

SPECTRUM

Northern Cross Science Foundation Newsletter

June 1998

LOOKING UP

June 4 Thursday
Astronomy 101
7:00 PM
General Meeting
7:45 PM
Carlson Tool & Mfg.

June 6 Saturday
Public Viewing
9:00 PM
Riverside Park

June 11 Thursday
Panarusky telescope
Construction Meeting
7:00 PM
Carlson Tool & Mfg.

June 17 Wednesday
Board Of Directors
7:30 PM
Jeff Setzer's House

June 19-21 Fri. – Sun.
WOW
Waupaca

June 27 Saturday
Aerospace Displays
at Airport
9:00 A.M. – 1:00 P.M.
West Bend

June 27 Saturday
Public Viewing
9:30 PM
Pike Lake State Park

The Night The Stars Danced

By Joyce Haussler

I looked forward to all the observing nights, but the night of November 8, 1991, was a special night. Our last public viewing night of the season was to be held tonight, as winters in Wisconsin get pretty cold. My 6" scope would be packed away for the winter, and undergo some minor adjustments. I was intent on making the most of this observing night.

Most of my observing equipment was already packed in the car. I used it frequently in the summer, and I just didn't bother to unpack it after each observing trip. I gathered up the remaining articles, and walked over to the car. As I walked out to the car, out of habit, I glanced up at the sky. I noticed two long skinny red bands in the east and west, diminishing as they crept higher in the sky. I made a mental note of it as I got in the car and left.

I needed to stop at work and pick up my paycheck, as long as it was on the way to the observatory anyway. I worked for a general contractor at the time and his house was in the country. When I arrived at the house, I glanced up at the sky as I got out of the car. I almost didn't believe what I saw. Looking to the North, above

the horizon, I saw the telltale signs of the Aurora Borealis. Wavy curtains of color gracefully danced in the northern section of sky. I gasped silently as I watched the sky dance. I thought to myself that we might not be doing much deep sky observing tonight, but we'd have plenty to watch anyway. I was torn between leaving and driving quickly to the observatory, which was twenty minutes away, or staying to watch nature's show. I grabbed my paycheck quickly and dashed back to the car and sped off.

My theory was that I could drive faster on the back roads, hence I'd get there faster, and if I felt I was missing too much, I could always pull the car over. I did manage to pull over twice, each time hopping back in the car to race down the road.

I finally got to our club observatory, to find several of our club members already there. Kevin Bert, Jeff Setzer, Harold Rogers and several others were already there. One glance above showed the increased intensity of the Northern Lights. Hal commented that he hoped to do some sky observing. We joined as a group on the lawn, and first stood facing the north. We soon discovered that this aurora was more intense than

(See **Danced** on page 2)

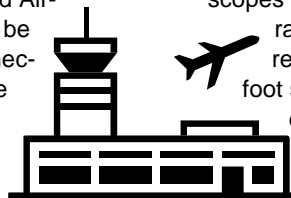
West Bend E.A.A Event

By Kevin Bert

The Northern Cross has been asked by members of the West Bend chapter of the E.A.A. to participate in their second annual Fly-In at the West Bend Airport on June 27th. You might be asking yourself just what connection there might be for us to be involved. Well the theme is AEROSPACE and the Northern Cross will focus on the space end of it. The Triple I Rocket club will too. They work with those high power rockets and will display equip-

ment from 10:00 A.m.-2:00 P.M. and have a static test firing of a rocket engine at noon. We will be able to set up telescopes to view the sun if it is clear. Arrangements have been made to reserve an area for us, inside a 75 foot square hanger along the south end. Here we can display telescopes along with equipment to build them, and our clubs liquid fuel (E.A.A from page 1) rocket engine. The engine was a project

(See **E.A.A** on page 2)



May Minutes

The May meeting of the Northern Cross Science Foundation was held in the conference room of Carlson Tool & Mfg. in Cedarburg. The Astronomy 101 class preceded the business meeting.

