

Saskatoon Skies

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

Volume 56, Number 08

September 2025



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 - Brent Burlingham

Vice-President - John Takala

Secretary - Lorie Tedford

Treasurer - Les Dickson

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

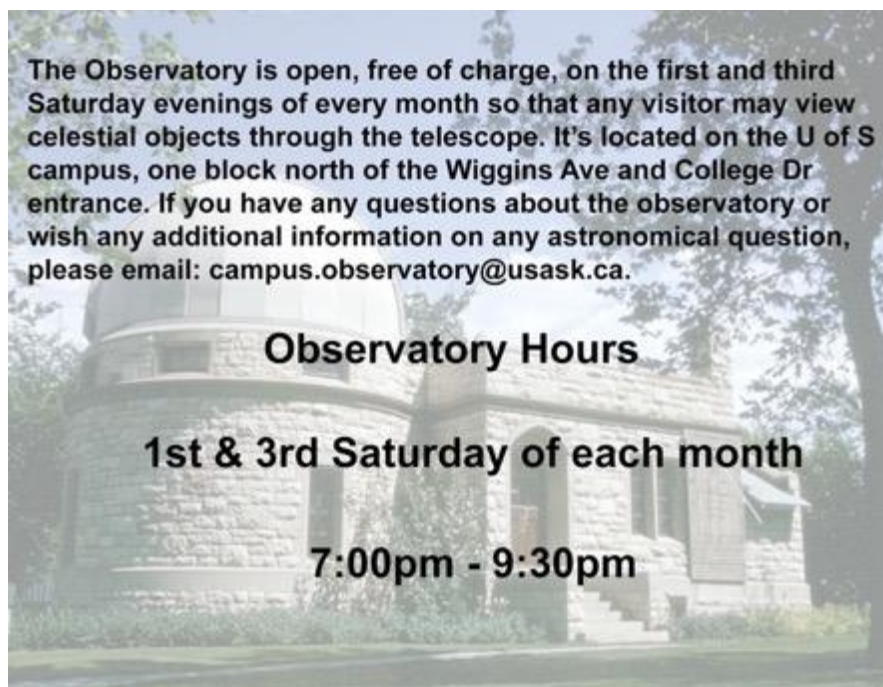
Copy & Collate - Les & Ellen Dickson

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/facilities/observatory.php>

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

RASC CALENDAR OF EVENTS & MEETING INFO

Sept 15	RASC Saskatoon Centre General Meeting	Brent Burlingham
Sept 20	Observer's Group - Sleaford Observatory	Nick Larsen

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>

September RASC General Meeting

for all members and guests

Join us on September 15th, 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 -**

"What's Up This Month?" - Colin Chatfield

"What, exactly, is space-time?" Dr. Daryl Janzen - Defining space-time is more than a technical debate - it's about what kind of world we think we think we're living in.

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 \$15.00
	R. Morales		
"Observing the Constellations"	1989	J. Sanford	Color charts \$10.00

Please email me if you want to see any items - novachat@sasktel.net. Darrell Chatfield

- **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

Garry Stone's telescopes for sale:

Celestron C8 with f/6.3 reducer --- \$550.00

Meade 8" LX10 --- \$500.00

Meade 90mm x 800mm F/8.8 refractor --- \$50.00

Open for offers

Contact Cathy Stone stone611@icloud.com

Celestron

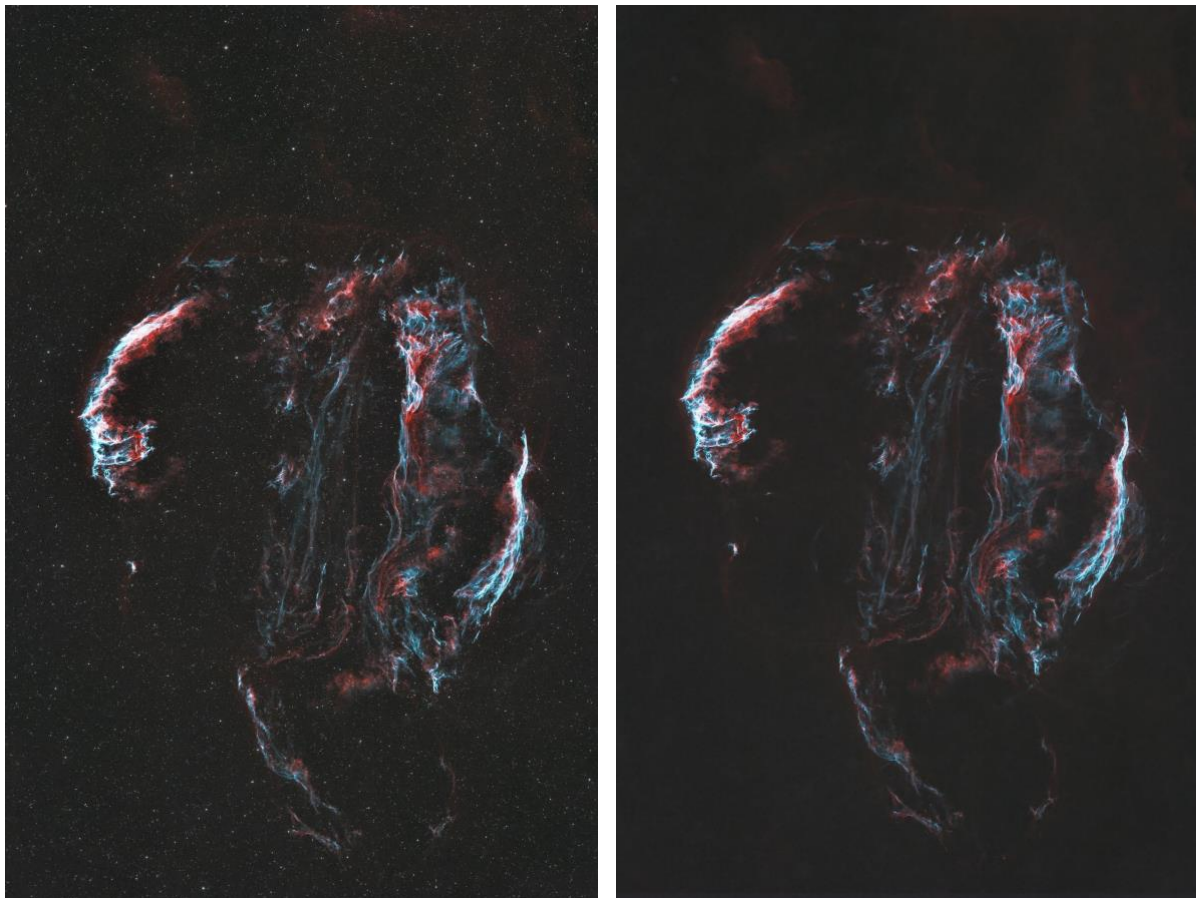
SkyMaster Pro Binoculars 15x70

Orion

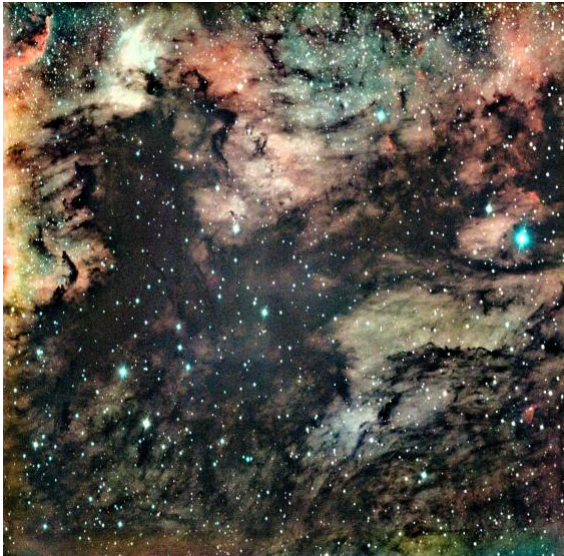
Paragon-Plus Binocular Mount with Tripod with a carrying case.

