

Saskatoon Skies

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

Volume 56, Number 11

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Royal Astronomical Society of Canada
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To view *Saskatoon Skies* digitally, see our website:
<https://saskatoon.rasc.ca/newsletters.html>

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MEMBERSHIP? JOIN TODAY!

Regular: \$111.00 /year

Youth: \$61.10 /year

Family: \$105.50 + \$42.90/additional adult + \$22.20/additional youth

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>.

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
- borrow the Centre's projector to give astronomy outreach presentations - contact Les Dickson at astrochem@sasktel.net
- rent the Centre's Telescopes <https://saskatoon.rasc.ca/telescopes.html>
- use of the Centre library
- Journal of the RASC (electronic format)

SASKATOON CENTRE'S MAIN OFFICERS:

President - John Takala

Vice-President - Nick Larsen

Secretary - Lorie Tedford

Treasurer - OPEN (Les Dickson to fill in until filled)

National Council Rep - Joelle Sheard-Patrick

Canadian Tire money - Darrell Chatfield

If you cannot attend a meeting but would like to donate your old Canadian Tire money please to assist with club purchases, email Darrell at novachat@sasktel.net.

NEWSLETTER & U OF S OBSERVATORY INFO

Newsletter Editor - Colin Chatfield

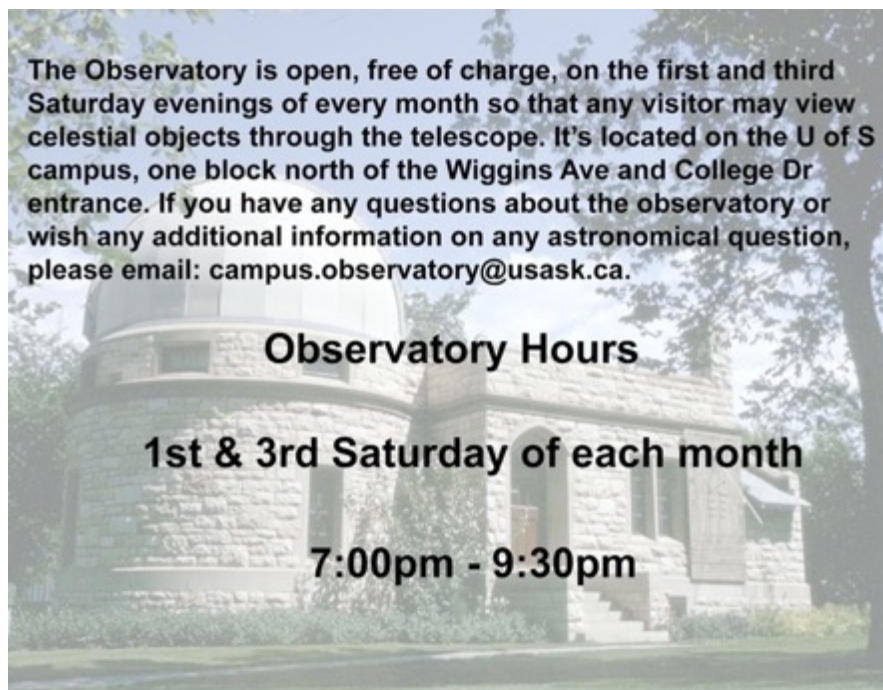
Copy & Collate - Les & Ellen Dickson

Labels & Temps - Mark de Jong

Web Posting/Content Editor - Tenho Tuomi/Andrew Kostiuk/Brent Burlingham

Saskatoon Skies is published monthly by the Saskatoon Centre of the RASC. Distribution is approximately 80 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 colcha@gmail.com in MS Word or text format. Images (new or old): any format, less than 30MB, sent by e-mail as attached files. Send any articles of interest to the night sky or astronomy. **Deadline for submission of all articles for an upcoming issue is the first Friday of each month!**

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 colcha@gmail.com for rates. Members can advertise non-commercial items for free.