President Jeff Setzer opened the meeting at 8:15 p.m. to over 20 people. Jeff thanked all those who helped on the National Astronomy Day Open House. Even though the weather did not cooperate, close to 325 people attended the event excluding club members. Jeff



further went on and commented on the fantastic effort that the Nichols had given for the event. The experience gained in helping with this event should make it easier to plan and run future events.

Brad Plaumann gave the financial transactions and final status of the checking and savings accounts.

Kevin Bert gave a status report on the Panarusky 20" telescope and commented that there will be meetings coming up to discuss and answer questions concerning

mechanical and financial considerations for the scope.

A group of names were taken to work on the NCSF Observatory some weekend in the near future.

A rundown of the upcoming activities that the NCSF was involved with was given. A show of hands was taken to see who had considered attending.

The business meeting was closed by Jeff Setzer at 8:55 p.m.

Respectfully submitted,
Kevin Bert, secretary

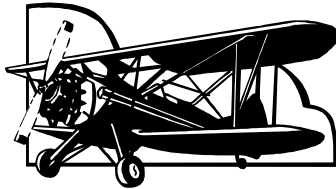
started by Ray Dausman many years ago and made some very impressive static test firings.

This was one of the other science interests the club perused for a time.

Free plane rides for kids will take

place in the morning with a special workshop for kids in the afternoon.

The chapter's members will show off



their projects at 11:00 A.M. Various talks relating to airplanes and ballooning will be conducted throughout this 8:00 A.M. to 5:00 P.M. event. Look to the newspapers for a detailed schedule of events.

A number of special airplanes will be there. A Ford Tri-motor built in the 1930's, a T-28

Trainer, and a vary unusual plane that was a national award winner in a particular lifting competition. This radio controlled plane with a 20 foot

wingspan weighs only 77 Lbs.

There is no charge to attend. Almost

1000 people attended last year. I hope you will try to make it.

There is a variety of neat things to see at this years event. If you plan on bringing equipment give me a call at 375-2239.



(**Danced** from page 1)

most, as we could see curtains in the east and west and when we looked over head, we saw them heading to the south as well. There was so much to see, we couldn't turn around quick enough to keep up with nature's show. If any person, unaware of what we were doing would drive by, they would probably have thought we were doing a rain dance.

Oh, and what color! Greens, whites, magentas and purples, in all shades. I had seen aurora before, and had seen the greens and some white, but never sure pretty reds and purples. We continued watching, as excited as children turned loose in a candy store. Silently I took a minute to thank God for allowing me to see first hand some of his beautiful creation. The curtains slowed down and vanished slowly, much to our dismay. We stood there excitedly chattering all at once, then someone went to get the club's logbook from the observatory. We began entering our

thoughts in the book trying to capture the feelings and excitement that we felt. Someone glanced up at the sky again, and told us that the aurora had returned.

We clamored back out to the yard, to watch another show. They were indeed back, and seemed to be even more intense than the last burst. Like last time we couldn't sit in one place and watch. We stood and rotated our heads and bodies to which ever direction provided the best show. I remember several times pointing happily to a section of the sky that I thought looked pretty, and telling everyone else to look there. Curtains and waves of color now extended far into the south. How I wished for eyes on the back of my head! This outburst seemed to last a long time before dying down again. After this one was over, I again said a silent prayer. It is not often one gets to witness nature at its best.

