Saskatoon Skies

Volume 26 Issue 6, June 1995

Saskatoon Skies is published monthly by the Royal Astronomical Society of Canada Saskatoon Centre.

Special Announcements

Please remember that the next meeting is June 19/95. As this is the last meeting before the summer break please mark the date on your calender and attend.

Minutes of the May Executive Meeting
7:00 PM, May 15, 1995 Room B-10,
Health Sciences Building, U of S

Present: Ed Kennedy, Richard Huziak, Sandy Ferguson, Al Hartridge, Merlyn Melby, Mike Williams, Gord Sarty,

1. Meeting called to order at 7:00 PM.
2. The Rystrom Observatory: Jobs to do: install a red-light on the warm-up shelter complete hook-up of 220V electrical box in the machine shed,will be done by Bill and Merlyn. RASC to provide a `donation' to the Rystroms yearly for power consumption. Rick has recorded reading on power meter,can now monitor and will be able to determine yearly cash payment.
update agreement with Nelson Rystrom - Rick needs a copy of present agreement.
Eetook in need of repair of bottom ring - Rick will take care of repairs.
3. Observer's Group report. Both OG nights were clouded out (APR 28, 29). Was an OG committee formed?
4. New Observatory Committee. Al Hartridge has a potential site. Should we place the Western Producer ad? Any people interested in looking at this potential site is ask to meet at Wild Wood mall on Tues. May 23rd
at 9:00 P.M.
5. Binocular Beginners class. Report. All recent sessions have been clouded out.
6. Report on Astronomy Day:Sandy said that the display was very quiet this year and the star night was clouded out.Two new temporary members were signed up however.
7. Temporary members report. No report.
8. Telescope donation to RASC by Doug Miller. Scope should be valued and Doug to get tax receipt for scope and `spin-table' base for 16"
9. IDA membership is due. Do we want to renew? Yes. A motion was made by Al Hartridge and seconded by Mike Williams that President should join. We will pay $20 U.S.
10. City Engineering Committee would like a light pollution presentation. Gord Sarty,Rick Huziak and Al Hartridge will make a presentation with emphasis on low wattage shielded lighting.Ed Kennedy will try and get a copy of light pollution by laws from city of Richmond B.C.
11. Beginner's Observing Guides. 28 are being returned to National at their request. Centre is also paying up for BOGs already sold.
12. RASC Banner. Garry Brett can get us a vinyl banner 3'x9'. A motion was made by Sandy Ferguson and seconded by Al Hartridge up to $150.00 to purchase a banner for the Saskatoon Center.
13. There is another (real) dome available from PA. (Now owned by a Humboldt contractor). Cost could be as high as $500, but might be able to get significantly cheaper.
14. Fund-raising activities (D. Cornish) No report.

15. Plans for a new meeting room off campus.No report.
16. 16-inch telescope report: Kelesy classes over,now have time to work on scope.This will result in CAD drawings. These in return could be used at Kelesy or UofS. Mike Williams says we have $4000.00 in telescope fund. We have a deal for materials and no labor cost which will stretch out the $4000.00.
18. Meeting adjourned at 7:50 PM.

Minutes of the May General Meeting
8:00 PM, May 15, 1995 Room A-226,
Health Sciences Building, U of S

1. Meeting called to order 8:00 PM.
2. Observer's Group report. Both OG nights were clouded out (APR 28, 29). Next OG May 27, raindate June 3.
3. Report on Astronomy Day:Sandy said display quiet.Public Star night clouded out.
4. A 3.1-inch refractor has been donated to RASC by Doug Miller for new members use. Don Friesen has made a reasonable mount for the 6" RFT which will be available as well.
5. Newsletter has been mailed out, but most will get it later than normal.
6. Many members are now on email. Does anyone have an objection to us compiling a complete list and publishing it in the newsletter? No objection.
7. New Business: Yannis has photographs of a dome that is available in P.A.
Speakers for tonight
Erich Keser - The Construction of the Sudbury Observatory , Ed Kennedy
9. Last call for new business
10. Meeting adjourned 9:30pm.

Mary Beth Murrill
Jet Propulsion Laboratory, Pasadena, CA
(Phone: 818/354-6478)

RELEASE: 95-72

SATURN'S RINGS: NOW YOU SEE THEM, NOW YOU DON'T

The rings of Saturn will all but disappear for a few moments on May 22 during a rare astronomical event that will allow astronomers to look for new moons and other features that are normally obscured by the glare of the dazzling rings.

Many of the world's major telescopes, including NASA's Hubble Space Telescope, will focus on Saturn during the 24-minute event. The phenomenon is known to astronomers as a Saturn ring plane crossing. This year and next, the rings will be seen edge-on from the Earth's perspective on three occasions -- May 22 and August 10, 1995, and Feb. 11, 1996. This event only happens about every , years.

