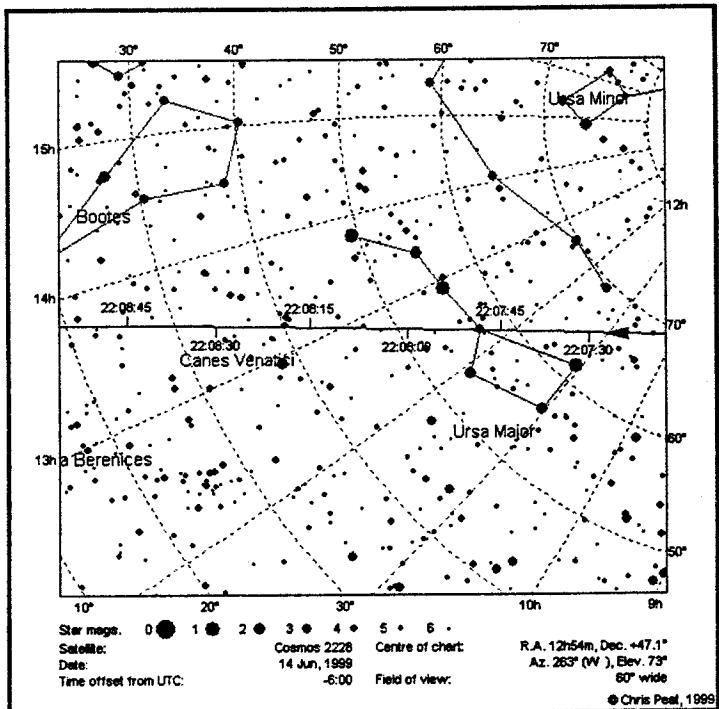


Saskatoon Skies

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

Volume 30, Number 06, June 1999



I often impress school groups with my down-to-the-second predictions of satellite appearances during camp starnights, but I couldn't even come close without the help of the amazing German website at <http://www2.gsoc.dlr.de/scripts/satvis/satvis.asp>? where you can choose any or all satellites visible tonite, or in the future and get extremely accurate ephemerides from more than 1,000,000 standard cities around the world! Now they've added sky view maps as shown above to this impressive site! The map represents the orbit of Cosmos 2228 that flew above the Sleaford Observatory on June 14, 1999 at precisely 22:08:08 local time! And guess what? It was really there! Phenomenal! Satellites, MIR, Space Station, Iridium....it's all there! Remember to set your geographical location. Bookmark this page. Then observe..... [Ed.]

RASC Calendar Happenings

May 22-Aug 15	Noctilucent Cloud Season - observe space clouds!	Rick Huziak	665-3392
Jun 21	RASC General Meeting - 7:30 pm	Erich Keser	374-4262
Jul 1-4	General Assembly - Toronto, ON	Erich Keser	374-4262
Jul 23	Pike Lake Lecture & Mini Starnite	Rick Huziak	665-3392
Aug 7-15	Mt. Kobau Star Party - Osoyoos, BC	Erich Keser	374-4262
Aug 9-13	Perseid Meteor Shower - Two peaks this year - Aug. 11/12 & 12/13	Rick Huziak	665-3392
Aug 12-15	Saskatchewan Summer Star Party - Cypress Hills Interprovincial Park	Erich Keser	374-4262
Sep 8-12	Alberta Star Party - Caroline, AB	Rick Huziak	665-3392
Sep 20	First General Meeting of 1999 - 2000	Erich Keser	374-4262

Sky Buys and Mirror Sells The Saskatoon Centre's Swap and Sale Page!

Wanted: Construction materials for the Sleaford Observatory - We'll take 2x4's, 4x4's, 2x6's, 2x8's, nails, screws, rebar, concrete, landscaping materials, plywood, siding, beer and any other useful construction stuff. **SUMMER is here - it's time to build!** We will pick up - call Rick Huziak at 665-3392.

