

Saskatoon Skies

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

Vol. 45, No. 3

March 2014



Left: One of the signposts of winter evenings in Saskatchewan is the stately ascendance of the constellation Orion the hunter across the darkening skies. (Unguided photo taken by editor Ron Waldron from his backyard in Hampton Village area of Saskatoon - **Right:** Jim Goodridge gives a talk on eyepieces at the February Meeting (Photo by Velma Tuomi)



Saskatoon Centre
The Royal Astronomical Society of Canada
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To view *Saskatoon Skies* in colour, see
our Website:
<http://homepage.usask.ca/~ges125/rasc/newsletters.html>

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MEMBERSHIP? JOIN TODAY!

Regular: \$80.00 /year

Youth: \$41.00 /year

Associate: \$33 /year

The Saskatoon Centre operates on a one-year revolving membership. You will be a member for the next 12 months no matter when in the year you join. If you do not want to join at this time, ask to get onto our FREE 3-month Temporary Membership list. You will receive regular mailings of our Saskatoon Skies newsletter and will be invited to participate in Centre activities. Members are encouraged to renew early to avoid disruption in publications. Renew through the National Office at <national@RASC.ca>!

Benefits of Membership in the Saskatoon Centre

- knowledgeable & friendly amateur astronomers
- use of the Sleaford Observatory
- use of the U of S Observatory (after training)
- Saskatoon Skies Newsletter
- Observer's Handbook
- Journal of the RASC (electronic format)
- SkyNews Magazine (bimonthly)
- use of the Centre library
- rent the Centre's Data Projector to give astronomy outreach presentations – contact Les Dickson at astrochem@sasktel.net
- rent the Centre's Telescopes <http://homepage.usask.ca/ges125/rasc/telescopes.html>
- discounts to Sky & Telescope Magazine*
- free, no-cost, no-obligation, 3-month temporary membership if you don't want to join right now!

*New subscription or renewal of Sky & Telescope? Send new info or renewal notice, plus credit card # to Norma Jensen, 128 – 4th Street East, Saskatoon, SK S7H 1H8, or email her at norj@sasktel.net.

U OF S OBSERVATORY

The U of S Observatory is open to the general public every Saturday of the year. Admission is free. The observatory is located on campus, one block north of the Wiggins Avenue and College Drive entrance. On clear nights, visitors may look through the vintage 6-inch and tour several displays. Current events are recorded on the Astronomy Information Line at 966-6429.

Observatory Hours:

January–February	7:30–9:30 pm
March	8:30–10:30 pm
April	9:30–11:30 pm
May–July	10:00–11:30 pm
August	9:30–11:30 pm
September	8:30–10:30 pm
October–December	7:30–9:30 pm

SASKATOON CENTRE'S MAIN OFFICERS:

President – James Gorkoff, 644-1343

Secretary – Tenho Tuomi, 306-858-2453

Vice-President – Jim Goodridge, 370-8530

Treasurer – Norma Jensen, 244-7360

Bottle Drive & Canadian Tire \$ By Colin Chatfield

If you cannot make it to a meeting but would like to contribute your Canadian Tire money please call me at 934-7046.

Newsletter Editor – Ron Waldron

Copy & Collate – Les & Ellen Dickson

Labels & Temps – Mark de Jong

Web Posting – Gord Sarty

Saskatoon Skies is published monthly by the Saskatoon Centre of the RASC. Distribution is approximately 100 copies per issue. Saskatoon Skies welcomes unsolicited articles, sketches, photographs, cartoons, and other astronomy or space science material. **Articles can be sent by mail in any format to the Centre's mailbox.** Submitted materials can be returned upon request. Submissions may also be sent by e-mail to the editor at rwmaldron@shaw.ca as a .doc, no indents, no tabs, one line between paragraphs. Images: jpg please, no larger than 1 – 1.5 MB, sent by e-mail as attached files. **Deadline for submission of all articles for an upcoming issue is the first Friday of the month!**

A separate by-mail subscription to Saskatoon Skies is available for \$15.00 per year. Saskatoon Skies is also posted on our Saskatoon Centre homepage as a .pdf file and can be downloaded free-of-charge. Members may choose to receive the newsletter by regular mail or via the Internet. Articles may be reprinted from Saskatoon Skies without expressed permission (unless otherwise indicated), provided that proper source credit is given. **DEADLINE for submissions** for each month's issue is the 1st Friday of the month. Saskatoon Skies accepts commercial advertising. Please call the editor 306-665-3392 for rates. Members can advertise non-commercial items free of charge.

