

Saskatoon Skies

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

Vol. 48, No. 4

April 2017



Tenho Tuomi receives the RASC Astroimaging Wide Field Certificate from Tim May at the Feb. meeting. He was one of the first 10 to submit photos to the program, and is on the national committee that initiated the new RASC Astroimaging Certificate program. There are certificates given for three imaging categories, Wide Field, Solar System and Deep Sky. The criteria for each of these categories, and instructions on how to submit images to the committee, are found at the <https://www.rasc.ca/astro-imaging-certificate> Observing/Programs page.



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see our website:
<http://www.usask.ca/rasc/newsletter.html>

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MEMBERSHIP? JOIN TODAY!

Regular: \$85.00 /year

Youth: \$45.00 /year

Family: \$80/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. Members are encouraged to renew early to avoid disruption in publications. Renew through the National Office at <http://www.rasc.ca/join-us>

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)
- borrow the Centre's Data Projector to give astronomy outreach presentations – contact Les Dickson at astrochem@sasktel.net
- rent the Centre's Telescopes
<https://www.usask.ca/rasc/telescopes.html>
- discounts to Sky & Telescope Magazine*
- use of the Centre library

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

*Note: The hours above are out of date and pending newsletter update.
For current hours please visit:
<http://artsandscience.usask.ca/physics/observatory/hours.php>*

SASKATOON CENTRE'S MAIN OFFICERS:

President – Tim May

Vice-President – Alan Duffy

Secretary – Marcel Müller-Goldkuhle

Treasurer – Norma Jensen

National Council Rep – Rob Shepard

Bottle Drive &
Canadian Tire \$
By Les Dickson

If you cannot attend a meeting but would like to donate your Canadian Tire money please email me at astrochem@sasktel.net

Newsletter Editor – Kris Ohnander

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. Submissions should be sent by e-mail to the editor at krisohn@gmail.com in msword or text format. Images: any format, less than 30MB, 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. Saskatoon Skies accepts commercial advertising. Please email the editor at krisohn@gmail.com 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

| | | |
|-----------------|-------------------------------------|-------------|
| April 17 | RASC General Meeting | Tim May |
| April 22 | Observers Group at Sleaford | Larry Scott |
| April 24 | Youth Astronomy Club Meeting | Ron Waldron |
| May 15 | RASC General Meeting | Tim May |
| May 27 | Observers Group at Sleaford | Larry Scott |
| May 29 | Youth Astronomy Club Meeting | Ron Waldron |

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

April RASC General Meeting

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

Monday, April 17th, 2017 at 8:00PM

Presented by Ron Waldron:

Under the Aurora Oval:

Astronomical adventures in Churchill, Manitoba

See page 7-9!

Presentation by Carl Finlay:

Carl will show us his roll-off shelter for his patio mounted telescope.

Note: There will be an Executive Meeting at 7:00PM

Minutes of the March Meetings - *Marcel Müller-Goldkuhle*

Minutes of the Executive Meeting, March 20, 2017

Meeting called to order by Tim May at 7:05 PM



Approval of minutes of Feb 27 Executive Meeting: Approved with one correction:
Asteroid Day: As this event is planned for June 30th, the seeing is probably an issue.

Reports:

- Membership: +7 members due to the Youth Club
- National: National Council Meeting on April 22nd, concerns to be submitted to Rob Sheppard
- Sleaford: Electrical Installation can be started when the weather allows it.
- SSSP: 2 speakers were contacted, one is already firm.
Information on the website to be updated soon.
Pin Design is in progress.
Volunteers required for Volunteer Coord., Red Light Cafe, Presentation Coord.
The committee is looking for more presenters.
- Youth Club: Currently 7 members, next meeting is on March 27th.
2 tables were bought.
Motion by Errol to get the tables paid by the club, seconded by Les, passed.
- Events: Earth Hour on March 25th, no activities planned by the club.
- Newsletter: Closing Date for the next Newsletter edition is April 7th.

