

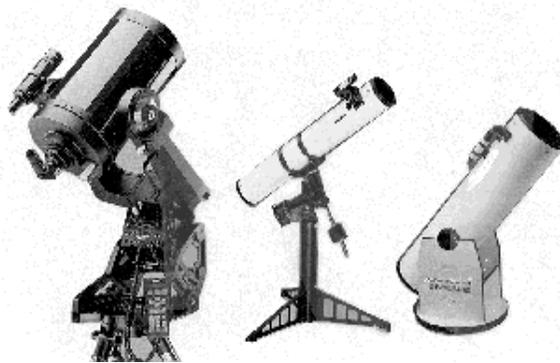
Saskatoon Skies

**The Newsletter of the Saskatoon Centre
of the Royal Astronomical Society of Canada**

Volume 31, Number 05

May 2000

It's BYO Telescope Night!



**Bring your scope or binoculars, and give us a talk
about how you built it or why you bought it!**

SASKATOON'S TELESCOPE SHOW AND TELL

Remember - the General Meeting is at the Forestry Farm

May 15, 2000 - 7:00 p.m. to 9:00 p.m.

NOTE THE EARLY START TIME

RASC Calendar Happenings

Date (2000)	Event	Contact	Telephone
May 15	General Meeting - BYO Telescope! 7pm	Les Dickson	249-1091
May 22	Noctilucent Cloud Season Begins	Rick Huziak	665-3392
May 27	Sleaford Observatory Work Day	Bill Hydomako	384-4781
Jun. 19	General Meeting - Room 8313	Les Dickson	249-1091
Jun 30 - Jul 2	General Assembly, Winnipeg	Ken Noesgaard	931-4755
Jul 29 - Aug 6	Mt. Kobau Star Party, Osoyos, BC	Rick Huziak	665-3392
Aug. 5	Friends of Sleaford Open House	Rick Huziak	665-3392
Aug 25 - 27	Sask. Summer Star Party 2000, Cypress	Les Dickson	249-1091
Aug 31 -Sep 3	Alberta Star Party, Caroline, AB	Rick Huziak	665-3392

Sky Buys and Mirror Sells

The Saskatoon Centre's Swap and Sale Page!

KIND OF LOST - I misplaced or loaned out my Lumicon OIII filter to someone and I'd like it back. Please own up. This means YOU! - Darrell Chatfield 374-9278.

For Sale: Bushnell/Jason Model 519, Deep Space Series 675x telescope with tripod. Retail value \$179.99. Brand new and unused. If anyone would like to look at it they are welcome to call me at home 373-4914 or at work 975-5336 and make arrangements. \$150 obo. Call Linda Cunningham <CUNNINGHAML@EM.AGR.CA>

For Sale: 1 1/4" eyepieces: Edscorp 25mm Orthoscopic, 21mm - 3 element "Siebert"(Kellner?), Meade 12mm MA, Celestron 6mm Orthoscopic. \$30 each. Call Ken Noesgaard at 931-4755 or e-mail <ken.noesgaard@siemens.ca>.

For Sale: Brass-finished Carrying Trunk for C-8 or C11, Kellner 9mm eyepiece \$40.00, Antares 10mm Plossl eyepiece \$100.00. Call Darrell Chatfield for pricing and trials. tel. 374-9278.

For Sale: 2" Lumicon Deep Sky (Light Pollution) Filter. \$200.00 obo. Call Andrew Krochko at 955-1543.

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Collate - Friesens, Christie, Dicksons, Ferguson, Essar & Krochko



IN THIS ISSUE

Calendar of Events & Sky Buys and Mirror Sells	2
Modifying a Newtonian - <i>by Andrew Krochko</i>	4
Gamma Virginis - Binary on Cruise Mode - <i>by Murray D. Paulson, Edmonton Centre</i>	5
Observing Deep Sky from the City - <i>by Andrew Krochko</i>	6
The 14th Annual Alberta Star Party	7
The Planetary Report for May 2000 - <i>by Murray D. Paulson, Edmonton Centre</i>	8
Astronomy Day Results - <i>by Rick Huziak</i>	9
The Messier, FNGC, Herschel & Binoc Page - <i>by Rick Huziak</i>	11
The Sleaford Page - <i>by Rick Huziak</i>	13
Lorne Jensen's Messiers - <i>in Lorne's Words</i>	14
Minutes of the April 17 Executive Meeting - <i>by Al Hartridge</i>	15
Why the Astro-Chicken Crossed the Cosmic Highway	15
Minutes of the April 17 General Meeting - <i>by Al Hartridge</i>	16
The Conjunction of a Lifetime - <i>by Andrew Krochko</i>	16

