces of

clear plastic to use as ready-made FOV scales with their charts.

Now that you know the FOV in your telescope, you can check your sky atlas to find a bright star near the object of your search. (You *do* have a good set of star charts, don't you?) Using the scale of your chart as a guide, determine how far the object lies from your starting point. Convert this to however many fields you have to move in order to be in the vicinity of the object. Then go for it!

Astronomy 101

By Kevin Bert



The September 101 topic will be "A Test Run Of Starry Night" by Jeff Setzer. You will get a chance to look at this popular computer program to see some of its highlights. This is one of the most realistic of the programs that Jeff will be demonstrating over the next few months.

A drawing for a free copy of the program will be given away after his presentation.

The highlighted constellation will be Vulpecula.

From The Editor

By Kevin Bert

Greetings fellow star gazers. Or should I say mosquito swatters. I am sure that I am not the only person that has been having problems with those pests. It must be the amount of rain that we have been getting. Well there is one sure fire way to minimize their effect. That is to order a nice cool breezy night. Unfortunately that is out of our control. But that kind of weather will be here sooner than you think. As a preview of cool weather I was fortunate to have some during the Northwoods Starfest. Bugs were no real problem on both of the clear nights. The lead article this month will tell about some of the things you missed.

The second article describes a helpful trick that star hoppers use to hunt down deep sky objects. It takes a little time to do but it is well worth the time.

President Jeff Setzer will intermix some demonstrations of popular astronomical computer programs into the Astronomy 101 programs. Due to the large amount of material to cover for just one class, Jeff preferred to use a separate class for each program. Every other month or so you



will be able to look forward to seeing some new software.

As a reminder I will host a members night at my home on Saturday September 11th. I live north of Grafton between Ulao Parkway and Sauk road on Ridgewood road. See the back of the newsletter for the address. Come any time after 7:00 p.m. I will not have a cloud date this year so if the weather is not the best you are still invited to come and talk astronomy. I will follow Mike Matthies idea of gathering around a fire outside where we can socialize.

CURRENT CLACK

For Sale !

Celestron C4.5 Newtonian Reflector made in Japan by Vixen Optical Industries. It has a 4.5" primary mirror with a 7.9 focal ratio, a machined metal rack & pinion 1.25 inch focuser. This tube assembly is in very good condition and only eighteen months old. It is mounted on a brand new Apogee German style equatorial mount with setting circles, slow motion controls, polar alignment bore scope, split tube mounting rings with a camera piggyback mount, and a sturdy adjustable height aluminum tripod. Included are 10mm & 25mm Plossl eyepieces, instructions, and a new never opened Celestron's "The Sky" Level 1 software program.

Price \$400 complete.

Call Dennis Bullock at 414-723-6747 (Elkhorn, WI) for more information.

New Date Added

Please mark your calendars. Mike Matthies informed me that he would like to host a members night at his home on Saturday, October 2nd. Mike's home is located on the north west side of Grafton, 1985 Maple road a little south of Pleasant Valley Road. There is no cloud date for this event. Mike says that we should come over anyway. He would have a large bonfire setting to talk astronomy. Call Mike at 375-0280 if you need further information.

1998 OFFICERS

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(WOODS from page 2)

close to noon for late sleepers that stayed up most of the night.

Attendance was close to the 130 mark. Based on the people that I talked with over the course of the event, there was a good mix of experienced veteran observers and beginners. A family from England traveled the greatest distance. They try to take a vacation every year at the same time to include the Starfest in their activities. I was pleased to see the amount of club participation in running things. A lot of that credit goes to Ray and Ruth Forsgren. Members from the Chippewa Valley Astronomical Society did one heck of a job.

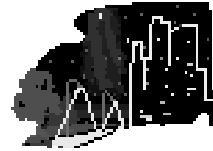
I believe a lot of our members would enjoy a weekend attending a star party like this. We do have a number of new members that would find it an entertaining and learning experience. You are not committed to a longer week like some of the other larger parties, only a weekend. I hope all members would consider it for next year.

SPECTRUM

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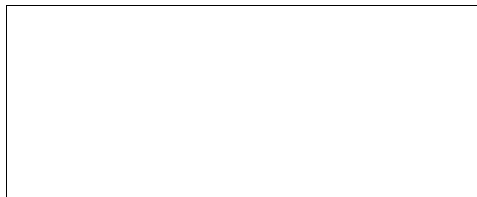
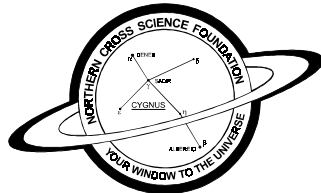
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