For Sale: Great astronomy books: *Introduction to Practical Astronomy* (Jones) \$10.00, *Burnham's Celestial Handbook* (hardcover, 3 vol.) \$50.00, *Peterson's Field Guide to the Stars* (softcover) \$10.00, *Starlist 2000* (softcover, Dibon-Smith) \$20.00. Call Darrell Chatfield, tel. 374-9278.

For Sale: 10" Dobsonian telescope, f/5.6, good optics, finder & 5 eyepieces (35mm, 20mm Plossl, 12mm Kellner, 6.3mm Plossl, 2x barlow). Asking \$700.00. Contact Norm Pourier, RR#3, North Battleford, SK, S9A 2X4, tel.: 445-0458.

For Sale: 1-1/4" eyepiece & filters - Kellner 9mm eyepiece \$40.00, Lumicon OIII and Light Pollution (Deep Sky). Call Darrell Chatfield for pricing and trials. tel. 374-9278.

For Sale: Tasco Model 11TR 4-1/2" aperture, 900 mm f.l. Newtonian telescope. Comes with 20 mm and 4 mm eyepieces, 2X barlow, moon filter, equatorial mount and tripod. Call Gerald at 244-9918.

Wanted: Old bed sheets and pillow cases (white, coloured, print, flat or fitted) to be used for Kid's Costumes at the Cypress Hills Star Party. All contributions gratefully appreciated, no matter what condition the sheets are in! Call Sandy Ferguson at 931-3184 or bring to the next General Meeting.

Saskatoon Centre

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Dickson, Sandy Ferguson



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Saskatoon Skies is published monthly by the Saskatoon Centre of the RASC. Distribution is approximately 140 copies per issue. *Saskatoon Skies* welcomes unsolicited articles, sketches, photographs, cartoons, and other astronomy or space science articles. Articles can be sent by mail in any format to the Centre's mailbox. Submissions may also be sent by e-mail - preferred as **plain unformatted ASCII text files without line breaks**. Images sent by e-mail should be UUEncoded, attached .GIFs, .JPGs or similar. Send e-mail submissions to the editor at <huziak@SEDSystems.ca>. Submitted materials can be returned upon request. Please send articles in "generic" formats, with standard grammatical formatting appreciated - 5 spaces at the beginning of paragraphs, two spaces after periods, one space after commas. A separate subscription to *Saskatoon Skies* is available for \$12.50 per year. Articles may be reprinted from *Saskatoon Skies* without expressed permission (except where otherwise stated), but source credit is requested. **DEADLINE for submissions is the 26th of each month.** *Saskatoon Skies* accepts commercial advertising. Please call the editor for rates. Members can advertise non-commercial items free of charge.

International Astronomy Day

by Rick Huziak

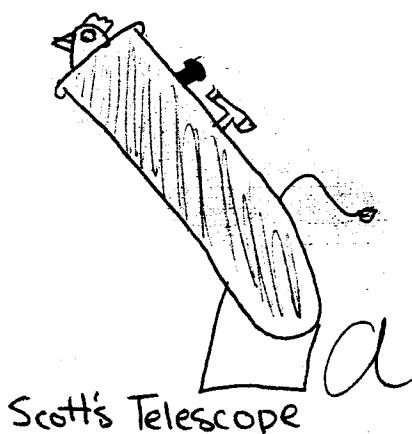
On May 22nd, a display was held at the Lawson Heights Mall in order to promote the 1999 International Astronomy Day. The display was organized by Brent Gratius, Brian Friesen and Sandy Ferguson. The display consisted of the usual; display boards, with now-updated photos (thanks to Sandy Ferguson), a continuous slide show (thanks to the astro-kids manning the projector remote), and several telescopes from 4- to 14-inches in size. Jim Young and I taped up some deep sky photographs half way down the mall, and used these to demonstrate observing through our 8-inch and 10-inch scopes, respectively. Scott Alexander, as always, drew a big crowd around his home-built 14.5-inch. I had originally planned to have my 6-inch solar scope out in the parking lot, but this did not occur due to clouds and rain.