Modifying a Newtonian

by Andrew Krochko <andrew.krochko@sk.sympatico.ca>

I have had a 6"f/5 Schmidt-Newtonian since I was about 12 years old. Although this telescope has served me well it became apparent that it was not performing as it should. Last March I tried to collimate it but I shifted the corrector plate. After this happened I decided I was going to modify it until it was performing how a typical 6"f/5 should. The major problems were that it was hard to collimate, had stray light problems, had an undersize secondary mirror, had a lot of fiddley screws, the corrector plate dewed up easily and a sagging mirror. I replaced many of the screws with wing nuts or I epoxied nuts into the tube so I could undo them without putting a wrench into the tube. I also made a cardboard dew cap. Both the sagging mirror and the undersize secondary were

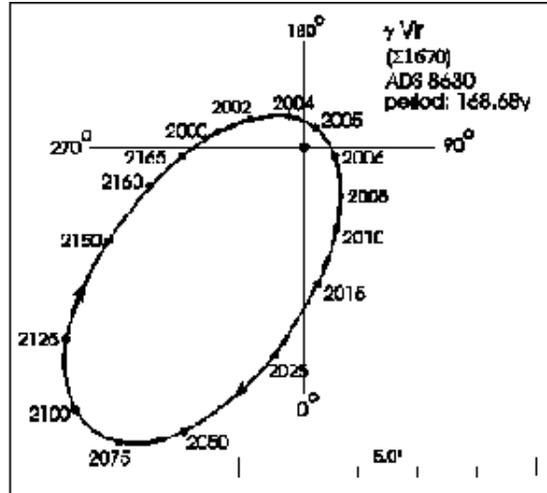
solved in one operation. I moved the mirror back about a 1" in its cell thus making the telescope a true 6" and I mounted it on 9 blobs of silicone instead of 3. Software for calculating how much a mirror sags can be found at <<http://www.eecg.toronto.edu/~lewis/plop>>.

The problem I agonized over the most was the stray light control. All the stray light control that most Newtonians have is a coat of flat black paint on the inside of the tube. In my case it wasn't very black at all. When you change the magnification the field should darken significantly but this didn't happen. Everything except bright stars and planets disappeared into an orange glow. After testing many materials and reading many peoples opinions I came to these conclusions. The best paint is *Krylon Ultra Flat Black*, available at Revelstoke or Superstore. If you don't like spraying *Benjamin Moore Interior/Exterior Wrought Iron Black* is also very good. Black velvet is the best easily available material though, I got mine as triple velvet from Fabricland. It is blacker than anything I tested at all angles including painted sandpaper and Sawdust. The only exception is that velvet will scatter light coming in at low angles back to its source, but only from one direction. This disadvantage can be avoided by careful design. To avoid shedding I coated the back of the velvet with spray adhesive, this didn't affect its light absorbing properties but helps hold the fibers in. I attached it to the inside of my focuser with Interior/Exterior Carpet tape. It was easy to install and I don't expect it to ever come out. Before closing the tube up I took a lint roller to the velvet to get rid of dust and loose fibers. I had a few problems with shedding in the first couple weeks after installing it but that is now gone.

The difference has been dramatic! My telescope is easier to use than ever and is performing the best it ever has! Even my mom noticed the difference from before. The field now darkens when high power is used allowing faint objects to be seen and the telescope is easy to keep in collimation. There are no longer ghosts wherever I look away from the moon. If you want to modify your telescope like I did don't hesitate to contact me. If you want to darken your tube, covering the whole inside with velvet is unnecessary, only the places the eyepiece can see are necessary. This means around the primary, across from the focuser and the inside of the focuser. This project has made me wonder how many telescope users don't know that their telescopes are performing as well as they should.

Gamma Virginis - Binary on Cruise Mode

by Murray D. Paulson, Edmonton Centre



Much of the sky beyond the solar system is static. Except for the rhythms of variable stars, not much happens over human time scales. There are a few exceptions to this but you need to crank up the magnification on your telescope and go hunting for close double stars. Gamma Virginis is a fine example of one that you can see a significant change over the next few years. In 1990, the pair had a separation of 2.7" and by 2006, closest approach, the pair will be an unresolvable 0.37".

Gamma Virginis, Porrima, is 39 light years away and the shines at magnitude 2.7 just below the Virgo cluster of galaxies. It consists of a 3.48, 3.50 magnitude pair of whitish stars that take 168.8 years to complete an orbit. Their orbit is elliptical with an eccentricity of .88 and the plane of it is inclined with respect to us. As two stars come together you will see a significant change in their position angle, (P.A.) This is the angle you measure with respect to the primary from the north celestial pole around clockwise to the secondary component. In 1990, they had a P.A. of 285 degrees, this year it is 260 degrees and by 2005 it will be 170 degrees. The table below shows the data on the separation over the next decade. As you can see, by 2004, it is going to be very difficult to resolve the pair and it will be below the capabilities of most amateur scopes from 2003 to 2007.

How to observe and record the pair: If you are interested in recording the double star's motion for your records, you can do so by drawing the field stars around it in a high power field, and make an accurate estimate of where the line joining the stars points to in the field, then draw it on to the drawing. Next year you do the same and you might be able to notice the change. Over the years you will see a significant changes in the spacing and the position angle. There is a 9th magnitude star 8 arc minutes away at a position angle of 189.5 degrees with respect to gamma Virginis. Remember that SCT's and refractors with diagonal mirrors have left and right reversed, but the up and down are preserved. Newtonians have an inverted image that is just rotated 180 degrees.