Once again we went into the logbook, trying to capture the memories as best as we could. We sat in our lawn

chairs rubbing our sore necks, and tried to rest a little. Could this night get any more exciting? I didn't think so. We kept our eyes on the sky, and over a half an hour had passed. I was thinking our show was finished when we watched some ghostly white arcs start creeping from the north across the sky. "They are all white, There is no color." I commented. "Yeah, and they seem to sort of pulsate." Kevin added. And they did. In the last two displays the curtains moved slowly across the sky. These shot across they sky and disappeared as quickly as they came. And there was no hint of color other than white. The sky was changing faster now than what our eyes could see. It looked like

(**Danced** from page #)

the majority of the activity was happening straight overhead. That's when I saw it. For just a brief second, I saw the image of a snow white dove, framed with rays. I gasped then yelled out to my friends to look straight over-

(See **Danced** on page 5)

25th Annual National Astronomy Day

By Jeff Setzer

This year, National Astronomy Day occurred on May 2. The weather was pretty bad, but it was still a success. We had more than 300 people come out, and people even came after it was raining, which was past 11:00 p.m. ! We gave those brave souls personal observatory tours and invited them to partake in the beverages we were enjoying in the garage.

Everything took place at the W.J.



Nichols Observatory, which is in Richfield, WI. Nick and Jeannine did a fantastic job of hosting this event, going light-years above and beyond the call of duty. Their hospitality truly made this event a pleasure for everyone, and in spite of the poor weather, we all had a great time! You can find more

pictures of Astronomy Day at the NCSF web site.

<http://www.gxsc.com/ncsf>



Our host, Nick Nichols, discussing telescopes with a guest.



Several NCSF members and friends brought their own telescopes for the daytime display under the large tent. The welcome tent is centered in the photo. Even though the skies were overcast, it was still fun to take a tour of the W.J. Nichols Observatory.



Al Steinberg shows a father and his son how to point their new telescope, while Rod Nabholz inspects their eyepieces.

NCRAL Convention 1998

By Jeff Setzer

The 1998 NCRAL Convention was held on Friday, May 8 and Saturday, May 9. It was held at the Adventureland Inn in Altoona, Iowa, which is an eastern suburb of Des Moines.

I left my house at 4:00pm on Friday, and didn't get to the hotel until after 10:00pm that same night. There was a star party scheduled for that evening, at the Ashton Observatory of the Des Moines Astronomical Society. But, since it was cloudy, late, and nearly a full moon, I just stayed in and caught the last half of Star trek First Contact on HBO.

Saturday morning, I registered for the convention and went to the first talk. Professor Anthony Marsden was speaking on cool supergiant stars. Af-

terward, I went out to the AL Sales table. I picked up a coffee mug, a T-shirt, a few emblems, an "I'd Rather See Starlight Than Streetlights" bumpersticker, and the new Messier club book called "The Messier Objects: A Beginner's Guide." This is more than an update of the old book; it's really a completely new publication. Written by Kathy Machin and Sue Wheatley, the book supplies more up-to-date positions and background information on the nature of the various Messier objects. All of the observing descriptions are from the logs of the two co-authors, while photographs, drawings, and CCD images have been supplied by a number of amateur astronomers. As a matter of fact, you can check out the handi-

work of NCSF member Rick Kazmier-ski on pages 14, 15, and 17. I was also looking for the Herschel II book, but they were backordered and only had a display copy for me to look through. The best thing about the book is that it's spiral-bound, so it will truly lay flat in the field. And it's got a lot of pages! REGIONAL COUNCIL MEETING Right after lunch, the NCRAL had their Regional Council Meeting. Bert Stevens, the Chair of the NCRAL, presided over the meeting. After the roll call of member society representatives, they

(*NCRAL* from page 3) got on with the reports from Secretary/Treasurer Steve Peters: The region has gained 3 new societies

(See *NCRAL* on page 4)

(Lake County Astronomical Society, Amateur Astronomers Of Southern Illinois and one other that I didn't catch). We also had 1 society drop membership (Northwest Suburban Astronomers). Our current balance is \$3,379.93...which puts us, once again, as one of the few regions that actually has a financial surplus.

Two people from the Cedar Amateur Astronomers of Cedar Rapids, IA made a presentation as part of their club's bid to host the 1999 NCRAL Convention. In addition to the standard star-party and convention activities, they also talked about two special tours: the first to one of the dishes of the VLBA, and the second to Torus Precision Optical. Both of these places are near the Cedar Rapids area.