**LIGHT POLLUTION
ABATEMENT**
WEBSITE AT:
www.ras.sk.ca/lpc/lpc.htm

RASC CALENDAR OF EVENTS

Mar. 22	Observer's Group at Sleaford	Larry Scott
Mar. 28	Messier Marathon at Sleaford	Larry Scott
Mar. 29	Earth Hour with Telescopes at Circle Park Mall	Jim Goodridge
Apr. 4	Astronomy Week Activities - Public Observing at Lakewood Civic Centre	Jim Goodridge
Apr. 5	Astronomy Week Activities – Public Observing at Beaver Creek	Jim Goodridge
April 14-15	Total Eclipse of Moon - Penumbral eclipse begins at 10:53 p.m. Partial eclipse begins at 11:58 p.m., Total eclipse begins at 1:07 a.m. Greatest eclipse at 1:45 a.m. See <i>Observer's Handbook 2014</i> pp.126 - 128.	
April 14	RASC Executive and General Meeting	Jim Gorkoff
April 25	Observer's Group Meeting & Back-up Messier Marathon at Sleaford Observatory - Begins at dusk. Join other members and observe the sky. Members and guests only.	
April 26	Observer's Group at Sleaford	Larry Scott
May 23	Observer's Group at Sleaford	Larry Scott

For a complete list of club events, please check out: <http://www.usask.ca/rasc/activities.html>



General Meeting

for all members and guests
 Room 175 Physics Bldg
 University of Saskatchewan

Monday, March 17th at 8:00 PM

Program

Albert Holm from the AAVSO (American Association of Variable Star Observers) will be presenting "**Behind the Scenes at the Hubble Space Telescope**". A brief description is: "What do observations from the HST look like before they become press releases? How does the Hubble work? Who flies it? What are some of its surprising discoveries? What are the plans for telescopes after Hubble? These topics and more are discussed in this presentation."

Note: there will be an Executive meeting at 7:00 PM

Minutes of February's Executive Meeting – *Tenho Tuomi*

Chairman Jim Gorkoff opened the meeting at 7:05 PM.

RASC National Secretary James Edgar was welcomed to the meeting.

Moved by Tenho Tuomi and Barb Wright that the minutes of the January 20 Executive meeting be accepted as circulated. Carried.

Committee Reports:

Vice-President's report. Jim Goodridge gave a list of speakers for the coming months. (Does the editor have the list?)

Fundraising by Jim Goodridge. Soby's cards will be available again by the end of March.

The Newsletter deadline was assumed to be the first Friday in March.

Events report by Jim Goodrich.

- No Starlab for Earth Hour this year
- March 29, Earth Hour at Circle & Eighth Mall.
- April 4, Public star night at the Lakewood Civic Centre.
- April 5, Public star night and talk at Beaver Creek.

- May 24, Solar observing at the Farmer's Market.

SSSP report by Jim Goodridge. Camping registration opens March 5. Still looking for a Meadows campground co-ordinator.

Light Pollution Abatement report by Rick Huziak. Rick will be giving a presentation to the city regarding the Swale nature preserve, might need city by-law changes for lighting around it.

Other business:

Lex Dickson will be bringing to the next meeting suggested changes to our website to accept PayPal for SSSP registration.

There was a discussion about the need of a sound system for the SSSP.

Moved by Jim Goodridge and Barb Wright that the following motion be presented at the General meeting, "I move that RASC Saskatoon authorize Les Dickson to spend up to \$1500 on a portable sound system for use at the SSSP and at other public events". Carried.

The meeting adjourned at 7:55 PM.

Minutes of February's General Meeting – *Tenho Tuomi*

Chairman Jim Gorkoff opened the meeting at 8:10 PM.