Both items have never been used. I will take the best serious offer.

Text Ron 306-381-6256 for more information.



*Cygnus Loop. 209-300 second subs from Redcat 51/ASI 2600 Duo camera. Stacked and registered in Siril.
. The left is with minimal stars and the right with stars removed. Taken by Nick Larsen*



*A stack of 4 hours of NGC 7000 that is now ready for post processing.
Taken by Jeff Swick.*



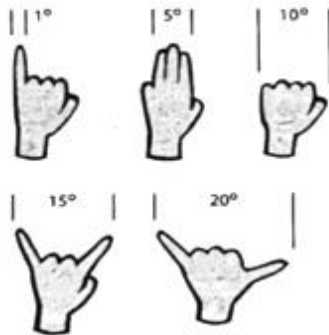
*Nick Larsen off his rig during the scope walk at SSSP 2025.
Taken by Jeff Swick.*

SEPTEMBER NIGHT SKY EVENTS AND INFO

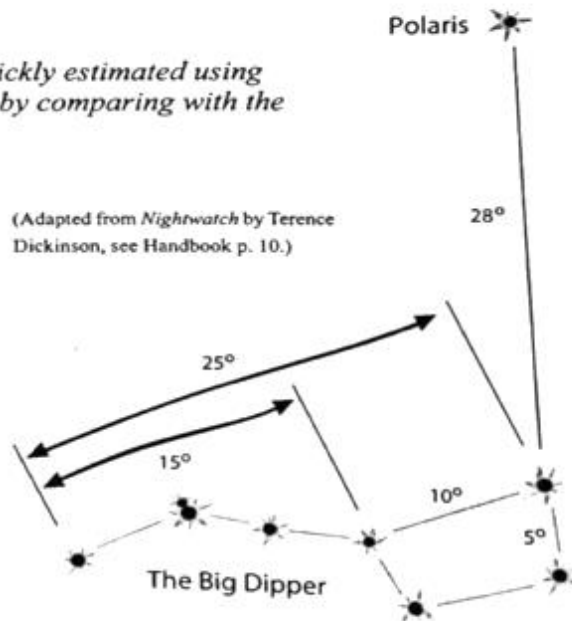
Images on the next few pages used, with permission, from the 2024/25 Observer's Handbook. It can be obtained by joining the RASC here <http://rasc.ca/join> or ordered from <https://secure.rasc.ca/store>.

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.