Mall traffic was moderate, but we did have some help since there was a Rabbit Breeder's display and judging down at the far end of the mall, which helped to draw the crowds in. Throughout the day, several hundred people stopped to talk and view the telescopes and display, and we managed to sign up around 30 temporary members, several of which are good prospects for true membership in the new year. (Isn't that what these displays are all about?)

After the display had concluded, many of us agreed to meet for an impromptu gastronomy session at Tony Tomas's Restaurant in the mall. Much noisy slurping and talking-with-the-mouth-full ensued, as well as some lively discussions that almost resulted in bun throwing. I even spilled a full glass of water all over everybody, followed closely by a second by my daughter. You can dress amateur astronomers up, but you can't take them out!

In conjunction with the mall display, a public starnight was planned the same evening at the Beaver Creek Conservation Area, but rainy weather prevented this from occurring.

I would like to thank everyone who participated in the display in any way, and in particular, the following people, who lent a direct hand towards it's success. As always, when lists are made, there may be omissions. If you helped but are not listed below, it is fully my fault I missed you! Thank you anyway: Sandy Ferguson, Amy Huziak, Brent Gratius, Brian Friesen, Jim and Barb Young, Les and Ellen Dickson, Rick Huziak, Al Hartridge, Scott Alexander and his chicken cannon, Kayla McKeever, Lorne Jensen, Graham Hartridge, Bill Hydomako, Helen Dean, Chris Dean, Bryanne Dean, Matthew Dean, Nyla Dean, Bob and Rose Marie Christie, Andrew Krochko (guest), Jeff Phillips (past newsletter editor).



JR. ASTRONOMERS/YOUTH GROUP REPORT

by Sandy Ferguson

The young members of the Saskatoon Centre have had a full year and we have wound up the season with Astronomy Day. Regular meetings each month for both the Junior Astronomers and the Youth Group were well attended and we managed to get in some actual observing on a couple of occasions, when the weather cooperated. This year we began meeting at Nutana Collegiate, which is a fairly decent place for meetings, although streetlights are a real bother.

We observed in behind the school on some nights, which blocked the light, but did manage to get some observing of the Moon, Venus and Mars done this in the front, with the headlights of cars zapping our vision as they careened down Victoria Avenue towards the bridge!!

In December we had our annual tour of the U of S Observatory, which was popular. The sky was indifferent, but we had a chance to see the moon through the Observatory's telescope, before the clouds moved in.

In February Kim Mysyk gave a talk to each group on meteorites. There was a great slide presentation and some meteorite samples, which were a real hit.

That month we also spent some time in Yorkton with Tyler Cottenie, our Youth

Group member. His school was presenting a starnight and it was fun to observe together and with his classmates.

Astronomy Day was busy and we had several young members helping us out at Lawson Heights. Thanks to Graham Hartridge, Lorne Jensen and Kayla McKeever for giving us their time. Special thanks to Amy Huziak, who we might call an "Honourary Member", as she has spent the last 7 years helping on that Day.

We were also delighted to have Brenna Wright provide some of our meetings with her baking efforts, such as Hallowe-en and Valentine cookies!

The BBQ planned at year end had to be canceled/postponed, but we presented Certificates to Lorne Jensen, Adam Klimeschewski and Joey Eremondi for their observing achievements. They had faithfully recorded their observations of several of the objects listed in our Naked Eye Observing List. When anyone completes the entire list (26 objects) they receive special recognition.

We hope to see everyone again in the fall, when we expect to be starting up again. In the meantime, we will be seeing some of our members and their families at Cypress Hills in August.