Some other rapidly changing binaries are xi Ursa Majoris, 48 Cassiopeiae, and zeta Hercules. There are many others and they will provide the material of a future article.

P.S. I found a very good list of double stars on the web site www.dibonsmith.com/orbits.htm. Check it out!

Date	sep	PA
1990	2.7"	285
1995	2.05"	275
2000	1.5"	260
Date	sep	PA
2002	1.05"	245
2004	0.6"	207
2005	0.37"	146
Date	sep	PA
2006	0.55"	72
2008	1.05"	36
2010	1.4"	20

Observing Deep Sky from the City

by Andrew Krochko

It is a great tragedy that the perpetual sky glow in the cities we live in hides some of the most beautiful objects in the universe. Many galaxies and diffuse nebula are turned into barely visible glows no matter what size of instrument is used. Many objects have a surface brightness not much higher than the natural sky background. When viewed from cities, many of these objects are masked by a background that is 10 or even 100 times.

Does this mean that we can't do deep sky work from the city? No it doesn't, even though

the natural glory of the deep sky is gone the challenge is still there and with good stray light control a telescope won't give up any more than it has to. High surface brightness objects like planetary nebula and some galaxies like M82 and M94 don't give up nearly as much to the city lights as lower surface brightness objects do. With modern narrow-band filters the view of certain objects like diffuse nebula and planetary nebula can even be better than the unfiltered view from a dark site. I just received a Lumicon UHC(ultra high contrast) filter that I can't wait to try out. Just be warned that these filters only work on diffuse and planetary nebula.

M105 is a bright elliptical galaxy in Leo, it is accompanied by two companions, NGC 3384, another elliptical and NGC 3389, a spiral. This group has two distant companions as well, M95 and M96 which form a beautiful pair. All these galaxies are believed to be associated in space. I decided I should add these galaxies to my list of Messier objects so I took out my 6" telescope one night and carefully star hopped to the field with M105 in it. At 24x I could see M105, NGC3384 and M95/M96 all in the same field! M105 and NGC 3384 were just fuzzy stars and M95 and M96 were small smudges. Boosting the magnification to 69x really brought out all the galaxies except NGC 3389 which I knew was around there somewhere but not exactly where. After enjoying this view I centered on M105 at 119x and started to draw it and NGC 3384. While plotting faint field stars I suddenly glimpsed something big and very faint at the edge of my vision. Maybe this could be NGC 3389? I tried to see it again but couldn't so I started plotting more field stars. About 5 minutes later it happened again in the same place. After this happened two more times I decided to plot the position of my mystery object. 4 sightings in half an hour is not what I would call certain but I decided to give it a shot. I went inside and checked the Digital Sky Survey and found I had nailed the position of NGC 3389. This galaxy is magnitude 12.0, quite a challenge from the city and very close to the limit of what I can see with that telescope and those conditions. When I went back out it was clouding over so I never did get to draw M95 and M96!

Magnification is an important factor in deep sky observing. High magnification is important on small objects and small details because our eye's resolving power is reduced at low light levels. For bright objects our eyes resolving power can range from 1' for bright high contrast objects to 10' for bright low contrast objects. The full moon is 30' wide. For faint light levels though our eyes resolving power ranges from about 30' for faint high contrast objects to 6 degrees for faint low contrast objects. An excellent object for testing this on is the galaxy M82 in Ursa Major. It has several dark lanes crossing it. At 24x in my 6" the galaxy looked like a bright featureless streak. The biggest dark lane would appear about 10' across in eyepiece, the same separation as Mizar and Alcor but was invisible. At 119x this dark lane would appear about 50' across in the eyepiece and I was able to glimpse it. At 190x the lane would appear about a degree and a half across. At this magnification it was easy to hold it in view with averted vision and I could see

another dark lane and mottling across the whole galaxy. Despite the detail I could see at 190x the galaxy looked quite faint. I had to wear an observing hood to block stray light and dark adapt under the hood for about five minutes. It was only after doing this that I could see all the detail I did.

Deep sky objects can be observed from the city. It is still quite challenging and it is an excellent opportunity to build observing skills for your next trip to a dark site.

The 14h Annual Alberta Star Party

August 30 - September 4, 2000

The Eccles Range Observatory is in beautiful west central Alberta. We are looking forward to you joining us for some good times and great viewing under wonderfully clear skies.

Expert and amateur astronomers alike will find plenty to do. The superb skies allow for the deepest deep sky observations and astrophotography. The door prizes and swap table mean that you may leave the Alberta Star Party with more than just memories.