Ring plane crossings provide astronomers with unique views of the Saturnian

system. With the rings temporarily invisible as viewed from Earth, faint objects near the planet are easier to see. Thirteen of Saturn's 18 known moons have been discovered during past ring plane crossings.

The faint, outermost E-ring also is easier to detect when viewed edge-on due to the greater amount of material in the line-of-sight. Thus, observations made over the course of the ring plane crossing also can be used to gather new information on the thickness of the rings and to search for new rings.

The event is of special interest to scientists and engineers at NASA's Jet Propulsion Laboratory (JPL), Pasadena, CA, who are fine-tuning the flight path of the Cassini spacecraft. Cassini is scheduled for launch on a mission to Saturn in 1997, jointly conducted by NASA, the European Space Agency and the Italian Space Agency. Any new data on the location
and density of material in the rings will help the Cassini team plan the most advantageous and safest course for the spacecraft to take when it flies through the rings upon arrival at Saturn in 2004.

"We're going in awfully close with Cassini," said mission scientist Dr. Linda Horn of JPL, "so the more we know about the boundaries of the rings, the more confident we'll be." Plans call for the spacecraft to fly through a 15,500-mile (25,000-kilometer) gap between the F- and G-rings, then closely over the broad C-ring. Later, the spacecraft will make several passes through the E-ring.

Astronomers hope to refine measurements of Saturn's small, inner moons during the ring plane crossing. Better estimates of the moons' sizes will be useful in targeting Cassini's observations of those satellites, according to Horn.

Saturn's rings are known to be numerous, dynamically complex and made up of countless particles of ice ranging in size from boulders to snowflakes, with some rock mixed in. They are thought to be the remains of comets, meteoroids and possibly small moons that have been captured and torn apart by Saturn's gravity.

The rings are a prime target for the science instruments aboard the Cassini spacecraft, whose mission is to study the Saturnian system while orbiting the planet for four years. Cassini also will carry the European Space Agency's Huygens Probe to be dropped into the atmosphere of Saturn's large moon Titan. As it parachutes downward, the Huygens Probe
will return information about Titan's atmosphere and surface. In some ways scientists believe Titan resembles Earth as it existed in a primordial stage before life developed. The Cassini Project is managed by JPL for NASA's Office of Space Science in Washington, DC.

NASA press releases and other information are available automatically by sending an Internet electronic mail message to domo@hq.nasa.gov. In the body of the message (not the subject line) users should type the words "subscribe press-release" (no quotes). The system will reply with a confirmation via E-mail of each subscription. A second automatic message will include additional information on the service. Questions should be directed to (202) 358-4043.

Notice of the June General Meeting

You are invited to attend the General Meeting of the Saskatoon Centre of the Royal Astronomcal Society of Canada. The speaker will be Mr. Mark Moore, who will be presenting a talk entitled "The Moon's a Balloon". Mr. Moore is Chief Design Engineer at SED Systems and a new member of the Centre. He has been experimenting with creating 3-dimensional, stereoscopic photographs of objects in space. Besides explaining his recent advances in creating 3-D pictures, he will also show several 3-D examples of his work. Mr. Moore will also explain how he obtained suitable NASA images, did the computer processing and demonstrate the geometry of stereo-vision. Plan to attend at the address below.

Monday, June 19, 1995 Room A-226,
Health Sciences Building,
U of S at 8:00 p.m.

Summer Events Calendar

June 19	***General Meeting, Room A-226 - Mark Moore - "3D Astronomy"***
June 24	OG meeting - Rystrom Observatory - no rain date
June 29-Jul 3	General Assembly, Windsor, ON - Jim Young and Ed Kennedy are attending
June 29 -Jul 3	Assembly of the Astronomical Society of the Pacific - Moorehead, MN (dates tentative)
July 21-23	Northern Prairie Star Fest - Sarles, North Dakota
July 28-29	Annual Public Starnight - most likely in Diefenbaker Park
Aug. 11-12	Perseid Meteor Peak - full moon will wash out - probably an alternate activity
Aug. 23-27	Mount Kobau Star Party - Osoyoos, BC
Sep. 1-4	Alberta Star Party - Eccles Ranch, AB
Sep. 18	First General Meeting of the New Year - Room A-226
Sep. 22-23	Annual Fall Public Star Night - maybe at Wanuskewin

Note: **This month we have a full page ad from the good people at Perceptor. Get in touch with them for all of your astronomy needs. They will be very pleased to offer you the type of service that Perceptor has become known for...Editor**

Letter from the Editor

Well, here it is June already and most of us are asking ourselves where the time is going. If you are like me you are just getting into the habit of doing yard work and cutting the grass every couple of days. Make sure that you take a break now and then and try to get some observing in, if you can see through all of the forest fire smoke.