Noctilucent Clouds Keep Me Up at Night

by Rick Huziak

May 22nd through August 15th is Noctilucent Cloud season. Why not spend some time looking for these interesting clouds that have their origins in space? Noctilucent Clouds, or NLCs for short, form high in the atmosphere, approximately 80 kilometers up when meteoric dust is swept up from space, then is coated with ice. The ice coating make these clouds very effective as front-scatterers, so when illuminated by the sun at an appropriate angle (6 degrees to 16 degrees below the horizon), these clouds literally *shine at night!*

NLCs can first be spotted about one hour after sunset, and may last all night long. They appear directly above the sunset point, and follow this point along through the night; first in the NNW, then rotating through north, and ending up in the NNE in the early morning. Once you have seen the dazzling colors and distinctive appearance of these clouds, you will not misidentify them again. Usually, the clouds are silvery blue, though they may take on different colors in unusual displays. They take on different basic shapes, such as a veil, bands, billows, arcs, whirls, patches, herring bone and other exotic shapes.

Excellent displays have already been seen this year by myself on the night of June 8/9, and by Scott Alexander on the night of June 9/10. The June 9/10 display was multicolored (silver, blue, green and orange) and according to Scott, was so bright, they cast shadows! This same display was seen in the northern US as well.

If you would like to observe NLCs, the NLC Can Am Network would like your help. Your observations will contribute to the scientific study of this poorly understood phenomena. All you need is your eyes, a clear north horizon, and the ability to do basic measurements of heights and position angles. For more information, call me at 665-3392, or contact the NLC Can Am Network directly at **Mark Zalcik, NLC Can Am, 9022-132A Avenue, Edmonton, AB, T5E 1B3, <nlc@planet.eon.net>**, or visit the NLC homepage at <www.personal.uet.com/~kersland/nlc/nlchome.htm>

Cleanup at the Old Rystrom Observatory

by Rick Huziak

As part of the new Sleaford Observatory construction, we cannot forget about the work that is to be done cleaning up the old Rystrom Observatory site. To this end, on June 13th, Darrell Chatfield and I tripped out the Rystroms and began the task of cleaning up all of the old wood bits of junk, trashing the now-unusable Patterson dome and digging out the old piles. As we arrived, Nelson Rystrom immediately offered the use of his flatbed truck. We loaded three loads of scrap wood junk and the old dome and building onto the truck and dumped it into an old bog which Nelson is filling.

Work still remains. The six observatory piles are to be dug out, but thankfully, Nelson wants to keep the old pier for a future lighting standard. We also still must take a load of useful remains out to the Sleaford Observatory.

*It's never the wrong time to join the
Saskatoon Centre*

*Note: membership renewals or new memberships received from
now on will be carried forward to the 1999-2000 year.*

Membership runs from Oct. 1 to Sep. 30.

Please send payment to the Centre mailbox.

Regular - \$40.00

Youth - \$22.50

Life - \$720.00

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

Bob Christie	(applied!!)	110
Wade Selvig		64
Erich Keser		51
Tyler Cottenie		33
Stan Noble		28
Brent Gratias		26
Terry Nelson		21
Les & Ellen Dickson		18
Brian Friesen		15

FINEST NGC CLUB

Certified at 110 Objects: Rick Huziak

Darrell Chatfield	85
Dale Jeffrey	83
Gordon Sarty	82
Scott Alexander	80
Sandy Ferguson	23

HERSCHEL 400 CLUB

Certified at 400 Objects: not yet!

Rick Huziak	329
Darrell Chatfield	158
Gord Sarty	120
Scott Alexander	70
Sandy Ferguson	18

The Messier, FNGC and H400 lists are meant to promote observing! Please send in your observations of these objects, and I'll publish them in the newsletter!

*Join the Messier, Finest
NGC and H-400 Club!*

**Observe all 110 Messier, 100 FNGC or 400 H-400 objects and earn your
*CERTIFICATE!***

The first 2 lists can be found in the Observer's Handbook. The 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. E-mail or phone in you new numbers!