We invite you and your family to attend the 14h Annual Alberta Star Party. The star party is co-hosted by the Calgary and Edmonton Centres of the RASC, and we feel that you will be impressed by the dark and transparent skies. The moon is new, allowing for superb deep-sky observing. As always, participants may arrive early and stay late for no extra charge.

General Information: this is a no-frills campsite. There are two outhouses on site. The Town of Caroline is 5 km away. There is water and waste disposal there. Full trailer hook-ups and showers are available at a campsite just east of the town of Caroline. Other accommodations:

Caroline Hotel (403) 722-3000 Caroline Gateway Hotel (403) 722-3322

You are advised to make reservations well in advance.

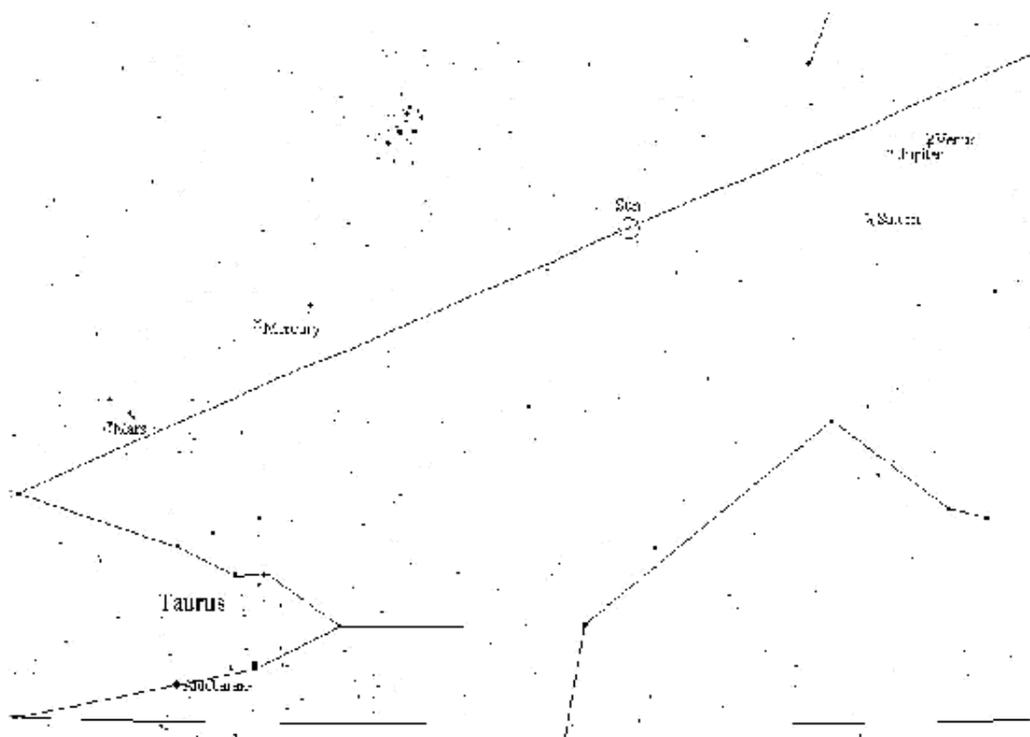
Parents are encouraged to organize events for the children. There are also attractions around Caroline and a little further out. Scenic views of the Foothills and Rocky Mountains can be had along the forestry Trunk Road west of Caroline. Burnt Stick Lake, about 25 km away, has birding and swimming. Sylvan lake is only 45 minutes away, and has water slides, a public beach, etc. There are also several nearby historic sites.

Programs: As in the past years, there will be informative talks. The coveted Binocular Observing Challenge and Telescope Observing pins return. There is also the Astro-Equipment Competition. If you've made anything astronomical recently, bring it along. You may just win an award for your workmanship or innovative design. There is also an Astrophotography contest.

For more information or to register: RASC Calgary Centre, c/o Dennis Goodman, 28 Southland Crescent SW, Calgary, AB, T2K 0K3. Fees can also be paid at the onsite registration desk from 2 to 6 p.m. daily. Single - \$20, Family - \$30. Pre-registration deadline is August 15.

The Planet Report for May 2000

by Murray D. Paulson, Edmonton Centre, <mpaulson@ecn.ab.ca>



I was wrong. It seems that there was in fact a very real precipitous disaster in this line up of the planets. They are all lined up on the **FAR SIDE** of the sun and for all intents and purposes, **unobservable!** Damn!!! I set up the dates for this grand conjunction in one of

my pieces of software and looked at the lineup from the birds eye view above the solar system. On May 10, we get a most convincing line up of the visible planets with the Earth on one side and the rest, Mercury, Venus, Mars, Jupiter and Saturn lined up like birds on a wire. Uranus and Neptune are at quadrature and it turns out that Pluto is near opposition, on the other end of the line up, on the Earth's side. No, I don't believe in any of this end of the world crap, just the end of the planet-observing season. Or is it?