Moved by Ellen Dickson and Jim Goodridge that the minutes of the January 20 General meeting be accepted as circulated. Carried.

Vice-President Jim Goodridge gave a recap of the Executive meeting.

Moved by Jim Goodridge and Elen Dickson that RASC Saskatoon authorize Les Dickson to spend up

to \$1500 on a portable sound system for use at the SSSP and at other public events. Carried.

RASC Secretary James Edgar addressed the meeting briefly and brought greetings from the RASC. He spoke about the Strategic Plan for the RASC and about possible new centres. He took questions from the audience.

The meeting adjourned at 8:35 PM followed by a presentation by Jim Goodridge on Eyepiece Theory.

A Bit of Saskatoon Centre History (Pt.2) – Errol Frazer-Harrison

Editor's Note: A little over a month ago, I asked returning member of our society, Errol-Frazer Harrison if he would consider putting to pen a bit of the history of the Saskatoon Centre as he recalls it. I was delighted when he agreed and even included photos! Below is the second of a two part essay on the history of the Saskatoon Centre, RASC – Part one can be found in the February 2014 issue of *Saskatoon Skies*.



Prof. Ed Kennedy

At one meeting, it was suggested we should join the RASC. We were already affiliated with them in that we could get hold of Observer's Handbooks, but they weren't free and we didn't pay RASC membership dues. So it was decided it would be interesting to open a chapter of the RASC here in Saskatoon. **Prof. Ed Kennedy** was approached and a meeting was arranged between the SAS and the University. Our executive attended, as did **Prof. Kennedy** and **Leon Katz**, who was Dean of Physics at that time. We talked about the benefits of joining the RASC and whether the University was prepared to have a permanent society, so to speak, operating on campus at the Observatory. At that time, they could have taken the use of the Observatory away from us at any time; but, if they were involved in inviting the RASC in, it would be difficult to deny members access to the Observatory.

Not long after that meeting, my first son was born and I found things, for me, had changed dramatically. I couldn't just go out at night whenever I felt like it and observe stars for three or four hours, because we had a boy who was waking up every two hours wanting to be fed. So my pursuit of astronomy dwindled remarkably at that time, though I still tried, when possible, to get back to the society, and I still had my Observatory key for a while. I kept in touch with some of the folks I knew from the SAS (which of course later on did become a branch of the RASC). **Jim Patterson** had disappeared from the scene and got a job with the Department of National Defence and he was up on the DEW Line. But he wasn't up there very long because, shortly after he got his job there, the government decided to close the DEW Line and rely on NORAD for our northern defense. Around this time, Jim acquired an eight-inch telescope—I believe it was a Celestron or maybe a Questar. Jim was not really inspired by astronomy and, as a result, the telescope ended up in the hands of Jim's father, Gord. **Gord Patterson** developed an interest in astronomy and became active in the Society to the benefit of all. I recall that Gord manufactured an eyepiece for the telescope that allowed you to mount an old Pentax Spotmatic camera and take pictures. Even then he was showing an interest in astro-photography. I just happened to own a Spotmatic camera and I remember one evening there was to be an occultation of Saturn by the moon. I missed the start of it, but I knew I'd be there for the end of it, so I went to the Observatory and I set up my camera onto the telescope. I knew where Saturn was going to appear and at what time. I waited patiently using the four-inch spotting scope since actual observations made through the camera eyepiece was difficult. Right on time, the rings started to appear. I quickly took a photo, and then cranked the camera—only to find that was the last frame on the roll! So, with Saturn lifting majestically from the lunar surface, all I could do was sit there and watch because my camera didn't have any film. Later, astronomers from every locale had all of these beautiful pictures of Saturn coming from behind the moon and all I got was a rather fuzzy image of the rings beginning to appear.