Hours subject to change, so check below for more info -

Website - <https://artsandscience.usask.ca/physics/community/observatory.php>

Facebook - <https://www.facebook.com/usaskobservatory/>

RASC CALENDAR OF EVENTS & MEETING INFO

Dec 12	Observer's Group - Sleaford Observatory	Nick Larsen
Dec 13	Christmas Party	Lorie Tedford

Observer's group viewing starts at dusk at the Sleaford Observatory dark site. Get there early and set up for a great night of observing! Members and their guests only.

For a complete list of club events, please visit: <https://saskatoon.rasc.ca/activities.html>

January RASC General Meeting

for all members and guests

Join us on January 17th, 2025, at 8:00PM (Executive meeting at 7:00pm)
Webinar (info below)

***Please note:** the meeting will be at the U of S Observatory at 108 Wiggins Ave (on the U of S Campus)*

7:00pm - **RASC Executive Meeting** (Members may attend the executive meeting as observers if they wish)

A Zoom registration link and phone-in numbers will be emailed to Members. After that, the procedure to register and join the meeting is the same as for the webinar (explained below).

NOTE: links to register to attend the webinar will be emailed out as well so we know who is planning to attend. After registering, an email invitation will be sent with a link to join via computer or a number to phone in. When joining via computer, participants will have to first download and install the Zoom app, if they have not done so already.

8:15pm - **Main Program -**
“Harry Potter Universe” - Ron Waldron

This digital presentation explores the Harry Potter universe and how astronomy plays into the names of the characters and activities at the Hogwarts School of Magic.

BOOKS AND EQUIPMENT FOR SALE

All books are in either new, or like new condition. Retail price in brackets. Please email at novachat@sasktel.net or text/call 306-222-0515 if you want a particular book or to make arrangements. All books being sold by Darrell Chatfield.

"Deep-Sky Observers Handbook"	Volume 1-5	Enslow-Lutterworth	\$40.00
"International Encyclopedia of Astronomy"	1987	Patrick Moore	Color \$10.00
"Backyard Astronomers Guide"	T. Dickinson & Alan Dyer	2008	Color \$25.00
"Atlas of Deep Sky Splendors"	1978	H. Verhenberg	B & W \$22.00
"Amateur Astronomers Catalog of 500 Deep Sky Objects"	Vol 1	1980	B & W
R. Morales			\$15.00
"Observing the Constellations"	1989	J. Sanford	Color charts \$10.00

- **2 - 1.25" rack and pinion focusers** for refractor type telescopes. Brand new. Never used. Inset diameter is 57mm. Heavy duty type with metal knurled knobs. All have boxes. \$20.00 each.

- **Original Celestron orange tube C5" scope** with tangent arm. Fork arms. SCOPE ONLY. No tripod or wedge. 5 x 30 finder, 1.25" visual back, diagonal, eyepiece, lens cap, metal case. Was used as a spotter scope. Not a mark on the tube. Clean looking. \$250.00

- 1 1.25" eyepiece extender - 3" long \$20.00
- 1 1.25" Celestron off axis guider c/w 12.5mm ep. Can be illuminated. New. \$45.00
- 1 Celestron 1.25" reticle. Can be illuminated \$20.00
- 1 3.5" long 1.25" tele-extender \$20.00
- 3 1.25" visual backs new \$10.00 each
- 1 1.25" to 0.965" visual back \$10.00
- 1 Camera to visual back adapter Lightly used \$10.00
- 1 Threaded visual back to 16mm male threads camera adapter \$10.00

- Original orange tube Celestron finder. 10 x 40mm. 304mm (12") long. Comes with bracket meant for a C8" telescope but would fit other scopes. Not a mark on these items. \$65.00

- 6" primary mirror in a 3- point adjustable mirror cell. Some mirror spots. Nice condition. \$85.00 (came from the following tube).