It is unfortunate that the grouping is lost in the sun's glare, for it is extraordinary to see 5 planets in such a tight grouping covering less than a 20 degree span in the sky. In fact with a telescope, you can catch some of the close conjunctions during the daytime hours. According to ECU, on the morning of May 17th at 4 am, Jupiter and Venus pass within arc minutes of each other. By the time we get to see them at 6 am, they will be just more than 6 minutes of arc apart. Jupiter is at magnitude -2.0 and Venus is -3.9. Both are full disks on the far side of the sun with Jupiter at 32.86" and Venus is 9.71". The trick for this one is to be set up and polar aligned with a clear northeastern horizon before it gets light out and catch the pair in the twilight sky. This one is not a sweeper in your binoculars! They will be just less than 7 degrees from the Sun, so be very careful not to inadvertently swing the scope toward the sun. A white cane is not considered to be an observing aid. Saturn is just 1 1/2 degrees south and east of Jupiter and Venus, but at magnitude 1.0, it is going to be lost in the glare of the sky. A short while later on this morning, you can search out Mercury. It is at magnitude -1.4 and shows a 5.4" disk 9.5 degrees east of the sun. If this isn't enough, try for Mars, it is 2 1/2 degrees farther east and at magnitude 1.5 has a 3.7" disk! If you are going to attempt this, get a print out of the exact coordinates of the planets for this morning and polar align your scope on Polaris while it is still dark enough to see it. Another point is that you need to focus your telescope accurately on a star, infinity, and lock the focuser down! You will never find the planets if the focus is off. Then all you need is some clear skies to peek through. If there are any takers, where do you want to go for breakfast afterwards?

On June 10, Venus will pass into superior conjunction behind the sun. This is an exactly inverted view of what June 8, 2004 holds for us when Venus will transit the sun. No, you won't be able to see Venus as it drops behind the limb of the sun that day, but you can try and see how close you can follow Venus to the sun in the days beforehand and afterwards.

Clear skies and drop me a line to let me know how you made out.

Astronomy Day

By Rick Huziak

The mall display at the Mall at Circle and 8th on May 6th ended up being a fair success. We had about a dozen members participate in the display, which featured books, brochures, slides and telescopes. Telescopes featured this year were Al Hartridge's 6-inch Astrophysics refractor, Les & Ellen Dickson's 4.5-inch Meade reflector, Ken Noesgaard's square-box 8-inch Newtonian, Andrew Krochko's rebuilt 6-inch Schmidt-Newtonian and my 10-inch Dobsonian. Although the mall was not too busy since it was mostly a nice day, members were able to talk to many people about astronomy. The display lasted from 9:30 am to 5:00 pm.

Astronomy Day was followed by a now-standard Gastronomy supper for participants, where several pints and few shooters are rumoured to have been consumed.

That evening, we all reconvened to the Beaver Creek Conservation Area for a public starnight. The weather was a bit iffy to start, but it soon cleared. We had about 4 telescopes available to show the stars to whomever wandered by. Unfortunately, the turnout was very low, with only a dozen or so people attended. We still had fun showing them and the BCCA interpreter (Lis) the wonderful sky.

To close off the evening, Bill Hydromako, Ken Noesgaard and I stayed after the "crowd" left, and enjoyed the clear, dark skies until the wee hours of the morning. **Thank you to all the nameless people who helped out!** (Al, Jim, Barb, Bill, Andrew, Ken, Brian, Amy, Les, Ellen, Lorne, Kim and to those whose names I've missed - apologies!)

Notice of the General Meeting of the Saskatoon Centre

Monday, May 15, 2000 at 7:00 p.m.

Forestry Farm Main Hall

Presenting: *BYO Telescope*"

Telescopes our members have and use - and don't forget your binoculars!!

This meeting is open to everyone - members and non-members. There is no admission charge.

Note the change in venue for this month only - and the earlier time!

This month's general meeting is a special edition. We will be meeting at the auditorium at the Saskatoon Zoo and Forestry Farm Park at 7:00pm, not 7:30 as is usual. This is to accommodate the Park, which closes its gate at 9:00pm. As such, we will not be having our Executive meeting that night, nor a business meeting afterwards. We will be having a very informal meeting in which you can bring your own telescopes, binoculars, or even cameras, and look at everyone else's equipment. I would like people to be willing to talk 3 to 5 minutes about their equipment - pros and cons, what you have seen with it, would you buy one like it again, etc. We encourage everyone to come out and have a good time. I should mention here that the park and zoo have given us this venue FREE of CHARGE for the evening, asking only for a few astronomy presentations by club members over the next few months in exchange. So please, come out, enjoy yourselves, and let the park staff know that you appreciate their cooperation.

Just a reminder, there is a small parking fee charged during the summer, \$2 a car, and remember that the gates close at 9 p.m.

Noctilucent Cloud Season Begins

On May 22nd, NLC Season begins, when NLCs may be visible any night until August 15th. Observing NLCs is very easy - you need eyes and a clear north horizon. NLCs are clouds that are about 80 kilometers up in the atmosphere, composed of water ice with meteoric nuclei. They shine at night because the low solar angle will illuminate them over the earth's north pole - even at midnight! Anyone who wants to see become part of a world-wide program to monitor NLCs can phone Rick Huziak at 665-3392 for observing details.