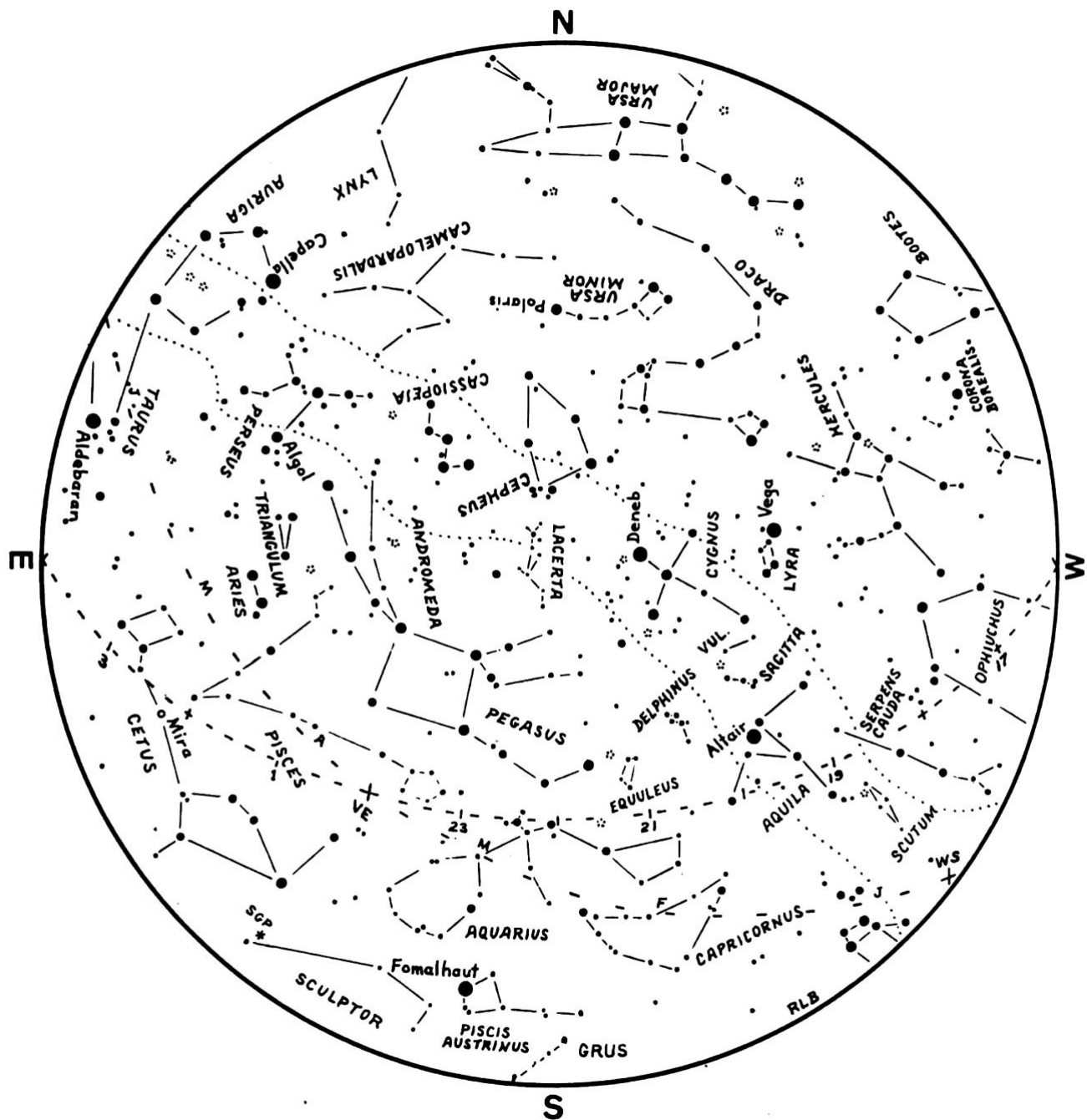
(Adapted from *Nightwatch* by Terence Dickinson, see Handbook p. 10.)