- 7" diameter x 48" long aluminum Newtonian style tube. Ivory exterior with blackened interior. Also has a focuser. Finder bracket supplied as is. There may be some packing tape on the outside that needs to be removed. \$75.00

MINUTES OF NOVEMBER MEETINGS

Lorie Tedford

**Minutes of the Monthly Executive Meeting of the RASC Saskatoon Centre
Monday, Nov 17th, 2025 - 7:00 pm Hybrid: Online & In-person U of S Observatory**

Attending: Brent Burlingham, Lorie Tedford, Les Dickson, Joelle Sheard-Patrick, Darrell Chatfield, John Takala, Nick Larsen, Jeff Swick, Lisa Caldwell, Mark de Jong

- 1. Call to order** 7:00 pm – John Takala (President and Chair)
- 2. Approval of the Executive meeting minutes for October 2025** as printed in the November newsletter. Moved by Brent Burlingham, seconded by Joelle Sheard-Patrick; carried.
- 3. Call for additional announcements/items to add to the agenda.**
 - 3.1 SSSP Chair Motion**
- 4. Announcements from the Chair** – None to present.
- 5. Reports from the Executive Council**
 - 5.1 President’s Report – John Takala**
 - None to present.
 - 5.2 Acting Treasurer – Les Dickson.**
 - Discussed the need to find someone to step into the treasurer position.
 - 5.3 Fundraising – Verity Moore-Wright**
 - Not present. Club discussed that there wouldn’t be enough time to put together a fundraising campaign for giving Tuesday for 2025 but can aim to do it in 2026.
 - 5.4 National Council Rep – Joelle Sheard-Patrick.**
 - Reminder that award nominations need to be in by December 31st. Need two members to sign off a nomination.
 - 5.5 Activities Coordinator – Joelle Sheard-Patrick.**
 - Reached out to the Saskatoon public library to put together a telescope program for the public for potentially starting in 2026.
 - Discussed the possibility of putting together astronomy STEM kits for the public.
 - The telescope program would need an “Ambassador” to run the program. This could be a topic of focus for fundraising in 2026.

- Nick and Joelle presented to the club that a fleet of smart scopes should be purchased for the use of outreach events and club rentals since they are easy to use, transport and there is not a lot of equipment needed.
- Motion made by Nick to purchase 2 Dwarf and 1 Seestar smart scopes for the club to use with the money obtained from the telescope sales. Joelle seconded the motion, carried.

5.6 Co-op Card for RASC – Jeff Swick

- Jeff brought forward the idea of obtaining a Co-op number for RASC members to use. Jeff will investigate the details.

5.7 Sleaford Update – Darrell Chatfield

- The snowblower was brought into the city for repairs. Darrell is going to handle to selling of the snowblower.
- Need to get in contact with the U. of S for the contract with the RM. As well, need to get the invoice from the U. of S.

6. Old Business

6.1 Executive and Support Positions

- The new executive and numerous support positions have been filled. There are, however, a few that remain open and need to be filled. These positions are:
 - Treasurer - **Open**
 - Observers/Imaging Group Coordinator - **Brent Burlingham.**
 - Telescope Rental Coordinator - **Open**
 - Saskatchewan Summer Star Party Chair - **Motion** made by Les Dickson that Rick Huziak to be chair for the SSSP 2026, **seconded** by Brent Burlingham. **Carried.**
- **Addition of Media Coordinator for Advertising.**
 - Jeff Swick with help from the club.

6.2 Christmas Party – Lorie Tedford

- The Christmas Party will be held on December 13th from 5-midnight at Great Western Brewing Company (519 2nd Avenue North).
- Please email Lorie to RSVP at sk_centre@rasc.ca. Collection of \$25/person for food, please bring forward any food sensitivities.

6.3 Website status and update – Brent Burlingham

- After discussion with the Executive, the website was moved from Andrew's server and put onto GitHub. The mobile version is now user friendly. If there are any issues, let Brent know.

