

Saskatoon Skies

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

Vol. 47, No. 6

June 2016



For those of us in Saskatoon, the May 9th Mercury Transit was clouded over. Tenho Tuomi and Garry Stone drove to Davidson to find the edge of the clouds and took some pictures of the transit. This was one of the last Garry took before they got clouded over as well. Mercury is the small dot in roughly the 8 o'clock position. More pictures on page 8.



Saskatoon Centre

The Royal Astronomical Society of Canada

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To view *Saskatoon Skies* digitally,
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. 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 <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)
- use of the Centre library
- 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*
- free, no-cost, no-obligation, 3-month temporary membership if you don't want to join right now!

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:

Interim President – Les Dickson

Vice-President – **to be filled**

Secretary – Tenho Tuomi, 306-858-2453

Treasurer – Norma Jensen, 306-244-7360

National Council Rep – **to be filled**

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

June 18	Old Man on His Back Nocturnal Designation Ceremony	Les Dickson
June 20	RASC General Meeting	Les Dickson
July 1-4	Dark Skies (No formal Observers Group, see Notes pg.9)	
July 22-24	Grasslands West Block Star Night	Les Dickson
July 30	Observers Group	Larry Scott
August 3-7	Saskatchewan Summer Star Party (<i>More details online!</i>)	Les Dickson
September 19	RASC General Meeting	Les Dickson

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

June RASC General Meeting

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

Monday, June 20th, 2016 at 8:00PM

***Presented by Kenton Lysak:
How Dark Skies Support Nocturnal Wildlife***

We are now beginning to understand the importance of dark skies for human health, plant health and nocturnal wildlife. Recent research has shown that many native species residing in and around the city of Saskatoon depend on dark skies for their survival. Supporting citizen science and dark sky programs, such as Meewasin's Dark Sky Initiative and reducing light pollution can lead to more ecologically favorable nocturnal habitats for local flora and fauna for generations to come.

***Short Presentation by Les Dickson:
The RASC Observing Certificate Programs***

***Short Presentation by Rob Shepard:
The 2016 RASC General Assembly in London, Ontario***

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

Minutes of the May Meetings

Prepared by Les Dickson based on notes from Jim Young, Les Dickson and Ellen Dickson

Minutes of the Executive Meeting of May 16, 2016

1. Meeting opened at 7:05 pm. Jim Young taking minutes for the absent Tenho Tuomi.
2. Approval of Minutes of Executive meeting of April 18, 2016: Moved by Dale Boan, seconded by Kris Ohnander; approved.
3. President's report – Les Dickson: presented update on SSSP. Next meeting of the committee is May 26.
4. Treasurer's report – Norma Jensen: Norma has set aside \$6000 previously requested for electrical upgrades to Sleaford site.
5. Newsletter Editor's report – Kris Ohnander: Deadline for next newsletter is Friday June 3.
6. Membership Co-ordinator's report – Mark De Jong: We have 78 members.
6. Sleaford Site co-ordinator – Darrell Chatfield: Darrell is looking into the permits needed to do the electrical upgrades at the site.
7. Les Dickson asked for a budget of a maximum of \$600 to purchase two RASC Centre banners for display at indoor events. Mover and seconder was note recorded, but approved.
8. The Meewasin Valley Authority, through Kenton Lysak, has asked for participation by Centre members at a Public Star Night with Meewasin in the NE Swale the evening of Wednesday May 25. Set-up at 9:00 pm, viewing from 10:00 pm to 11:30 pm, weather permitting. Some members indicated that they would appear.
9. Rick Huziak was wondering if any members would be interested in helping out at the May 27/28 Grasslands East Star Party, and an event at the Old Man on his Back Nocturnal Preserve signing ceremony June 18.
10. Rick Huziak mentioned his presentation he made to a conference of park managers and interpreters from about 54 parks in the Saskatchewan parks system.
10. The meeting adjourned before 8:00 pm.

Minutes of the General Meeting of May 16, 2016

1. Meeting opened at 8:03.
2. Approval of Minutes of the General meeting of April 18, 2016: Moved by Jim Young and seconded by Ellen Dickson; approved.
3. Les Dickson welcomed guests and newcomers and gave a short summary of the Executive meeting held earlier.
4. The short presentation was given by Jim Goodridge: "The RASC Visual Observing Log: How and Why to Use it".
5. The main talk was given by Taylor Bell: Observations of Exoplanets. Taylor is a 4th Year student working under the supervision of Stan Shadick.
6. Meeting adjourned at 9:27 pm.

RASC General Assembly Report

— *Rob Shepard, Acting National Rep*

RASC GA/Astrocats London Ontario 2016

First off I would like to apologize for being present at the London GA council meeting somewhat unprepared to accurately reflect Saskatoon RASC activities as acting National Representative.

The Council Board Meeting was primarily to discuss the “Vision” and “Mission” of the RASC by defining and describing the Strategic Objectives as stated.