From Brenda Branchett <bdstar@bitstorm.net>
(The Astronomical League - H400 Project)

Subject: Re: Questions about the H400 Club
99.05.21 -

Dear Richard:

Thank you for your questions and the answers are:

Question 1. No, you do not have to be a member of the AL [Astronomical League] to participate in the [Herschel 400] program or to receive a certificate and pin.

Questions 2. The loss of our dear friend [Fr. Lucian Kemble] weighs heavy upon the hearts of those who knew and loved Lucian. Lucian contributed so much to the H400 project that we did not burden him with any verifications of observations. [So there is no Canadian verifier at this time - I will be working with Brenda to rectify this situation - Ed.].

It's a tight race for top spot in the FNGC list! With better weather, I've noticed that several members are out observing again and have sent in their updates - Darrell Chatfield, Scott Alexander and Gord Sarty have all been doing deep sky observing this month. I've even managed to tweak up my Herschel list this month, despite the poor weather. Please get your new number to me as soon as you can!

Send observing numbers to <huziak@SEDSystems.ca>

University Observatory Hours for Public Viewing

The U of S Observatory is open to the general public every Saturday evening. Admission is free. The observatory is located on campus, one block north of the Wiggins Avenue and College Drive entrance.

Hours: Jun - July 10:00 pm - 11:00 pm August 9:30 pm - 11:30 pm

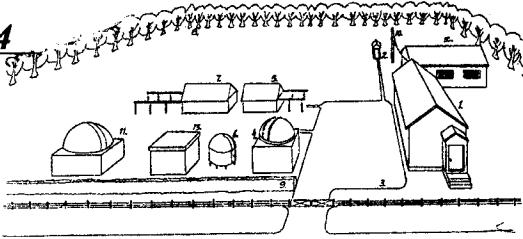
On clear evenings visitors may look through the 6-inch refractor to view Venus, Mars, the moon, star clusters and other exciting astronomical objects. For further information, phone the recorded Astronomy Information Line at 966-6429.

You are invited to the
General Meeting of the Saskatoon Centre
Monday, June 21, 1999 at 7:30 p.m.
Conference Room, National Hydrology Research Institute building
Innovation Boulevard

Presenting:
Som Un Noyen Guy

Good program, whatever it is! We have gone to no expense to feature this program!

This event is open to the general public. There is no admission charge.



The Sleaford Page

by Rick Huziak & Darrell Chatfield

Fundraising

Unusually poor weather (the opposite of what has been predicted by the Weather Service) hampers the use and construction of the Sleaford Observatory. As a result of cloudy skies, and some impending application deadlines, I have managed to put together a fundraising brochure , which can be used for any application for funds. We intend to raise, in total, approximately \$89,000 to complete construction of the Sleaford Observatory over the next 4 years. Much of the money is intended to come from corporate sponsors. To date, we have made application to The Saskatoon Foundation and the IMC Kalium Colonsay potash mine. Darrell's account of that application is below. Erich Keser presented our request to The Saskatoon Foundation. In the next weeks, we intend to make applications to the National Office (for several thousand dollars) and to other leads that we have accumulated.

However, should we actually receive funding from these organizations, then we will obviously need volunteer construction labour from Centre members to build the observatory. The funding we are requesting is generally only for materials, and usually not for labour, in order to keep the budgetary numbers lower. There are already a number of small jobs (listed in last month's newsletter) that need to be done. We have funding in place to complete most of these jobs, so if you have some spare time, and with the long daylight hours, call Darrell Chatfield or Bill Hydomako for something you can do out there!

University News

In recent discussions with the Yannis and Stan from the Physics Department at the U of S, they have managed to scare up more funding for their roll-off observatory, so construction will be continuing there shortly, with a goal of having at least a partially functioning site before August 20th; the start of the astronomy labs. In addition, a new 12-inch will grace their compliment of telescopes. The roll-off shelter will contain a C-14, the new 12-inch, a C-8, and a 5- or 6-inch Zeiss refractor.