7. Motion to adjourn by Les Dickson, seconded by John; carried. 7:52 PM.

**Minutes of the Monthly General Meeting of the RASC Saskatoon Centre
Monday, Nov 17th, 2025 - 7:00 pm Hybrid: Online & In-person: U of S Observatory**

Minutes taken and prepared by Lorie Tedford

- 1. Sharing/Networking Time** - 8:00-8:15 pm – all members
- 2. Call to Order** – 8:15pm – Brent Burlingham (President and Chair)
- 3. Call for additional announcements/items to add to the agenda**
- 4. Call out to new members/guests:** None
- 5. Adoption of the October General meeting minutes** as printed in the November newsletter. Moved by John Takala, seconded by Les Dickson, carried.
- 6. Executive Meeting Summary** – John Takala
 - See Executive Meeting Minutes
- 7. Open Positions**
 - **Treasurer**
 - **Telescope Rental Coordinator**
- 8. Program**
 - 8.1** “Light, the Universe and (Almost) Everything” presented by Les Dickson.

Call to adjourn – Moved by Les Dickson, **carried**

TELESCOPES FOR RENT

Jeff Swick

Saskatoon Centre has made its telescopes available for rent to RASC members on a monthly basis. We have three Sky-Watcher 8 inch Dobsonian telescopes, each with a kit of eyepieces and Antares 8x50 right angle finder scopes. Also we have one Telrad Reflex Sight.

Visit the website for more info -

<https://saskatoon.rasc.ca/rent.html>



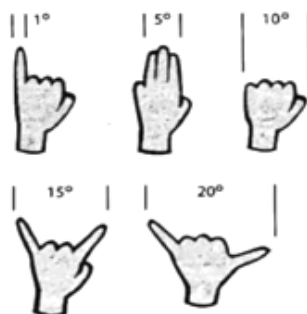


DECEMBER NIGHT SKY EVENTS AND INFO

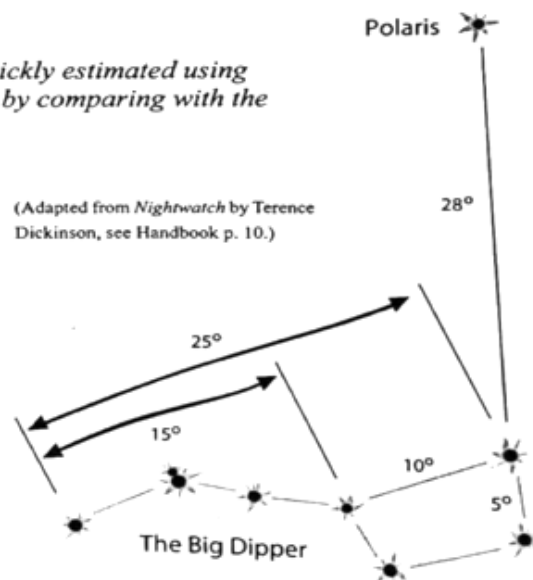
Images on the next few pages used, with permission, from the 2024/25 Observer's Handbook. It can be obtained by joining the RASC here <http://rasc.ca/join> or ordered from <https://secure.rasc.ca/store>.

HANDY SKY MEASURES













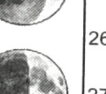

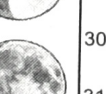
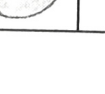

Angular measure in the sky can be quickly estimated using the fingers of an outstretched arm, or by comparing with the star separations in the Big Dipper.