Messier, FNGC, H-400 & Binoc Club

MESSIER CLUB

Certified at 110 Objects: Rick Huziak, Gord Sarty, Scott Alexander, Sandy Ferguson, Dale Jeffrey, Darrell Chatfield, Bob Christie.

Ken Noesgaard **Completed & Applied! 110**

Wade Selvig 64

Erich Keser 51

Stan Noble 28

Brent Gratias 26

Mike Stephens (NEW**) 25**

Lorne Jensen (NEW**) 25**

Ellen Kaye-Cheveldayoff 23

Les & Ellen Dickson 20

Brian Friesen 15

Andrew Krochko 12

Debbie Anderson 8

FINEST NGC CLUB

Certified at 110 Objects: Rick Huziak, Dale Jeffrey , Gordon Sarty

Darrell Chatfield **Completed & Applied! 110**

Scott Alexander 89

Ken Noesgaard 24

Sandy Ferguson 23

Ellen Kaye-Cheveldayoff 4

HERSCHEL 400 CLUB

Certified at 400 Objects: not yet!

Dale Jeffrey *WOW!!* 398

Rick Huziak 355

Darrell Chatfield 275

Gord Sarty 147

Scott Alexander 98

Ken Noesgaard 44

Sandy Ferguson 18

Chatfield BINOCULAR CERTIFICATE

Noel Enteries 0

Join the Messier, Finest NGC, H-400 & Binocular Club!

Observe all 110 Messier, 100 FNGC or 400 H-400, or 80 Binocular objects and earn your

CERTIFICATES!

The first 2 lists can be found in *the Observer's Handbook*. The Binocular List & Herschel 400 list will be available at each general meeting for 50 cents (covers photocopying) or **can be mailed out on request to distant members**. Each month I'll be posting updates.

Great News!

I've now added Darrell Chatfield's new Binocular Challenge list to this page. Earn your Binocular Certificate! This is a great opportunity for beginning observers and members without telescopes to begin observing with a goal in mind!

In 'regular' observing challenge news, great strides have been made by Dale Jeffrey in almost achieving the Herschel ultimate goal - but his last 2 objects won't rise for 2 or 3 months!

In the meantime, Ken Noesgaard and Darrel Chatfield continue to rack up the FNGC and Herschels.

New entry Lorne Jensen's drawing of Messiers appear elsewhere in this newsletter.

Send observing numbers to <huziak@SEDSsystems.ca>

U of S Observatory Hours

The U of S Observatory is open to the general public every Saturday evening in May through July from 9:30 pm to 11:30 pm. Admission is free. The observatory is located on campus, one block north of the Wiggins Avenue and College Drive entrance. On clear evenings visitors may look through the 6-inch refractor to the moon, star clusters and other exciting astronomical objects. For further information, phone the recorded Astronomy Information Line at 966-6429.

Interested in **Saskatoon**

RASC

Membership?

Regular - \$40.00 per year

Youth - \$22.50 per year

It's not too late to join!

Even though the year is now half over, you still get full benefits including the 2000 Observer's Handbook. Note that we will ask you to renew for 2000 - 2001 this October, so if you do not want to join for only half a year before renewal, just ask to get onto our FREE Temporary Membership list until the new membership year begins. You will receive regular mailings of our Saskatoon Skies newsletter and will be invited to participate in Centre activities.

SASKATCHEWAN SUMMER STAR PARTY 2000

If you haven't registered for this year's SSSP, it's time to consider doing so! Fill out your SSSP brochure delivered with last month's newsletter and send it in! If you did not receive an SSSP registration form, visit our website or call registrar **Ellen Dickson at (306) 249-1091**. See you at SSSP 2000!

Membership Updates

by Bob Christie

<nebulachristie@home.com>

(NOTE MY NEW E-MAIL ADDRESS!)

***Remember* - let Bob Christie or Jim Young know if there are changes to your address or status!**

The Saskatoon Centre now has 84 members. If you need a copy of the latest and greatest membership list, send a SASE and I'll get it to you.

