

Saskatoon Skies

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

Vol. 50, No. 4

April 2019



What more can you say than wow! Star trails and aurora taken by Colin Chatfield on March 28th.



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/newsletters.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 306-966-6429.

Observatory Hours:

January – February	7:30 – 9:30 pm
March	8:00 – 10:30 pm
April – August	9:15 – 11:45 pm
September	8:30 – 11:00 pm
October – December	7:00 – 9:30 pm

SASKATOON CENTRE'S MAIN OFFICERS:

President – Daryl Janzen
Vice-President – Jim Goodridge
Secretary – Marcel Müller-Goldkuhle
Treasurer – Norma Jensen
National Council Rep – Chris Martin

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

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

Newsletter Editor – Kris Ohnander, Colin Chatfield

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.

RASC CALENDAR OF EVENTS

April 15	RASC General Meeting	Daryl Janzen
April 29	Youth Astronomy Club Meeting	Ron Waldron
May 4	Observers Group at Sleaford	Larry Scott
May 13	RASC General Meeting	Daryl Janzen
May 27	Youth Astronomy Club Meeting	Ron Waldron
June 1	Observers Group at Sleaford	Larry Scott

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

April RASC General Meeting

Hosted jointly with the University of Saskatchewan Observatory:

7:30PM, April 15th, 2019

Room 107, Physics Building, University of Saskatchewan

The University of Saskatchewan Observatory opened its doors in April 1929. One of the first buildings on campus, construction of the building itself as well as purchase of astronomical equipment were made possible through private donations by many prominent figures in Saskatoon -- Aden Bowman, John East, John W Hair (the mayor), and RM Pinder, to name a few -- as well as WH Duncan of Regina, after whom the 7-inch telescope was named. For the past 90 years, the observatory has been an important feature of the university and city, fostering public appreciation of astronomy and touching many lives. This celebration of the observatory on its 90th anniversary will begin in room 107 Physics with a screening of a short video about the history of the observatory by Paul Lehmkuhl, followed by personal recollections from the past 50 years by members of the Royal Astronomical Society of Canada and the U of S: Ron Waldron, Yannis Pahatouroglou, and Stan Shadick.

After the presentation, we will head to the observatory for refreshments and a view through the Duncan telescope (weather permitting).

Note: There will NOT be an Executive Meeting at 7:00PM

SSSP Non-Observer Volunteers

– Rick Huziak, SSSP 2019 Registrar

The Saskatchewan Summer Star Party runs from August 28 through September 2, 2019. SSSP is a whole lot of fun, attracting about 325 of our closest astronomer friends from all over Canada and the northern USA. It is a chance to get to know members of other astronomy clubs and others who are just interested in astronomy. However, SSSP doesn't run without a lot of volunteers. To put this 5-day event on, the organizing committee burns up about 1000 hours of planning before we even get to the star party, and then at the star party we utilized about 50 volunteers who have agreed to work 2-hour shifts to do everything we need to get done, from setting up and taking down the registration tent, to running the Red Light Café, to putting on public events, manning the security gate, taping red flags onto car lights, shepherding speakers, putting up signs, setting up the photo contest, cooking food ... Well, I'm sure you get the idea.

A perennial issue we have is finding enough volunteers to work the events. Kindly, attendees from everywhere love the star party, and we do get members from many astronomy clubs volunteering. But since the star party is run by the Saskatoon and Regina clubs, it would be best that we cover as many volunteer positions as we can, before we ask others.

It seems traditionally that those who attend star parties are "observers": those who will spend time looking at the stars, and who attend the star party because there is a really good sky to observe. However, observing is only one aspect of the star party. Socializing is another, and most of our club's membership are not observers. So an opportunity presents itself for our non-observing members. Meeting and talking to 324 other people, who have the same interests as you, doesn't have to be done at the eyepiece of a telescope. During the day, a lot of friendships are made or renewed. This atmosphere really lends itself to astronomers of all interests, not just observers, attending the star party: those who have armchair interests, club-administrative interests, interests in the history of astronomy, those who read about astronomy and nature and any other interest.

The star party has many activities for all levels of learning and interest, and furthermore, the Cypress Hills Park is an amazing place to relax and explore. There is something for everyone at the SSSP. And, we can really use your volunteer skills, especially during the early evening when the observer volunteers would really like to get to their telescopes earlier. As a reward for attending the star party and helping by volunteering, those of us who are there to observe will gladly take you on a tour of the sky that no armchair nor web-page can ever do! And, you will meet and make friends from all over the place. That, we can guarantee!

Books for Sale

All books are in either new, or like new condition, some still wrapped in plastic. Retail price in brackets. Please email or text me if you are interested and I will bring the book(s) to the next meeting or arrange to meet you. Thank you, Darrell.