You may have noticed that I changed the layout of the newsletter again. I told you along time ago that I would play with the layout until I got something I really liked. The reason for the change this time was to make it easier for the people who photocopy our newsletter. They seemed to be having alot of problems getting the exposure right on the newsletter so I thought I would remove the shading to make it a little easier for them. **Al Hårtridge** was over the other night dropping off another superb copy (actually 138 laser copies) of **Astrophoto Corner.** In our conversation he asked me to pass a request along to all of the members of the Saskatoon Centre. He would like everyone who has ever taken an astrophoto to mail him copies of the pictures. Al would like to use some of them in the Astrophoto Corner. He asks that you jot down some basic information like when the picture was taken, what type of film was used, the exposure and if done through a telescope the type of scope. So get out your negatives and photos and send him alot of pictures. I also would like to thank Al for the tremendous contribution to our newsletter. He not only puts together a great astrophoto corner he then laser copies 138 copies of it so that we all get a quality picture. He also goes out of his way a gets everything to me a week before deadline which I really appreciate. Thanks Al.

You will notice that **What Happened in History** is missing from this issue and you can thank yours truly for that. I was working on this newsletter when I reached for the disk and realized that I had lost it and as usual not made a backup. I will have to get everything scanned again and it will be back next issue.

Speaking of the newsletter I apologize for it being late last month. Alot of work go into putting out a newsletter and it requires alot of people coming together at the right time for the newsletter to get out on time. Last month that did not happen and as a result you got your letter late.

My schedule has changed alot lately and I find myself having less time to spend on things such as the newsletter. Normally I have everything ready that I want in the letter a week after the meeting. In fact I am starting to work on future issues now so that I will always be ahead of schedule. As I stated before my job and other things is taking up more of my time and as a result I am in the situation where I do no have alot of free time. **Therefore as of this letter all submissions for the newsletter must still be in by the 1st of each month as usual. *However I no longer will make any exceptions for stuff that is late*. When I do that I end up having to put in alot of rushed work and late hours, and mistakes result and you get the newsletter very late**. So if you plan on submitting something to the

newsletter **(please do)** I would appreciate it if you have it to me by the deadline or earlier. It will make my job a little easier.. **Thanks....Garry**

ASTRONOMY DAY 1995...by Sandy Ferguson

This year's Astronomy Day on Saturday, May 6th was moderately successful for our Centre, although we didn't have as many visitors to our display as in previous years. **Astronomy Day** was competing with a number of other events going on around the city that weekend and it resulted in a relatively quiet day for our event.

The day dawned sunny and mild but gradually hazed over during the day, with cloud moving in toward evening. We set up our display tables, telescopes and other equipment at the Market Mall, with our theme being **"Light Pollution: A Serious Problem".** We offered slide presentations on light pollution and general astronomy and got a fair audience from shoppers throughout the day. Many were very interested in our group and we expect to get a few new members as a result of that interest. **Shafraz Iqbal** also set up his award-winning science fair display on last summer's Comet Shoemaker-Levy's Jupiter encounter, which attracted a lot attention. Although we had **Rick Huziak's** solar scope on hand to check out the sun, haze prevented solar observing. There was one brief moment around noon, however, when a quick look through a clear patch revealed no sunspot activity. We held a free draw for the book "The Astronomers", which was won by **Bill Gorman** of Saskatoon.

The plan for our annual Astronomy Day public starnight at Diefenbaker Park fell through as it was clouded out. These Astronomy Day starnights are getting to be very disappointing, as we have had only one successful starnight in the last four Astronomy Days!

As usual, our Centre is very fortunate in having a lot of great members who helped make the day a success. Many thanks to **Rick Huziak, Amy Huziak** (our slide projectionist and drawer of the prizewinners name) **Shafraz Iqbal,-Scott Alexander, Don Friesen, Al Hartridge, Jim Young, Kim Mysyk, Gord Sarty** and **Garry Brett** for helping man tables and heaving equipment all over town, and to many members who dropped by to lend support.

See you all again next year, when Astronomy Day will be held April 20, 1996.

BINOCULAR OBSERVING PROGRAM REPORT...by Sandy Ferguson

The new binocular observing program, which was offered for the first time in January of this year, under the sponsorship of **MPS Photographics,** got off to a

good start. With **Don Friesen** and myself as instructors and **Brian Friesen** and **Craig Reichert** assisting, we saw the enrollment of 9 enthusiastic participants (7 Saskatoon Centre members and 2 non-members). Not bad for a new program commencing in the dead of Winter! Participants were supplied with the Centre's Messier Log Book and the publication "Night Sky", a nifty little pocket guide book to the heavens, as the primary source material. They also received a number of individual star charts (for Auriga, Gemini, Orion and Leo) and other handouts each month. (We experienced quite a delay in receiving the guide books "Night Sky", due to an order mix-up, but they were finally delivered in April).