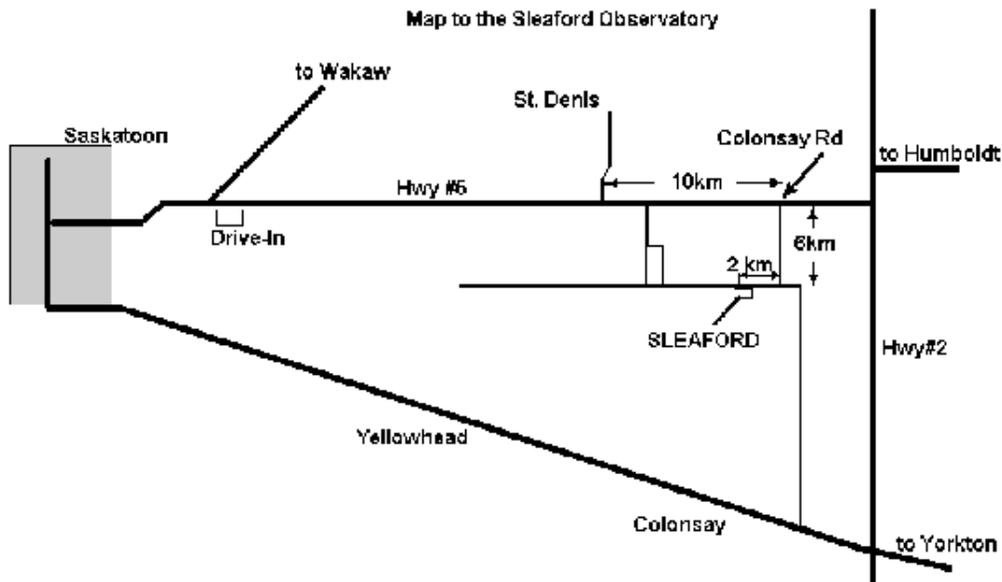
Membership Lists

Bob Christie

143 Perreault Cres.

Saskatoon, SK

S7K 6A9



The Sleaford Observatory

Longitude: 105 deg 55' 13" +/- 13" W Latitude: 52 deg 05' 04" +/- 08" N, tel.: (306) 255-2045

by Rick Huziak

Work Continues May 27: There will be another Sleaford work day on May 27th, weather permitting. Bring your own tools and Bill and Darrell will bring a long list of things to do.

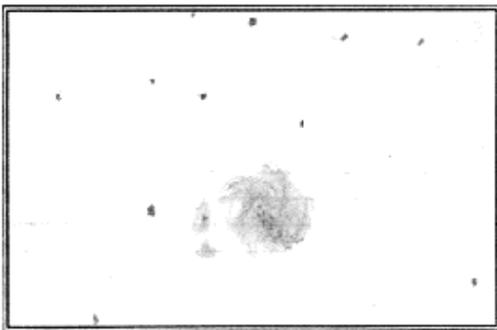
An August 5th Open House: The Friends of Sleaford are planning a Sleaford School reunion to be on August 5th. They plan to have members of the community return to Sleaford School. The RASC has been requested to provide a star night at the site on that evening. Please help out if you can. (We also should move some of the construction supplies out of the school before then).

How to Get to Sleaford: Here's the map for new members and those who haven't been there yet.

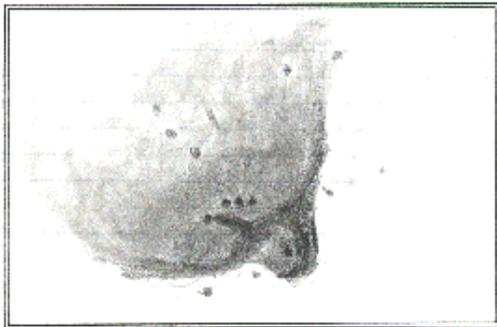
Lorne Jensen's Messiers

in Lorne Jensen's words

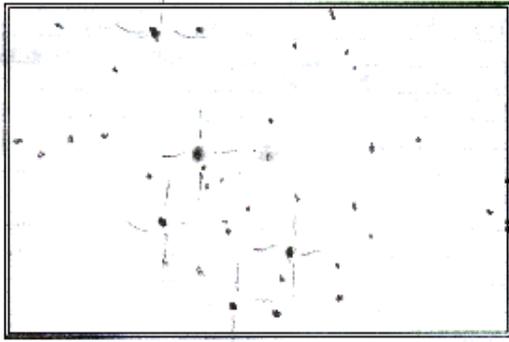
I am pleased to show the following fine sketches of Messier objects by youth member Lorne Jensen. All drawings were made with a 6-inch Newtonian in February and March 2000 [Ed.].



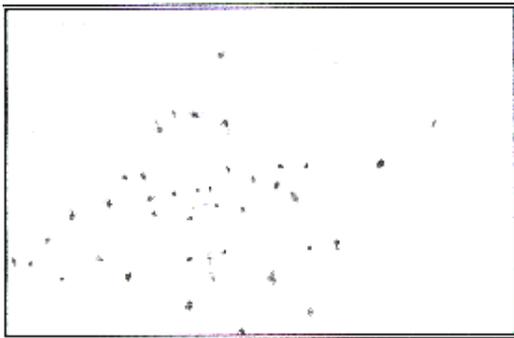
Messier 51 - "This was the first time I've ever seen M51. I could just barely make out M51's companion. I used a 14mm Plossl to record this view."



Messier 42 and 43 - "While I was observing this Messier object, there were fabulous northern lights! I used a 14mm Plossl to capture this view."



Messier 45 - "I couldn't see the nebulosity because of the bright half-full moon. I used a 25mm Mead MA eyepiece to capture this view."