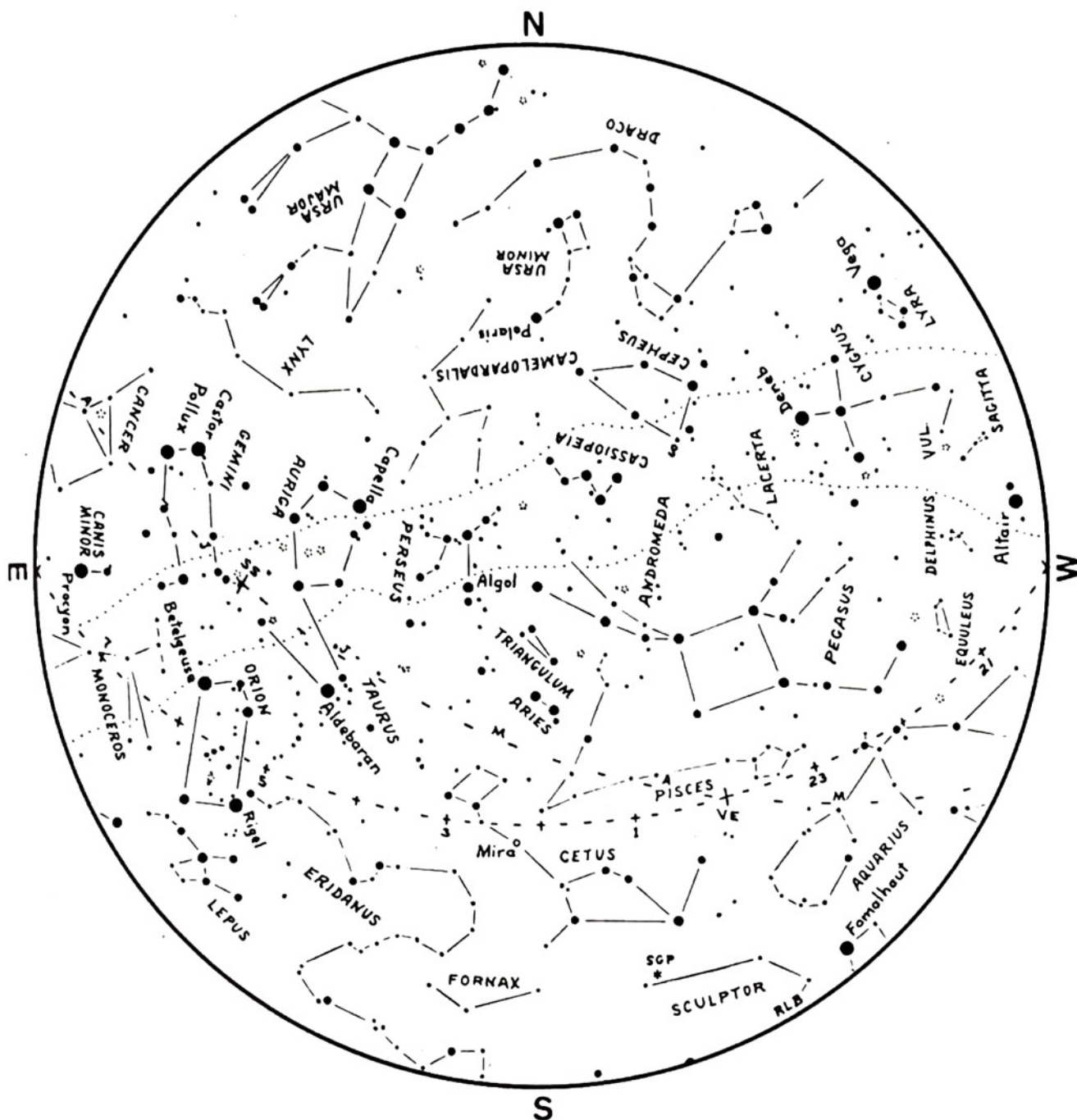


(Adapted from *Nightwatch* by Terence Dickinson, see Handbook p. 10.)