Old Business:

- Open Positions: Event Coordinator still required
Coffee supply coordinator position is to be filled

- 50th Centre Anniversary:
No initiative has been started so far, planning should be started by September at the latest.

- Business Cards: Business Cards Print Sale at Staples

- Stand Up Signs: To be followed up

Canada's 150-year Anniversary: National Star Party planned for July 29

USB-Hub for Roll-Off-Shelter:

If a hub would be installed, appropriate drivers would have to be installed on every computer which gets connected to it.

A mini pc with remote access is an alternative.

Alan to investigate this further.

It was emphasized, that the solution should be simple and easy to use.

New Business:

Jeff Swick doesn't want to maintain the Yahoo Website any longer, he is willing to hand this over to the club. It was discussed how frequently the website is used.

The Sask Science Centre is at the Western Development Museum from April 21st to April 22nd.

A person who is interested in buying a used telescope contacted the club:

Therry Matheson, (306-373-2144)

Meeting adjourned at 8:07 PM.

Minutes of the General Meeting, March 20, 2017

Meeting called to order by Tim May at 8:20 PM.

Report:

Tim gave an update about the topics, which were discussed during the Executive Meeting.

Presentations:

Rick Huziak: Subaru & Dark Skies

In the discussion after the presentation Rick suggested to collaborate with the local Subaru dealer to organize an event. The idea of using the public viewing in Sept for this was supported.

Brent Harrold: My five favourite moons of the Solar System

Shooting for the Stars – Tim Yaworski

For over 30 years I have worked for London Drugs, a Canadian chain of retail stores across western Canada. My time with LD has been spent in the Photo/Electronics department primarily in a senior management role as well as working with the Training and Development for almost 25 years.

Last summer I was asked if I would be able to feature some of my photography through gallery-sized prints displayed in the store. I chose astrophotography as my theme.

As soon as the images were in place, customers started to compliment them and ask about the equipment and techniques that were needed to create them. It soon was clear that this style of photography was something that people were interested in.

One of the things that LD encourages its people to do is to offer opportunities to our customers to learn more about technology through in-store workshops.

I quickly realized that this was an opportunity to combine my knowledge, enthusiasm and training ability to put together an in-store workshop for the budding astrophotographer.

As I was compiling the info and images, I saw this as a good chance to have a few people join me for a September evening in the store and share in my excitement for photographing the night sky. At my most optimistic point I hoped that at least five people would be there in order to make the effort worthwhile.

A month before the scheduled date I placed a few signs up in the store to promote the workshop. No one was more surprised than me when the ten available slots were filled within two days. Once the list was filled I started to take over-flow names and promised to let them know if we would run a second class.

On the night of the workshop, all ten people who registered showed up. It was a fun evening. The room was a bit warm and cramped but the intimate atmosphere more than made up for any shortcomings. By the end of the evening I had made a few new friends and was certain that many who left had a greater appreciation of the night sky as well as saw ways that they could capture some of that with their own cameras.

Meanwhile, the waiting list had almost twenty names by the date of the first workshop. I decided to run monthly



workshops on astrophotography until the interest from the customers waned.

Now, six months later, there is no end in sight. Due in large part from word-of-mouth from those who have already attended, a steady stream of people is registering for upcoming sessions. The current wait time is three months.

I look forward every month to the evenings when I get to sit down for 2 ½ hours with a room full of interested and enthusiastic photographers and share a bit of my knowledge and excitement with them.

This is not an entirely altruistic endeavor on my part however. We are all on a life-long journey of learning and not a session goes by without me learning something new from them as well.

My most ambitious experience in being a mentor (to date) has taught me the joy of sharing a bit of my knowledge with an amazing group of people I have had the privilege of sharing our beautiful universe with.

Aurora from Churchill, MB – *Ron Waldron*

Thirty-seven years ago, I had the opportunity to take a one year planetarium internship offered at the Manitoba Planetarium in Winnipeg, Manitoba. It was an exciting year with a steep learning curve. Because it is part of the Manitoba Museum of Man and Nature, while there I met many interesting people involved in the education of young people and adults alike. One of those people was Roger Woloshyn, at that time a show producer for the planetarium.