1. Value to Members
2. Value to Centres
3. Value to Scientific Community
4. Financially Sustainable
5. Value to the Public.

Each Objective should conclude as “SMART”

Specific-target a specific area for improvement.

Measurable-quantify or at least suggest an indicator of progress.

Assignable-specify who will do it.

Realistic-state what results can realistically be achieved given available resources.

Time: related-specify when result(s) can achieve.

All in attendance at the meeting were divided into groups to evaluate the “Strategic Objectives” individually and provide ideas to enhance them. The discussions were intriguing and offered excellent ideas.

Examples of “SMART” objective are

The end of 2016:

- Observing Committee will launch a new lunar observing program that will be promoted by all centres.
- Education and public Outreach team will have a new NOVA program ready for beta testing by centres in 2017

The end of 2017:

- Education and Outreach team will have a schedule of events for the 150th anniversary celebrations including a traveling exhibit that will visit every centre in Canada in 2018.

In Calgary September 2016 the Board will meet to THRASH the new strategic plan.

Also making an appearance representatives from First Durham Insurance that RASC members can get a 20% discount for group auto home insurance.

Light Pollution abatement committee had changes that council carried

I.T. is working hard to maintain software updates and compatibility between operating platforms and software.

Finance Committee to continue developing resources for next council meeting

Publications is looking for input on Home Built Observatories and welcome info from all RASC members.

Observing Committee presently has a Bilingual “Explore the Moon” certificate under development.

The next General Assembly is Ottawa 2017 and for the Next GA 2018 which is the 150th there have been no invitations yet!

SSSP Update – *Les Dickson*

It's June, which means two things: the last RASC meeting before the summer, and that SSSP is only 8 weeks away. While the committee has accomplished a great deal up to now, there is still much to do before August 4 when we meet again at Cypress Hills for another star party.

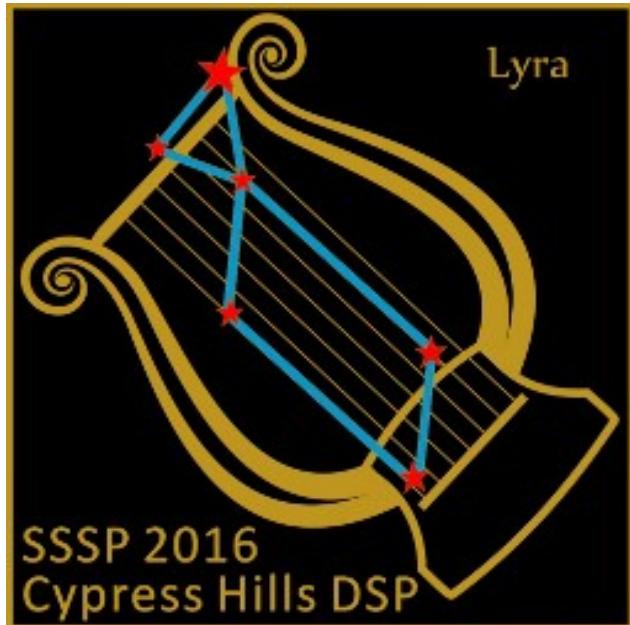
Registration opened on the week of April 11th which coincided with the opening of the CHIPP's on-line reservation system. At that time Andrew Kostiuk had most of the kinks worked out of our new on-line registration system and connection to our new PayPal business account. Since April, we have received 76 registrations accounting for 125 people. So far, 12 people have signed up for the Workshop on *Photoshop for Astronomy* to be given by Alan Dyer. Our early registration period ends early in July, we expect a flood of registrations to come in close to the deadline. We are on-track to meet our usual target of about 300 attendees.

Details on our major speakers have been given in previous articles. We look forward to hosting Candace Savage, Murray Paulson and Kenton Lysak. Ron Waldron has kindly consented to give a star walk clinic at the Meadows on the Friday evening.

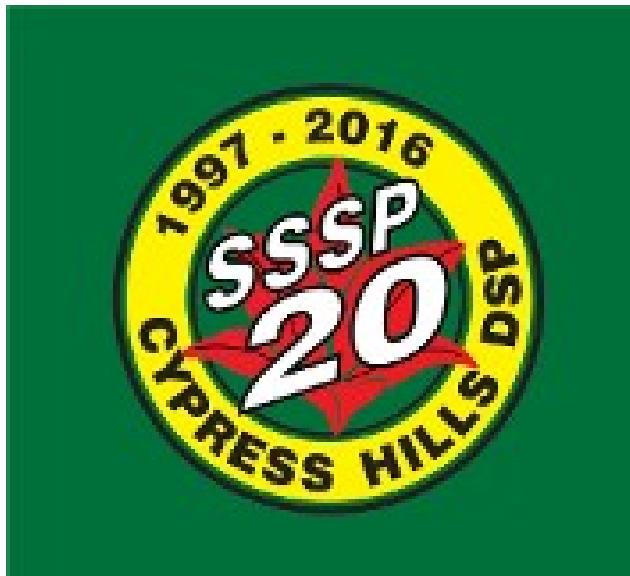
Darrell Chatfield has done his usual great job lining up donors of door prizes to SSSP. We want to thank the following people, businesses and organizations that have or will be donating door prizes this year: All Star Telescope, Aurora Hunters, Bev Chatfield, Colin Chatfield, Cypress Hills Winery, Dan Kulak Family, Darrell Chatfield, Denis Pilon Family, Dons Photo, Jessica Chatfield, McNally Books, Ontario Scope, Petriew Family, RASC – Saskatoon, Sharon Hartridge, SSSP Committee, Tele Vue, The Science Shop.