RASC OBSERVER'S HANDBOOK 2024 – STANDARD EDITION

Time (UT)			DECEMBER EVENTS		Jupiter's Satellites	
d	h	m			West	East
Mon.	1				1.0	Europa
Tue.	2				2.0	Io
Wed.	3	19 23	Algol at minimum		3.0	Ganymede
Thu.	4		Mercury at greatest heliocentric lat. N		4.0	Callisto
		3	Moon 0.8° N of Pleiades (M45)			
		11	Moon at perigee (356 963 km) Large tides			
		23 14	full Moon			
Fri.	5				5.0	
Sat.	6	16 12	Algol at minimum		6.0	
Sun.	7	16	Jupiter 4° S of Moon		7.0	
		21	Mercury greatest elongation W (21°)		8.0	
Mon.	8	15	Moon 1.4° N of Beehive (M44)		9.0	
Tue.	9	13 01	Algol at minimum		10.0	
Wed.	10	7	Regulus 0.7° S of Moon, occultation¹		11.0	
Thu.	11	0	Neptune stationary		12.0	
		7 35	Moon at descending node		13.0	
		20 52	last quarter		14.0	
Fri.	12	9 50	Algol at minimum		15.0	
Sat.	13				16.0	
Sun.	14	8	Geminid meteors peak		17.0	
		17	Spica 1.4° N of Moon		18.0	
Mon.	15	6 39	Algol at minimum		19.0	
Tue.	16				20.0	
Wed.	17	6	Moon at apogee (406 322 km)		21.0	
		6	Juno in conjunction with the Sun		22.0	
Thu.	18	3 27	Algol at minimum		23.0	
		13	Antares 0.4° N of Moon, occultation²		24.0	
Fri.	19		Venus at descending node		25.0	
Sat.	20	1 43	new Moon (lunation 1274)		26.0	
Sun.	21	0 16	Algol at minimum		27.0	
		15 03	Solstice		28.0	
Mon.	22	16	Ursid meteors peak		29.0	
		21	Pluto 0.6° S of Moon, occultation ³		30.0	
Tue.	23	21 05	Algol at minimum		31.0	
Wed.	24	16 30	Double Shadows on Jupiter			
Thu.	25	22 03	Moon at ascending node			
Fri.	26	17 54	Algol at minimum			
Sat.	27		Mercury at descending node			
		4	Saturn 4° S of Moon			
		9	Neptune 3° S of Moon			
		19 10	first quarter			
Sun.	28					
Mon.	29	14 43	Algol at minimum			
Tue.	30					
Wed.	31	14	Moon 0.9° N of Pleiades (M45)			



REIMBURSEMENT FOR CENTRE EXPENSES

The Centre has a reimbursement procedure on submission of expense claims. A writeable pdf claim form can be found on the Centre webpage under the Executive tab. The expense form **must** be submitted *along with original receipts* to the Treasurer within 30 days of the transaction. All expenditures must be preapproved by the Executive or be within allocated budgets.

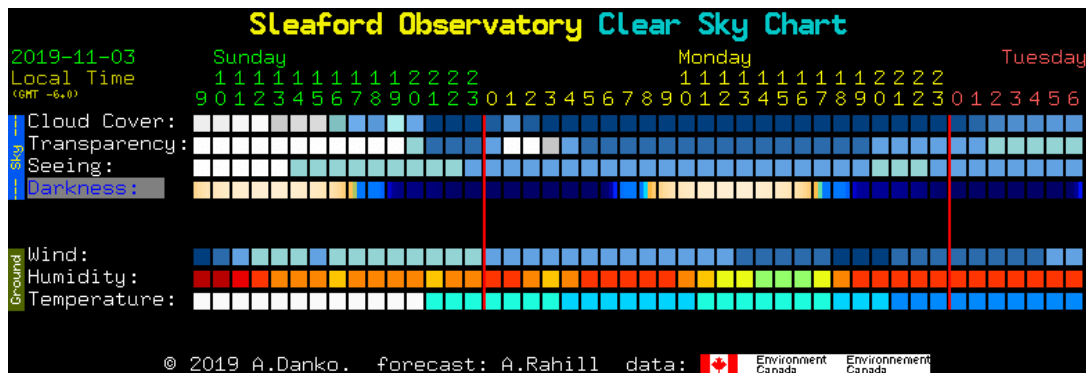
Please contact the Treasurer with any inquiries.

CLEAR SKY AND WEATHER INFO

To find clear skies, visit the Clear Dark Sky website -

<https://www.cleardarksky.com/csk/>

Once there, one can enter your location to find clear skies. The chart will appear as follows:



Environment Canada provides weather information for astronomy -

www.weather.gc.ca/astro



Saskatchewan Light Pollution Abatement Committee -

<http://myotherlife.net/slpac/>



www.darksky.org

COMETS IN 2025

Tenho Tuomi

The first half of 2025 was bare of visible comets. I found only one new comet in the first six months. I did not photograph any comet brighter than magnitude 12 until September.