Frank Roldan and another member of the La Crosse Astronomical Society of La Crosse, WI made a presentation as part of their club's bid to host the 2000 NCRAL Convention. Their presentation concentrated on UW-La Crosse and area astronomy vendors.

Dave Bactel, our Regional Representative to the National Council, gave his

report on the 1997 National Convention in Copper Mountain, CO:

- membership is stable
- the League's financial problems have abated with the new dues structure
- we have \$62,000 in the Trust Fund
- the Herschel II observing program is becoming very popular
- Jackie Wade (member of the Astronomical Society of Kansas City and current Astronomical League Treasurer) was elected as a new trust fund trustee

Bert Stevens gave an update on our NCRAL newsletter, Northern Lights. They currently mail 500 copies per issue. Some of the ideas that have been bandied about include photocopying instead of printing, an annual color issue, and an on-line version of the newsletter.

Frank Roldan, Elections Coordinator presented the slate for the 1998 officers:

- chair: George McCourt (Neville Public Museum Astronomical Society in Green Bay, WI)
- Don DeWitt: vice-chair (Neville Public Museum Astronomical Society in Green Bay, WI)

• Steve Peters: sec/treas (didn't catch the society he was from)
It was noted that the Regional Representative position is a 3-year term and Dave Bachtel still had time left on his term. There were no nominations from the floor, and all of the people on the slate were elected by unanimous ballot.

Bert Stevens called for votes on future convention sites. The Cedar Rapids, IA convention site was approved for 1999, and the La Crosse, WI convention site was approved for 2000.

Bert Stevens gave some closing comments & thanks as outgoing NCRAL Chair.
Oh yeah...there was another reason I made the trek to Iowa. (**See below**)

A 22" f/4.1 Starmaster Dobsonian. Excellent Pegasus optics. QSP coatings: the primary has 96% reflectivity, and the 3.5" mi. a. secondary has 99% Endurobrite.

This thing also tracks, with the soon-to-be-announced Sky Tracker system. It's a new system from Sky Engineering, the same company that makes Sky Commander digital setting circles. In fact, the Sky Tracker uses the Sky Commander as it's "brain." The way it's mounted on the Starmaster telescope, the drives can be disengaged with the flick of two levers (one for each drive).

Then you can move the scope around yourself, and because the Sky Commander is still active, it still knows where you are at all times. So you can push the scope to an object yourself, and just engage the drives to let it track You can also "power-slew"



I bought a New Telescope there Too !

the scope around with four buttons on the hand controller.

That's me and my new telescope, set up in my driveway. I wanted to put it together right away when I got home, to

make sure the electronics all worked. You see, Rick Singmaster and I were going over the scope in the parking lot of my hotel in Iowa. About 5 minutes after the scope was set up, a cloud came out of nowhere and it started to rain. Rick and I took the scope down and put it into my van. By the time we got ourselves into my van, we were both literally soaked! I was very worried, even though Rick assured me that the scope had gotten much more wet with dew on several occasions. It rained a while longer, and when it

stopped, it was time for Rick to go home. So that's why I was a bit nervous and set the scope up right away when I got home..."just to make sure." Everything looks A-OK.

The Panarusky Telescope

By Kevin Bert

Things have been progressing slowly but surely on the Panarusky 20" telescope. I felt that a progress report was needed to keep all the members updated on the latest advancements. All of the main mechanical components are in hand while the main optics are being completed at Nova Optics. I spent some time last week assembling as many of the components of the tube as possible. Now you can get a feel for the full size of the scope. If you haven't seen the scope lately be sure to at the next meeting. It is **very impressive!**

We are at a point where we need to

split our efforts between the mechanical aspects and construction of the 20" scope and the fundraising/site selection. A meeting on Thursday, June 11th will address some of the questions that need to be answered regarding the scopes construction. For an example, I have a person at Carlson Tool who volunteered to paint the telescope. We need to select colors. We will need to decide on the type of coating the finished mirror will get. We also need to decide what parts we will anodize.