RASC OBSERVER'S HANDBOOK 2024 – STANDARD EDITION

Time (UT)			SEPTEMBER EVENTS		Jupiter's Satellites	
d	h	m			West	East
Mon.	1	7	Venus 1.5° S of Beehive (M44)		1.0	Europa
Tue.	2				2.0	
Wed.	3	1 15	Algol at minimum		3.0	
Thu.	4	14	Pluto 0.06° N of Moon, occultation ¹		4.0	Io
Fri.	5	22 04	Algol at minimum		5.0	
Sat.	6	5	Uranus stationary		6.0	Callisto
Sun.	7	18 09	Mercury at greatest heliocentric lat. N full Moon Total Lunar Eclipse (p. 132)		7.0	
		23 08	Moon at ascending node		8.0	Ganymede
Mon.	8	18 53	Algol at minimum		9.0	
		20	Saturn 4° S of Moon		10.0	
		22	Neptune 3° S of Moon		11.0	
Tue.	9				12.0	
Wed.	10	12	Moon at perigee (364 777 km)		13.0	
Thu.	11	15 42	Algol at minimum		14.0	
Fri.	12	8	Mars 2° N of Spica		15.0	
		22	Moon 1.0° N of Pleiades (M45)		16.0	
Sat.	13	11	Mercury in superior conjunction		17.0	
Sun.	14	10 33	last quarter		18.0	
		12 31	Algol at minimum		19.0	
Mon.	15				20.0	
Tue.	16	11	Jupiter 5° S of Moon		21.0	
Wed.	17	9 20	Algol at minimum		22.0	
		18	Moon 2.0° N of Beehive (M44)		23.0	
Thu.	18				24.0	
Fri.	19		Jupiter at ascending node		25.0	
		12	Zodiacal light vis. in N lat. in E before morning twilight for next two weeks		26.0	
		12	Regulus 1.3° S of Moon, occultation²		27.0	
		13	Venus 0.8° S of Moon, occultation³		28.0	
Sat.	20	3 03	Venus 0.5° N of Regulus		29.0	
		6 09	Double Shadows on Jupiter		30.0	
		23 13	Algol at minimum		31.0	
Sun.	21	6	Moon at descending node			
		19 54	Saturn at opposition			
			new Moon (lunation 1271)			
			Partial Solar Eclipse (p. 134)			
Mon.	22	18 19	Equinox			
Tue.	23		Mars at descending node			
		2 58	Algol at minimum			
		13	Neptune at opposition			
		15 59	Double Shadows on Jupiter			
		22	Spica 1.1° N of Moon, occultation⁴			
Wed.	24	15	Mars 4° N of Moon			
Thu.	25	11	Pallas stationary			
		23 47	Algol at minimum			
Fri.	26	10	Moon at apogee (405 548 km)			
Sat.	27	4 56	Double Shadows on Jupiter			
		18	Antares 0.6° N of Moon, occultation⁵			
Sun.	28	20 36	Algol at minimum			
Mon.	29	23 54	first quarter			
Tue.	30		Mercury at descending node			
		17 53	Double Shadows on Jupiter			

¹Madagascar, most of Australia, southeasternmost SE Asia, Melanesia, most of Micronesia.



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.

Comet Petriew Monument Unveiling

Pierre Schierle

On August 17, 2001, while observing at the Saskatchewan Summer Star Party (SSSP), Vance Petriew discovered Comet 185P/Petriew. The following year a stone cairn was unveiled at the entrance to the Meadows Campground at Cypress Hills Interprovincial Park (CHIPP). Over the subsequent 20+ years the cairn deteriorated and needed major repairs or replacement.

The cairn was an important public outreach tool so at SSSP 2023, a major fundraiser was launched. We investigated the structure of the cairn and determined a complete replacement was required. This led to the design of a new monument with a metal pedestal and bronze plaque along with a sign to draw attention to the historical marker. Just over \$10,000 was raised to complete the project thanks to donations from 36 individuals and major donations from SSSP, RASC Saskatoon and Regina Centres, and CHIPP. Thank you to all of you who have made this a reality!

An unveiling ceremony was held on Friday, August 22, 2025 at 3:30p during the SSSP. The Master of Ceremonies was Royce Pettyjohn, CHIPP Park Manager. The program included:

1. Mimi Martin speaking on the impact of the comet discovery on the Park, including the Park's designation as a Dark-Sky Preserve.
2. Pierre Schierle, Regina Centre President, speaking on the fundraiser and project development, including a thank you to the donors.
3. Les Dickson, Saskatoon Centre President, speaking on the discovery's impact on the star party.
4. Vance Petriew, the comet discoverer, speaking on the discovery and his personal thank-yous.
5. Unveiling of the plaque and sign by Vance, Mimi, Pierre, and Les.
6. Custom comet themed cake for everyone.

Approximately 120 people attended including Shawna Smuk, SW Regional Director for SaskParks.