Gordon
Patterson

In the 1970s, shortly after he got the telescope from Jim, Gord Patterson built a dome in his backyard. When the telescope was finally sent up and operating, I went around to his house and spent a fascinating evening with him. It was my first exposure to remote observing. Most of the work was done using remote controls in his basement. At the time, Gord lived on Baldwin Crescent, a side street off Arlington Avenue, with his backyard towards Taylor Street. At that time, Taylor was a dead end and Gord believed that he had years of guaranteed south-sky exposure. But then they started to build Lakeview and Taylor Street with all of its traffic was opened up. Add to that the building of a well-lit seniors' complex on the other side of Taylor directly opposite Gord's backyard and



Gord Patterson's dome
at Rystrom

that pretty well destroyed any decent viewing and his dome became all but useless. Gord's dome was later moved to the **Rystrom Observatory**, at which point my contact with Gord, and the budding RASC diminished to nil. As I understand it, Gord's dome was later relocated to the Sleaford site, where it still sits to this day.

I kept up my interest in astronomy through my teaching. Whenever possible, I'd arrange to take my students to see the Observatory. At one point in the 1960s, I was teaching at the high school in Rosthern and it was the only time in their entire school careers that the students in my Grade 12 physics class got to go on a field trip. To this day, former students remind me of their trip to the Observatory in the big city of Saskatoon.

Why am I back in the RASC? In 2002, I retired from teaching. My sons are grown and live in Calgary, and last summer my wife passed away. As a result, I now find myself with an inordinate amount of time on my hands and I thought it would be fun to get back into astronomy. I want to recapture the skills I have lost over the years and become a student for a change in pace and find out what has been happening over the past 40 years or so.

Upon joining the RASC, I was struck by how much things have changed since the old SAS days. Of course, the telescopes have changed dramatically, with so many gadgets attached to them—you can even use a computer program to aim your backyard telescope and see what it is aimed at on your computer monitor, and all this from the warmth of your kitchen! One thing that appealed to me in the old days which is missing today is that we had a fairly active junior membership. This gave kids an opportunity to come out on a night other than the regular Open House night on Saturday. They could talk to grown-ups and say, “I want to look at such-and-such” and we’d say, “Go ahead, and if you need help, just ask.” There was never a shortage of young up-and-coming astronomers in the works. Today, we don’t really have such a group and I think it’s because they don’t have a place to meet. Back in the day, the Observatory and the telescope was the heart of the club and we’d meet there. Now all our telescopes are on private land or out at Sleaford and you can’t ask kids in Grade 7 and 8 to come to a meeting at Sleaford. At the U of S, the only location we have access to is one room in the Physics Building used once a month. Not a place where we can meet any night of the week and put up images of our projects. The RASC has no control over the Observatory anymore. It appears that it has been relegated to the role of historic building, and you can’t even access the RASC library very easily as the university doesn’t allow us to have just one person in the building, so I’m told. It’s a waste of a good building, which could well be utilized as a meeting place for a younger generation of would-be astronomers.

I am impressed with the professional quality of the current membership and I look forward to eventually, with your assistance, educating myself in astronomy enough to actively join their ranks.



Observatory 1966
Smaller trees and
bushes, old dome,
and sundial intact

More on this Month's Guest Speaker – Jim Goodridge



Originally from Michigan's Upper Peninsula, Albert Holm received his bachelor's degree from Caltech and his Ph.D. from the University of Wisconsin-Madison. He has worked on space astronomy missions since 1970, first with the Orbiting Astronomical Observatory-2, then with the International Ultraviolet Explorer, and finally with the Hubble Space Telescope. Currently retired, he last served as Branch Chief for Data Processing and Archival Services at the Space Telescope Science Institute in Baltimore. He carried out research on cataclysmic variables, R CrB stars, and planetary nebulae.

You can find descriptions of some of his presentations at:

<http://www.albertholm.com/AstronomyOutreach.html>

Volunteers Needed for Summer Star Party



- One extremely gifted and talented individual to be Meadows Coordinator for the Saskatchewan Summer Star Party. No experience necessary, training will be provided. The only requirement is that you will be at the Star Party from Thursday to Sunday. Please respond to Jim Goodridge at djgoodridge@shaw.ca
- One individual who is computer savvy to be the webmaster for the Saskatchewan Summer Star Party. No training will be provided, you must know what you are doing or be willing to learn on your own. The current website needs to be updated to take Paypal or at least interbank transfers. Please respond to Jim Goodridge at djgoodridge@shaw.ca