With the scope in a photogenic condition we are ready to start this next

phase of fundraising for the project. Our last fundraising effort spearheaded by Rudy Zarling is nearing completion. It looks to be successful in getting funds to get the telescope operational. For the next phase the general plan is to first generate a lot of publicity for the project by inviting newspapers to see and photograph the scope, meet the people involved with it and tell the story of how it came to be. We hope to set a date for a special meeting to discuss what members of the press we will contact, set a date for them to see the scope and

(see **Panarusky** on page 6)

Astronomy 101

By Kevin Bert

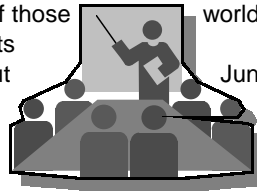
The June meeting 101 topic will be "Preparing for a Nights Observing." If you only have binoculars and are hoping for a clear evening to spend a few minutes viewing some preparation is needed. As you accumulate more equipment, more planning is involved. This will be a rundown on the steps

and considerations that need to be made for a successful nights viewing. You will always have a few of those last minute impromptu nights where you drag the scope out to show the neighbor or relatives, the moon or a few other popular objects.

That's ok, but after a while you will want to challenge yourself and explore new worlds.

The constellation highlighted for June will be Lyra.

The July 101 topic will be announced in the next Spectrum.



From The Editor

By Kevin Bert

Things were running smooth as I neared completion of this issue of Spectrum. Then the unexpected. My monitor flashes a bright light and then goes black. I was not able to revive it and had to send it back to get it replaced. Luckily it was still under warranty. I was able to borrow a replacement monitor from at work to finish publish-



ing.

I tried to add some pictures to some of the articles to see how they would reproduce. I had a lot of information for this issue so I added extra pages. Don't expect this every month though.

Joyce Haussler has the cover article in this issue which she sent to Kalmbach's observing competition contest. The

August Astronomy Magazine will have the three best articles.

You should find a membership card inside this issue if you don't already have one.

Jeff Setzer will be in charge of the main program that follows the Astronomy 101 class. Does 22" Starmaster sound familiar?

head. Then, just as quickly as the image appeared it was replaced by more flickers of white. Once again, I thanked God for allowing me to watch this rare display of nature.

This display was more brief than the other two, but equally as exciting. After this display died down, we updated our log book again. I found out that several of my friends also saw the dove. I stopped to check the time, and could not believe it was after 1 a.m. Sud-

denly, I realized I was tired, but if I left now, I wasn't sure what else I would be missing. We waited for quite some time, but there were no more aurora to light up the sky. I felt so happy; almost drunk. I was just thrilled to be an observer in tonight's show. A tired group of astronomers finally packed up and left around 2 a.m. It was after 2:30 a.m. while I was still in the country driving home, that I saw them.... again. By now I was just too tired, and

wanted to get to bed. But I smiled to myself thinking of all the wonderful memories I would have from this evening.

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(Panarusky from page 5)

decide what message we want them to pass on in their articles at the June meeting.

Rod Nabholz will head up and develop a presentation, incorporating some photos of the telescope, to bring to some major local companies with the hope of getting large contributions for a building or buildings to support the 20" scope and club activities. Some building issues first need to be addressed.

As part of the site selection we will peruse the Pike Lake and Riveredge Nature Center areas first. Other sites will be considered if these two sites don't pan out.

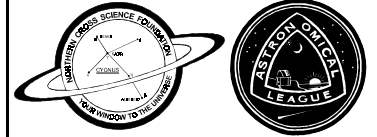
If there is a group you would like to participate in look for some of the special meetings that will be coming up over the next months. I will continue to post them in the Spectrum as I am made aware of them.



Check out our great site
On the World Wide Web
<http://www.gxsc.com/ncsf>

SPECTRUM

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