Fast forward 36 years and I decide to re-acquaint myself with Roger on Linked-In. It turns out that in the thirty plus years since we last spoke Roger has been making yearly trips to the Churchill to teach and tour visitors at the Churchill Northern Studies Centre (CNSC) about the aurora borealis. I was excited to re-connect with an old friend but didn't think much more about that conversation till about three months later when he called me to tell me he was contemplating retiring from those yearly trips and was I interested. Alan Dyer an RASC member from Alberta had already agreed to do half of the presentations and share his visuals with me. I paused for I think a maximum of 5 seconds and replied enthusiastically “of course I am interested.”

In late February of this year, the CNSC flew me to the Churchill to have Roger train me during his last week and then kept me there one more week so that I could “solo” my own tour group. And what a week it was – I arrived just after a major snowstorm had hit the area and left the day before the biggest snowstorm in 50 years hit (dodged two bullets, I’m sure). On top of that, a major hole in the solar corona appeared during my training week with the subsequent solar wind scheduled to arrive during my solo week. All of this provided me with a truly wonderful experience.

Churchill is clearly one of the best places in the world to see the aurora – not only is it far enough north to be directly under the aurora oval but the south-shifting magnetic pole puts you closer to the action than most other locales.

The Churchill Northern Studies Centre provides accommodations, meals, equipment rentals, and logistical support to scientific researchers working on a diverse range of topics of interest to northern science. Tourists who visit there are helping to fund that research so their presence and their experience is very important to the scientists at the Centre. They host many groups throughout the year but for

aurora, the months of January through March are chosen. This is because the hours of darkness are the greatest as is the frequency of clear skies.

The Centre is a beautiful new building built only five years ago, and has been architecturally sculptured to sit on the landscape and handle the large snowdrifts that often occur after a snowstorm in the fast winds that Churchill is famous for.

Tourists are treated to great food, great accommodations, and even greater aurora when skies are clear. The aurora occurs over the area 300 out of 360 days a year – so often the townspeople take them pretty much for granted except when there is an exceptional display as there was on Christmas Day of last year.

There are three prime viewing areas to view the aurora – those who care to brave the cold and want to photograph (which is most of them) there is the parking lot outside; for those that are fearful of polar bears and want an unobstructed view to the east and north there is the L-shaped high deck. Finally, for those who want a 360-degree view in the comfort and warmth of the Centre itself, there is the 6 foot plexiglass dome on the roof of the building.

The program offered is 4 evenings of 2 hour lectures on the aurora, followed by viewing of the aurora late into each clear evening. My training went very well the first week, I watched Roger, the master, at work and there were clear skies and aurora four out of the six nights. Aurora usually starts closer to midnight so the lectures tend to provide education on what to expect.

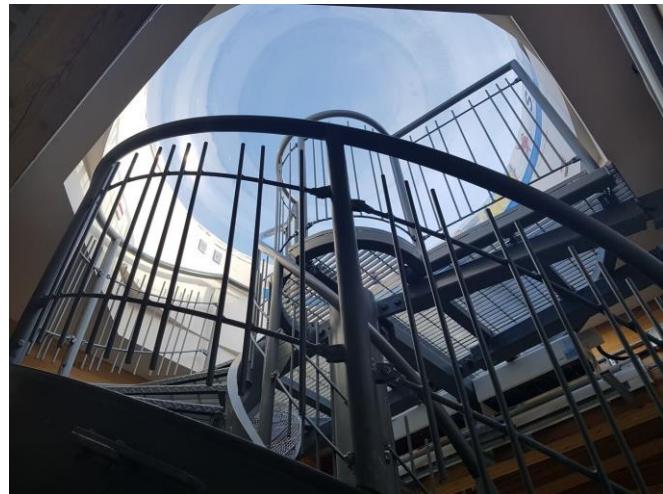
When my group arrived, the solar storm began to hit, skies were perfectly clear and the aurora began showing up as soon as twilight arrived. This made squeezing the lectures in quite challenging but as you might expect everyone wanted to see the aurora so no one (including me) was complaining. Like the previous week, we had outstanding aurora four out of six nights!