SSSP 2014 Registration Notes – Rick Huziak



The Saskatchewan Summer Star Party 2014 (SSSP'14) is now open for powered/numbered campsite booking in the Meadows Campground. As in the past two years, camping bookings for any or all of the five star party days are booked through *me* and not through the Park. We have exclusive use of 96 campsites for the 5 days of the starparty. We are opening campsite booking now to give you a chance to book EXTRA days around SSSP's dates of August 20 - 25 if you wish, since extra days before or after have to be booked with the Park on Sask Park's Reserve-a-Site and that opens on March 5. The Meadows Campground is now the Park's main campsite, so after Mar. 5, the sites (outside of our 5 days) may go quite quickly. SEE OUR WEBPAGE for all details on how to pick your site. I will do my best to get you into the site you want.

<http://www.usask.ca/rasc/sssp2014camping.html>

I take requests on a first-come, first-serve basis, and do not play favourites nor reserve your same site year after year. You get your site in the order I get your emails. If you are not sure if you are coming, you can book with me, then cancel later if you can't come. EVEN IF the campsite eventually looks pretty full, we will find room for you - we've always fit everyone in easily.

Overflow camping - if you will overflow camp (tent or trailer just out in the open and not in a numbered site) there is no need to prebook, though you can send me an email saying "I will overflow", then I'll just know you are taken care of, and will sleep better :-)

Main SSSP webpage is at

<http://www.usask.ca/rasc/starparty.html>

For those who are hotelling it, make sure you book your accommodations as soon as you can ,too, since the number of reserved rooms is limited. Remember to say "*I'm with the Star Party*", or they will say that they have no room. The resort has a decent cancellation policy. See our website for more information.

SSSP REGISTRATION will open in about one month or maybe a bit more, so check our website, or wait for my email announcing that!

Observer's Group Notes – Larry Scott

You were all here so I won't dwell on the weather conditions. I have nothing to report regarding observing as none was done by me. Although I did watch Venus swing into the morning sky. There were a couple trips to Sleaford to clear the yard but no pay off with a clear night of observing that wasn't -25 or colder.... sorry, won't go there again. So, ever hopeful, we look forward to spring and the possibility of observing. Our next period of moonless skies begins near March 20th and ends around the 1st of April. During this period we've scheduled an **Observer's Group** for **March 22nd** and the **Messier Marathon** on **March 28th**. For those interested in trying the marathon we have paper copies of the list at Sleaford and the list is readily available online. Preparation is recommended and you should be set up by sunset to be ready for the first few objects. Contact me at larry.scott@sasktel.net with questions about the Marathon or getting out to Sleaford for observing.

The Five Visible Planets This Month

adapted from Earthsky.org

Mercury passed out of the evening sky and into the morning sky on February 15. Mercury, the innermost planet of the solar system, reaches its greatest western (morning elongation from its sun on March 14, at a whopping 28° west of the sun. Whereas this will be a super-great apparition of Mercury in the morning sky for the Southern Hemisphere, it'll be a poor one for the Northern Hemisphere. Try using the slender waning crescent moon to locate Mercury below Venus in the east before sunrise on March 28 and March 29.

Venus - beams in the eastern predawn and dawn sky throughout March. At mid-northern latitudes, it rises about two and one-half hours before sunrise in early March and about two hours before sunup by the month's end. Venus will continue to shine as the "morning star" until late September or early October 2014.

Mars - rises in the east around 11 p.m. local daylight-saving time in early March (late night, no matter where you are on the globe). By the month's end, it'll be coming up even earlier – sooner and sooner each evening. Mars *transits* – reaches its high point – around 4:00 a.m. local time in early March and around 2:00 a.m. at the month's end. You'll see a bright star near Mars. That star is Spica in the constellation Virgo.

Moreover, Mars brightens all the while. That's because Earth is now coming up behind Mars in the race of the planets around the sun, and the distance between our two worlds is decreasing. We'll pass between Mars and the sun in early April 2014. At that time, Mars will shine at its brightest best for the year, and moreover, Mars will light up Earth's night sky all night long!