Our first meeting, which was held January 28th at the Rystrom Observatory, on a regular Observers' Group meeting night, was very successful. The night was mild, the sky fairly good, and everyone turned out to get to know the Northern part of the sky and the bright Winter constellations. A few Messier objects were also identified, which gave group members an opportunity to record their first Messier observations in their log books. What a great beginning!

Then this nice, short fairy tale came to an abrupt end.

The February 25th observing session was clouded out, but we met at the Observatory on campus, where we had an informal meeting with a slide presentation. Observing sessions on the arranged dates on March 4th and April lst and 29th were also clouded out. We made several attempts to meet on other nights, more or less playing it by ear, but any suitable chances were either not convenient for most members or the nights were so incredibly cold, no-one wished to risk the loss of any body parts (due to frostbite) for the sake of astronomy! Our final opportunity to come together was on Astromomy Day at the public starnight. That, too, was a wash-out.

The binocular observing program is obviously a great way to learn about the night sky through very informal observing sessions. It is also an idea that appeals to a good number of interested and enthusiastic newcomers to astronomy. For these reasons I feel this is a program the Centre should continue. However, I also feel that the best time (and only time) of year to run the program should be in the Fall from September to mid-December. Winter/early Spring just aren't suitable due to cold and late Spring/Summer due to short nights. Autumn has always been my own favourite observing season (it's dark early and the bugs are history) and there is still lots of opportunity to observe the Summer constellations and the early Winter ones.

I would appreciate hearing from anyone who has any comments or ideas with regard to this program. **My home number is 931-3184.** Thanks to **Don, Craig** and **Brian** for being part of the program and thanks to all the participants for being so enthusiastic (and understanding!) **Very special thanks go to Chris MacAulay and MPS Photographics for their support.**

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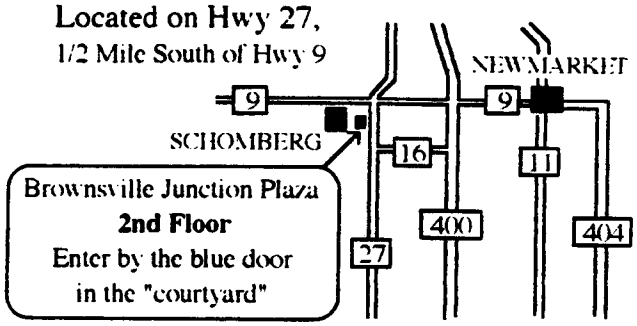

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JUNE 1995 RASC SASKATOON CENTER

PHOTO OF THE MONTH

THE NORTH AMERICAN NEBULA NGC 7000 CYGNUS

This vast cloud of mixed nebulosity,dust and stars lies about 3 degrees east of Deneb (alpha cygnus). It may be seen by naked eye as a region of increased brightness in the Cygnus Milky Way. Binoculars show an irregular glow more than 11/2 degrees in dia. with the North American shape becoming unmistakable on a clear night. The best view of this object perhaps would be with a rich-field telescope and a wide angle eyepiece.Just west of the Atlantic coast line one can see IC 5067 a patch of nebulosity known as the Pelican Nebula and 11/2 degrees south of this is another patch of nebulosity IC5068. The North American Nebula is about 45 light years in diameter and about 1600 light years distant.

The constellation Cygnus is well placed for viewing in the summ sky so put on the bug spray and get out there with your scope or binoculars and have fun studying this area of sky!!

TECHNIQUE: This photograph was taken with my 8" Schmidt Camera which has a focal length of 300 mm. through a Wratten #92 filter which has a band pass for red light.Length of exposure was 24 min.on hypered Tech Pan 2415 film.

ASTROPHOTO TIP: Just recently I obtained a very satisfactory 75 min. exposure of NGC 2903 a face on spiral galaxy in Leo.Jim Young was with me at the time and he hooked his 35mm.Ziess camera with 200 mm. telephoto lens on to my C14 and we gave it a ride while I was guiding the exposure of the galaxy. Jim had loaded his camera with Kodak P 1600 professional slide film which was recommended by Alan Dyer in Astronomy magazine recently. We were interested in confirming his suggestion. Jim had stopped his lens down to f11 for the 75 min. ride and please understand that the film was unhypered. The negative obtained turned out to be of very good quality and recorded numerous stars, NGC 2903, and Mars in the same field. We were very impressed by the apparent minimal reciprocity failure demonstrated by this color film over this long exposure period. This color film looks very promising and we suggest you photographers out there wishing to do color astrophotography give it a try.I know I plan to give this a whorl with my Schmidt camera in the future.

Clear skies and good guiding ---------- Al Hartridge