novachat@sasktel.net 306-222-0515

The New Solar System.	2009. Patricia Daniels. Colour.	(\$40.00)	\$18.00
Deep Sky Observers Handbook.	5 th vol. 1979. Ken Glyn Jones.		\$30.00
ORBIT – NASA Astronauts Photograph the Earth	1996. Colour.		\$2.00
International Encyclopedia of Astronomy	1987. Patrick Moore. Colour.		\$10.00
Backyard Astronomers Guide	T. Dickinson & Al Dyer. 2008. Colour.	(\$49.95)	\$25.00
Observing Catalog of Deep Sky Objects	1992. B Skiff. B&W.		\$22.00
Pocket Sky Atlas	2009. Jumbo Edition. Sinnott. Colour.	(\$45.00)	\$22.00
Turn Left at Orion	2000. Dan Davis. B&W.	(\$29.99)	\$15.00
The Hatfield SCT Lunar Atlas	2004. Jay Ash. B&W.	(\$53.50)	\$22.00
Amateur Astronomers Catalog of 5000 Deep Sky Objects	Vol 1. 1980. B&W. R Morales.		\$15.00
Observing the Constellations	1989. J Sanford. Colour charts.		\$10.00
Sky and Telescope ‘Pocket Star Atlas’	2006. Sinnott. Colour.	(\$23.95)	\$12.00
Nightwatch	1984. T Dickinson. Colour.		\$10.00
The Great Atlas of the Stars	Serge Brunier. Colour. Oversized.	(\$49.94)	\$25.00

The Sky for April

An Excerpt from the 2019 RASC Observer's Handbook

Moon: On April 0 at 0h UT, Sun's seleographic colongitude is 208.52° and increases by 12.2° each day thereafter.

Greatest N. declination on the 12th ($+22.0^\circ$).

Greatest S. declination on the 25th (-22.1°).

Libration in longitude: E. limb most exposed on the 23rd ($+6.1^\circ$), W. limb most exposed on the 10th (-5.7°).

Libration in latitude: N. limb most exposed on the 6th ($+6.6^\circ$), S. limb most exposed on the 19th (-6.5°).

Mercury: In the morning sky throughout the month, achieving greatest western elongation a whopping 28° from the Sun on April 11. Geometry favours Southern Hemisphere observers throughout this apparition. Has a close conjunction with Neptune on the 2nd, with the waning crescent Moon also nearby. Has a quasi-conjunction with Venus around mid-month, with the two inner planets drawing within 4° on the 16th.

Venus: The brilliant inner planet remains in the waxing gibbous phase as it recedes from Earth. It remains low in the morning sky for Northern Hemisphere observers. The waning crescent Moon passes 3° to its south on the 2nd.

Mars: Spends the month in Taurus, where in early evenings the fading Red Planet can be compared to the orange giant star Aldebaran, gleaming twice as bright some 7° south of Mars at their nearest conjunction on the 16th.

Jupiter: Reaches its first stationary point on the 10th and begins four months of retrograde motion thereafter. Can now be seen for more than half the night. The waning gibbous Moon passes 1.6° to its north on the 23rd. Meridian transit times at Greenwich on the 1st, 11th, 21st, - 04:57, 04:19, 03:39 UT.

Saturn: Remains in the southerly zodiacal constellation of Sagittarius. Has a close pass of the waning gibbous Moon on the 25th, with an occultation occurring in the zone detailed at the bottom of the facing page (Editor's Note: This is page 105 in your Observers Handbook). It reaches its first stationary point on the 30th. Meridian transit times at Greenwich on the 1st, 11th, 21st – 06:48, 06:10, 05:32 UT.

Uranus: Too close to the Sun to be seen, reaching solar conjunction on the 22nd.

Neptune: Gradually emerging in morning twilight for telescopic observers. Undergoes a close conjunction with Mercury on the 2nd, and another with Venus on the 10th.

AWÂSIS Inter-agency Education Conference 2019

April 16, 17 & 18, 2019 Saskatoon, Saskatchewan

Conference info: www.awasis.com

Box 30024 Saskatoon, SK S7L 7M6

Debbie: 306-290-6068 (Exhibitor tables) Elaine: 306-292-7911 (Registrations)

e-mail us at: awasisconf@sasktel.net

The Awâsis Conference committee invites us
April 16th, 17th, 18th, 2019 in Saskatoon, Saskatchewan
Hosted at the Saskatoon Inn

Awasis(name for child in Cree) is the annual conference at the
Saskatoon Inn in April where over 200 First Nations Teachers, Elders
and Chiefs, gather to present and take in training workshops.



The Royal Astronomical Society of Canada

Saskatoon Centre

WEBSITE: <http://www.usask.ca/rasc/> click on "about rasc" to find membership costs

INVITATION TO ATTEND

April 17, 2019, afternoon we are scheduled into the **Alberta** room:

1. At 1:00pm-2:15pm **An Introduction to Astronomy, Your Night Sky**
Norma Jensen
2. At 2:30pm-3:45pm **An Introduction to Astrophotography**
Tim Yaworski

You are invited in the evening to a Star party in parking lot. Our display table is close to the Alberta room which is off the ramp leading to the lower restaurant area, where we will have a display of a telescope, binoculars, material and application to **become a member**. Come visit our table to get information and where we will be set up to view the night sky. The public is invited to come visit the display tables, no registration needed and no entrance fee.

Attending the workshop events requires registration.

Contact, call Elaine.

Ike Thiessen 306-221-7884 ike@scaletech.ca

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
Marcel Müller-Goldkuhle	Up! 94
Wayne Schlapkohl	43
Ellen Dickson	34
Graham Hartridge	9

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 Charpentier	13

EXPLORE the UNIVERSE

Certified at 55 to 110 Objects:

T. Tuomi,

Wayne Schlapkohl	55
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 Chatfield	400
Tenho Tuomi	378
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.astroloague.org/al/obsclubs/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.shtm>