A REPORT ON FUNDING FROM THE IMC KALIUM MINE AT COLONSAY

Darrell Chatfield, Site Coordinator, June 9, 1999

Today, after many phone calls and arrangements, Rick Huziak and I went out to the mine near Colonsay to meet with the mine manager, Kelvin Dereski. This the first meeting with Kalium mine to introduce ourselves, with the objective of raising funds for Sleaford. We met with Kelvin for about an hour. He was very receptive to our plans for our site, noting how well Rick had put together the 12 page proposal he had received earlier in the week. I showed him my photograph album of the site, to give him an idea of how the site has been developed to date.

The meeting went very well, with Kelvin needing a bit more information before proceeding at his end. The fact that we as a group committed to the Colonsay community to care for the site, and are willing to hold community star nights, added in our favour.

I will keep you posted as to what the mine will offer us in the way of funding.

Minutes of the General Meeting

Monday, May 17, 1999

held at the National Hydrology Conference Room, Saskatoon, 7:30 p.m.

recorded by Al Hartridge, Secretary

1. **Meeting called to order** at 7:30 p.m by Darrell Chafield, VP.
2. **Presentation:** *Cats in Space: The Next Shuttle Mission and Canadian Julie Payette's Role In It* by Bill Brooks of the Western Space Education Network.
3. **Astronomy Day report:** a display will be held at the Lawson Heights Mall on Sat. May 22nd from 9:00 am. to 5:00 pm. A star night at Beaver Creek will follow weather permitting. An impromptu supper will be held after the display for all those interested.
4. **SSSP update:** To date 57 people have registered. About 4 hotel rooms and 1 standard condo are left. 2000 brochures have been printed for distribution to 50 Centres and clubs. Presentations will be made to Winnipeg, Brandon, Calgary, Lethbridge and Medicine Hat if possible. \$1204.00 has been collected for registration and \$119.00 in deposits has been collected so far. We will have to contact CHIP and make sure that all of their staff is well informed regarding the star party. A time and place will be set for all those interested in volunteering their help.
5. **Site and Partnership report:** A report by Cochrane Engineering has been made regarding renovation of the school house. At least \$60,000.00 would be required. Work has to be done to organize the junk in the school house into a compact pile in order to allow them to work inside the school house. A fundraising brochure has to be drawn up. Meetings with the Kalium Mine, The Saskatoon Foundation, and National will be held. The Allen and Patience Lake potash mines should also be approached.
6. **Observing report:** The next date will be June 12th.
7. **Youth Group report:** Sandy Ferguson is ill and will report at the next meeting.
8. **New Business:** Rick Huziak needs someone to take charge of the following:
 - a daytime presentation at the school in Drake, SK - Erich Keser may be able to do this.
 - Western Space Education Network needs someone to help with the building of a solar scope at their summer camps.
 - slide show and star night at Pike Lake on July 23rd.
9. **Membership List:** Rick requires a new membership list for the newsletter.
10. **Star Night for Colonsay** needs to be organized.
11. **Meeting Adjourned** at 9:45 pm.



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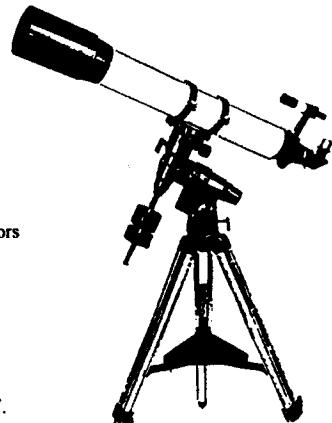
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7.5, 10, 12.5, 17, 26 mm @ \$70 each 32mm @ \$92 each

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- FMTSX series - 7x50 \$650 or 10x70 & 16x70 \$900 each

ANTARES - bak 4 prisms, multi-coated lenses, centre focus

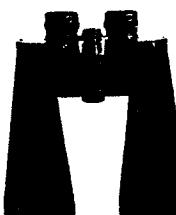
10x70 \$415 11x80 \$510 15x80 \$500 16x80 \$535

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