The next page features several of the photos I took during my stay. I am scheduled to return next year in March for three weeks to service three more touring groups.

PS – An exciting spinoff of this venture is that I have now been invited to travel and give lectures aboard a Norwegian cruise ship in the fall of this year and in February of 2018!



CNSC building, with tour group.



The plexiglass dome used for warm viewing.



[Above and right] Some examples of the fantastic aurora witnessed in Churchill.



Observer's Group – Larry Scott

Despite a steady diet of clouds prior to the Messier Marathon/Observer's Group on March 25th seven members and guests showed up. Skies were decent with a cool breeze out of the north and high humidity. Doesn't sound very attractive when I put it that way but it was most enjoyable. There were several scopes set up as well as some observers using binoculars. I observed with binoculars as one of the drawbacks of my telescope is that it's unruly in a breeze. Observed about 20 Messiers, several FNGC's, Jupiter and moons and comet 41P. We wrapped up just after midnight as the predicted clouds rolled back in and the dew became unmanageable. Thank you to everyone for the excellent parking job in our soft, wet yard.

Our next Observer's Group is scheduled for April 22nd with Moonless evenings from April 15th to 28th. With our limited hours of darkness in May, June and July this is our last, best chance at deep-sky till SSSP. Start planning right now how you can get some observing in over those two weeks and if the skies are clear you'll be ready.

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. Chatfield, T.
Tuomi, L. Scott, G. Charpentier,
B. Johnson, L. Dickson, B.
Burlingham, Norma Jensen

| | |
|---------------|-----|
| Ron Waldron | 108 |
| Wade Selvig | 75 |
| Wayne | 43 |
| Schlakohl | |
| Ellen Dickson | 34 |
| Graham | 9 |
| Hartridge | |

Chatfield BINOCULAR CERTIFICATE

Certified at 35 to 40 Objects:

T. Tuomi, R. Huziak

| | |
|---------------|----|
| Jim Goodridge | 12 |
|---------------|----|

FINEST NGC CLUB

Certified at 110 Objects:

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

| | |
|-----------------|-----|
| Larry Scott | 110 |
| Scott Alexander | 97 |
| Norma Jensen | 83 |
| Sandy Ferguson | 23 |
| George | 13 |
| Charpentier | |

EXPLORE the UNIVERSE

Certified at 55 to 110 Objects:

T. Tuomi,

| | |
|---------------|----|
| Wayne | 55 |
| Schlakohl | |
| Jim Goodridge | 35 |

Isabel Williamson Lunar Observing Certificate

Certified at 140 Objects:

T. Tuomi, N. Jensen

HERSCHEL 400 CLUB

Certified at 400 Objects:

R. Huziak, D. Chatfield, T. Tuomi

| | |
|-----------------|-----|
| Gordon Sarty | 251 |
| Scott Alexander | 117 |
| Larry Scott | 45 |
| Sandy Ferguson | 18 |

HERSCHEL 400-II CLUB

| | |
|-------------|-----|
| Darrell | 400 |
| Chatfield | |
| Tenho Tuomi | 378 |
| Rick Huziak | 246 |

LEVY DEEP-SKY GEMS

Certified at 154 Objects:

| | |
|-------------|-----|
| Tenho Tuomi | 150 |
| Darrell | 70 |
| Chatfield | |



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.astrolueague.org/al/obclubs/herschel/hers400.html>

Binocular List is at: https://www.usask.ca/rasc/Chatfield_Binocular_List.pdf

"Isabel Williamson Lunar Observing Program Guide:

<http://www.rasc.ca/sites/default/files/IWLOP2015.pdf>

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