Messier 41 - "I used a 14mm Plossl to capture this view. This night the temperature was only -2°C!"

Minutes of the Executive Meeting

Monday, April 17, 1999

held in Room 8313, City Hospital, Saskatoon, 6:30 p.m.

recorded by Al Hartridge, Secretary

1. Approval of minutes of last meeting - Minutes not available.
1. Youth Group Leader - for 2000 is needed as Sandy would like to take a break from this assignment. Andrew Krochko may be able to fill in for Sandy.

1. Photocopier - Sandy would like to have this removed from her apartment to make more room. Rick may have room for this in his house.
1. General Assembly in Winnipeg - club will send a display featuring some of the clubs activities including info on the development of Sleaford Observatory. Also a promotion on the 2000 SSSP will be put together.
1. Astronomy Day will be on May 6th at the Circle Park Mall . The Mall has thrown us a last minute monkey wrench or two which is too late to deal with this year but this will probably be the last time we deal with them.
1. Financial Report; present balance is \$8775.68.
1. Sleaford: the work bee was very successful and a great deal of work was accomplished and new projects started. A good turn out of workers occurred. We would like to have another work bee in May. This may be held in conjunction with a training session on the operation of the Sleaford plant for those interested.
1. Keys for the warm up shelter are being requested. A charge of \$5.00 per year will be required.
1. Fire Pit: will be built so club can have the occasional weiner roast.
1. Membership: is up to a total of 84 members at present.
1. Plaque for Sleaford and a donor tree has received further discussion.
1. SSSP would like to have a Thursday night weiner roast. A large picnic area near the lake with a barbeque and fire pits may be available to us free. Sandy Ferquson is making final arrangements.
1. Meeting adjourned at 7:30 pm.

WHY DID THE ASTRO-CHICKEN CROSS THE COSMIC HIGHWAY?

DR. SEUSS:

Did the chicken cross the road?

Did he cross it with a toad?

Yes! The chicken crossed the road,

but why it crossed, I've not been told!

ARISTOTLE:

It is the nature of chickens to cross the road.

EINSTEIN:

Did the chicken really cross the road or did the road move beneath the chicken?

CAPTAIN JAMES T. KIRK:

To boldly go where no chicken has gone before.

FOX MULDER:

You saw it cross the road with your own eyes. How many more chickens have to cross before you believe it?

COLONEL SANDERS:

I missed one?

Minutes of the General Meeting

Monday, April 17, 1999

held in Room 8313, City Hospital, Saskatoon, 7:30 p.m.

recorded by Al Hartridge, Secretary

1. Special Presentation :

- Dale Jeffery - Finest NGC Objects Certificate
- Gord Sarty - Finest NGC Objects Certificate

1. Presentations:

- Dale Jeffrey "*Building the Living Skies Observatory*"

- **Darrell Chatfield "How to Observe and See Details in a Telescope"**

1. Approval of the Minutes of March 20th General Meeting

1. Items arising from the Executive Meeting

- **Sandy Ferguson would like to get rid of the photocopier from her apartment.**
- **Sandy would also like take a break from running the Youth Group program and Andrew Krochko said that he may be able to take over.**

1. Astronomy Day: will be held at Circle Park Mall on May 6th. Come out and set up your scope and talk to the throngs about astronomy.

1. General Assembly in Winnipeg will be June 29 to July 2. We will send a display on club activities and also set up a promotion on the 2000 SSSP. An ad hoc committee of Les and Ken will put the display together.

1. Upcoming Events:

- **Living Skies Observatory Grand Opening April 29th ,2000 at 7:30pm.**
- **Meeting on May 15th will be outside so you can bring your own telescope and set it up. Location not set yet.? Forestry farm ? Mendle art gallery patio.**

1. Open House at Sleaford - deemed a success as there was a good turnout but help was lite.

1. .Sleaford Star Party- a community star party for the town of Colonsay may be held on Aug.4th. Further arrangements need to be made.

1. Sleaford work group: was held 3 weeks ago. Lots of work was completed and other projects started. A second work party will be organized for May and also combined with a training session on use of the warm up shelter,dome, telescopes etc.

1. Meeting adjourned at 10:00 pm.

The Conjunction of a Lifetime

by Andrew Krochko

On May 17th, 2000 Venus and Jupiter pass just over one Jupiter diameter from each other. This is the closest they have appeared in the sky since February 6, 1892. Unfortunately the closest approach is at 4:30 am CST, before they rise! When they rise at 5:01 am CST they are 1.47' apart. An hour later at 6:00am CST they are 7.6' apart,

further but still within the same high power field!

The big problem with this conjunction is that it occurs only 7 degrees from the Sun! Although many sources state it will be invisible Rick Huziak has seen Venus 7 degrees from the sun and figures that Jupiter should be visible as well. Our plan is to use the LX200 out at Sleaford to make these planets easy to find and so we don't accidentally look at the Sun. We may have to construct a shade to block the glare. If you want more information and can make it out please give Rick or myself a call.