Regina has produced a shirt logo design that reflects the 20th year of the star party. Both the shirt logo and the design of this year's pin, based on the constellation Lyra, are shown on the next page.

Our committee still needs help in planning and executing our event this year. We still need a Volunteer coordinator to help, as the title implies, to coordinate the work of the dozens of the volunteers that make SSSP work. I know that there are many of you who, when you renewed your RASC membership, indicated that you would volunteer to help out. I will be contacting each of you to ask for your help. Our committee meetings are on Thursday evenings: June 23rd, July 6th, then weekly to the end of July. If you want to be part of this “grand adventure”, please contact me. Your help is appreciated.



SSSP 2016 Pin Design



SSSP 2016, 20th Anniversary Shirt Design

Pictures from the May 9th Transit

— *Tenho Tuomi, Garry Stone*



Tenho and Garry's setup outside Davidson



One of the successful pictures they took during the transit. Mercury is the small dot in roughly the 6 o'clock position. The other black spots are sun spots.

Moon Studies – *Norma Jensen*

As a new amateur astronomer, I started to study the moon, it occupied the sky for two weeks every month and could be conveniently studied from my backyard. Those phases too low to see, I picked up at Tenho and Velma's or out at Sleaford.

Looking at the moon is always different even when looking at the same area or object. Just as with deep sky observing, you learn to lean in and out. Gorgeous conditions and perfect timing. And then there's the rest of the time.

The Isabel Williamson Lunar Observing Program requires a great number of observations for an object or a region. I usually only spent an hour or so on any evening. Sometimes the light was just right to see a rima or series of domes. You could slide across a crater or mare to find dark halos, a line of craterlets or a ghost crater. As with deep space observing, you return to favourites before going off to pursue the yet unobtainable.

I quickly learned to follow the terminators path, here you can discover what is on the edge of dark and light. Complex craters like Clavius, Deslandres and crater groups like Catharina, Cyrillus and Theophilus. To search the Mare Serenitatis Lacus Group. Look anywhere north and south of Mare Frigoris and roam the wonderful southern highlands. There are great solitary mountains like Rumker and Piton and mountain chains, Rhiphaeus and Jura. Most special mention, the Marius Hills and Vallis Schroterei – like prairie coulees and river valleys.

The most challenging areas are those seen during libration as you peer over the usual edge. The IWLOP manual states, "... visible only occasionally and for relatively short periods of time... (with the) right combination of a strong libration ... [and a] favourable sun angle." And so you struggle joyously.

Preparing the submission for the IWLOP reminded me how much I enjoyed this study. Moon mad. That's what I became and still am.

Observer's Group – Larry Scott

At times this can be a frustrating hobby. I was all psyched-up for the transit of Mercury on May 9th but cloud cover rendered it unobservable from Saskatoon. I was going to star-gaze at the Swale but it got clouded out. I was going to the Observer's Group on June 4th but was unable to attend. Doh!

The June 4th Observer's Group went ahead with Rick Huziak hosting (thanks, Rick). Here are his comments hijacked from our yahoo! site:

"We had a good turnout (6 of us) - clear night, wind died down. No noctilucent clouds, but two episodes of minor aurora lasting 10 minutes each. Observing 11pm - 2:45 am - that's all we get for darkness these days ... Ron and I cut most of the grass ... forgot how much fun that is out there!" Wish I'd been there with you and the others.

Our next dark-sky period falls on the July long weekend. I will probably be out to Sleaford but am not going to call for an organized Observer's Group due to the short nights and the July long weekend. Therefore our next organized Observer's Group will be July 30th. This is on the August long weekend right before SSSP. A perfect opportunity to make sure you've got all your telescope parts organized before the star party. Moonless evenings are available from June 26th to July 7th, July 27th till August 7th and August 25th till September 7th. Moon or not Jupiter, Mars and Saturn are in great position for evening viewing. Take advantage of these targets and show someone else as well. As always, I will post on our yahoo! site on evenings I'm going to Sleaford.

(<https://groups.yahoo.com/neo/groups/rascstoon/conversations/messages>)

Have a great summer, use your telescopes, and I hope to see you at Sleaford and SSSP.

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
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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

Norma Jensen	140
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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.astrolleague.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>