Jupiter - is still the planet to watch in March 2014. It's the brightest celestial object to light up the evening sky in March 2014, with the exception of the moon. No star outshines Jupiter. Earth swung between the sun and Jupiter on January 5, 2014. This is Jupiter's yearly opposition – when it's opposite the sun – rising in the east as the sun is setting in the west, and setting in the west as the sun is rising in the east. Jupiter stays out well past midnight throughout March, setting in the west at roughly the same time that Mars reaches its highest point for the night, a few hours before dawn's first light.

Saturn - rises around midnight in early March and mid-evening by late March. This golden-colored world shines in front of the constellation Libra the Scales. This month, Saturn climbs fairly high in the predawn sky and should be a fine telescopic object. Saturn's rings are inclined by more than 22° from edge-on in March 2014, showing us their north face. Several years from now, the rings will open most widely in October 2017, displaying a maximum inclination of 27° . As with so much in space (and on Earth), the appearance of Saturn's rings from Earth is cyclical. In the year 2025, the rings will appear edge-on as seen from Earth. After that, we'll begin to see the south side of Saturn's rings, to increase to a maximum inclination of 27° by May 2032.

Observing Clubs and Certificates

Join the Club! Observe all 110 Messier, 110 Finest NGC, 400 Herschel I or II, 140 Lunar, 154 Sky Gems or 35 Binocular objects, or Explore the Universe and earn great OBSERVING CERTIFICATES!

MESSIER CLUB

Certified at 110 Objects:

R. Huziak, G. Sarty, S. Alexander,
S. Ferguson, D. Jeffrey, D. Chatfield, B.
Christie, K. Noesgaard,
M. Stephens, B. Hydomako, T. Tuomi, L.
Scott, G. Charpentier, B. Johnson, M.
Clancy, L. Dickson, B. Burlingham, K.
Houston

Norma Jensen	110
complete	
Ron Waldron	105
Wade Selyig	75
Garry Stone	57
Bernice Friesen	45
Wayne Schlapkohl	43
Barb Wright	40
Ellen Dickson	34
Jeff Swick	24
Graham Hartridge	9

Chatfield BINOCULAR CERTIFICATE

Certified at 35 to 40 Objects:

M. Stephens, T. Tuomi, M. Clancy,
R. Huziak, K. Maher

Jim Goodridge	Up!	12
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FINEST NGC CLUB

Certified at 110 Objects:

R. Huziak, D. Jeffrey, G. Sarty,
D. Chatfield, T. Tuomi

Larry Scott	Done!	110
Scott Alexander		97
Norma Jensen		66
Sandy Ferguson		23
Kathleen Houston		23
George Charpentier		13
Mike Clancy		7

EXPLORE the UNIVERSE

Certified at 55 to 110 Objects:

M. Clancy, T. Tuomi, K. Maher,
B. Gratias

Wayne Schlapkohl	Done	55
Sharon Dice		31
Jim Goodridge	Up!	35

Isabel Williamson Lunar Observing Certificate

Certified at 140 Objects:

T. Tuomi

Norma Jensen	133
Jeff Swick	29



HERSCHEL 400 CLUB

Certified at 400 Objects:

D. Jeffrey, R. Huziak, D. Chatfield, T.
Tuomi

Gordon Sarty	251
Scott Alexander	117
Sandy Ferguson	18
Larry Scott	20

HERSCHEL 400-II CLUB

Darrell Chatfield	Done!	400
Rick Huziak		246

LEVY DEEP-SKY GEMS

Certified at 154 Objects:

Tenho Tuomi	150
Darrell Chatfield	70

The Messier, Finest NGC and David Levy's Deep-Sky Gems lists can be found in the *Observer's Handbook*.

The Explore the Universe list is available on the National website.

On-line Messier and Finest NGC lists, charts and logbooks: <http://www.rasc.ca/observing>

On-line Herschel 400 List: <http://www.astroleague.org/al/obsclubs/herschel/hers400.html>

Binocular List is at: http://homepage.usask.ca/%7Eges125/rasc/Chatfield_Binocular_List.pdf

*Isabel Williamson Lunar Observing Program Guide:

<http://www.rasc.ca/observing/williamson-lunar-observing-certificate>

Program details can be found at: <http://www.rasc.ca/williamson/index.shtml>