The brightest comet was C/2025 A6 (Lemmon) discovered in January and appearing here at the end of September. It became and still is the brightest comet in the sky though never brighter than magnitude 4. It returned below the western horizon at the beginning of November. Pictures of it were featured in the November Saskatoon Skies.

The second brightest comet was C/2025 R2 (SWAN) which was discovered in September and appeared to us in October. It is well placed in the southern sky and brightened to magnitude 6 but started fading rapidly at the end of November. It probably was overlooked because the attention was on comet Lemmon. Picture from October 21.



The third brightest comet was C/2025 T1 (ATLAS) at magnitude 10. It was discovered October 11 and I photographed it 11 days later. It is well placed in the northern sky but is starting to fade slowly and is getting lower. Picture from November 25.



The fourth brightest comet was C/2025 K1 (ATLAS) at magnitude 12, discovered in May and appeared to us in July. It was dubbed the Golden Comet because of its golden hue and lack of the characteristic green color of comets. It is high in the northern sky but starting to fade. Picture from November 3.



However it started breaking up on November 11. Picture from November 20.



The most famous comet was the interstellar comet 3I/ATLAS which was discovered in July and appeared in our morning sky in November at magnitude 11, but is fading as it climbs higher. Picture from November 20.

Next year will start with periodic comet 24P/Schaumasse as the brightest comet at magnitude 11, unless something new shows up. It is magnitude 14 in this picture from November 15. I had photographed it before in 2017.



I photographed five other comets in 2025 at magnitude 14 or fainter: C/2021 G2 (Atlas, C/2024 E1 (Wierchos), C/2023 R1 (PANSTARRS), C/2022 N2 (PANSTARRS) and periodic comet 240P/NEAT which I had photographed before in 2019.

OBSERVING CERTIFICATES AND CLUBS

RASC OBSERVING PROGRAMS AND CERTIFICATES

The RASC offers four observing certificates for **members** who observe all objects in each of the following observing lists in this chapter:

THE MESSIER CATALOGUE (p. 312)

THE FINEST NGC OBJECTS (p. 316),

THE DEEP-SKY CHALLENGE OBJECTS (p. 320),

DEEP-SKY GEMS (p. 322).

See rasc.ca/certificate-programs for details and contact the RASC Observing Committee Chair at rasc.ca/contact/observing for further information.



The RASC also offers the **Explore the Universe Certificate** for novice observers (who do not have to be RASC members), the **Explore the Moon Certificate** for beginning members, and the **Isabel Williamson Lunar Observing Certificate** and the **Double Stars Observing Certificate** for intermediate to advanced members. In addition, **Astroimaging certificates** are available for those members with a photographic bent. See rasc.ca/astro-imaging-certificate

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,
Donna-Lee May*

Ron Waldron	108
Brent Gratias	104
Marcel Müller-Goldkuhle	94
Wade Selvig	75
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
Brent Burlingham	97

EXPLORE THE UNIVERSE

Certified at 55 to 110

Objects: *T. Tuomi, B. Gratias*

Wayne Schlapkohl	55
Jim Goodridge	35

ISABEL WILLIAMSON LUNAR OBSERVING CERTIFICATE

Certified at 140 Objects:

T. Tuomi, N. Jensen

EXPLORE THE MOON CERTIFICATE

T. Yaworski

Brent Gratias	37
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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 Chatfield	400
Tenho Tuomi	378
Rick Huziak	246

LEVY DEEP-SKY GEMS

Certified at 154 Objects:

Tenho Tuomi	150
Darrell Chatfield	70

Messier, Finest NGC, and David Levy's Deep-Sky lists in the *Observer's Handbook*.

The Explore the Universe list is available here <http://www.rasc.ca/explore-universe>
Messier and Finest NGC lists, charts and logbooks: <https://www.rasc.ca/certificate-programs>

Herschel 400 List: <http://www.astroloague.org/al/obsclubs/herschel/hers400.html>

Chatfield Binocular List is at: https://saskatoon.rasc.ca/Chatfield_Binocular_List.pdf

"Isabel Williamson Lunar Observing Program Guide" program details can be found at:

<https://www.rasc.ca/isabel-williamson-lunar-observing-program>