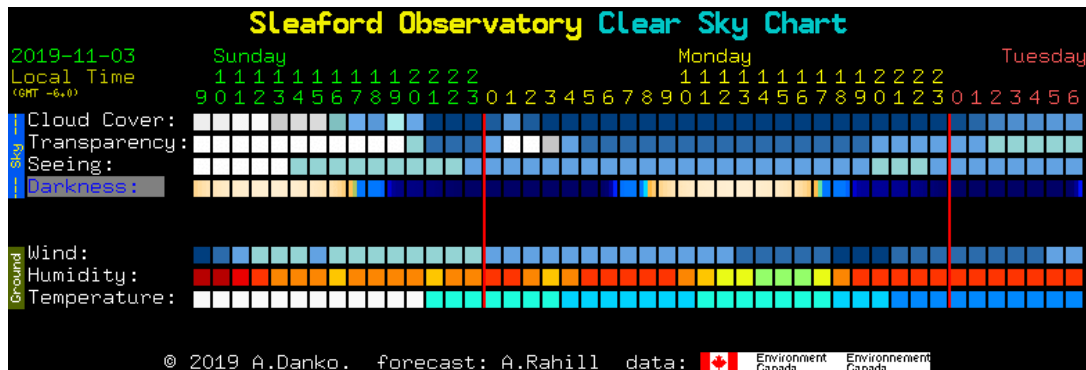


CLEAR SKY AND WEATHER INFO

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

PRESIDENT'S MESSAGE

Brent Burlingham

My term as president of the RASC Saskatoon Centre is coming to a close, and I wanted to take this opportunity to look back on the club's progress over the last two years, and to look to the future of our centre.

The club was at a standstill coming out of COVID. Our core activity of public outreach was non-existent, and public interest in the club was waning as a result. The reestablishment of public meetings, and the change of venue to the U. of S. Observatory helped to reinvigorate the club and our core mission.

Thanks to increased member participation, we took advantage of many opportunities to share our passion for astronomy with the public. New partnerships with the Meewasin Dark Skies initiative, headed by Tim Yaworski, have provided new outreach avenues. Cooperation with the U. of S. in their outreach efforts through the SuperDARN (Super Dual Auroral Radar Network) group, the City of Saskatoon's Open Doors program at the Observatory and the U. of S. Science Rendezvous event afforded new outreach audiences. Club participation in these events has been enthusiastic and infectious.

A new avenue for outreach through the Girl Guides and their Science Badge was initiated and indicates possibilities for future activities with the Girl Guides and Scouts.

Utilization of our dark sky site at Sleaford (a long-standing collaboration with the U. of S.) enjoyed a boost from the new group of imaging enthusiasts in the club. Maintenance of the site (which takes a huge effort from club members, often taken for granted by the membership) continued with the addition of new agreements with the RM of Colonsay for snow removal and grass cutting.

One of our most important yearly activities, the Saskatchewan Summer Star Party in Cypress Hills, was an unqualified success for the past several years. This is due to the dedication and hard work of the SSSP chairs (Les Dickson and Richard Huziak) and the SSSP committees in Saskatoon and Regina. Thank you for all of your hard (and often unappreciated) work to make this event such an amazing opportunity for the astronomical community.

I would like to thank everyone on the club executive and those in key support positions for their invaluable contributions to our success over the last two years. It has been an honour and a pleasure to work with you all.

Speaking of the executive, our club Annual General Meeting and elections are scheduled for next month's October 20th meeting at the U. of S. Observatory. I would encourage any members who haven't participated actively in the club to consider offering to help out with the club in an executive or coordinator position.

The centre will thrive and grow only if our membership continues to contribute. It is your club!

Clear Skies!

SSSP 2025

Les Dickson - Organizing Committee Chair

The 28th Saskatchewan Summer Star Party was another success! The over 300 attendees enjoyed several nights of clear skies and all that our daytime activities had to offer.

We were pleased to have a diverse and interesting roster of presenters this year. Professor Chris Herd of the University of Alberta in Edmonton gave the Fr. Lucian Kemble Memorial Lecture on *The Search for Life on Mars: NASA's Perseverance Rover Mission*. He was well-qualified to speak on the subject as he in a leadership role in the selection, collection, and documentation of samples acquired by this NASA mission. Kierstin Anderson and Mahd Siddiqui of the RADSAT-SK2 Team from the University of Saskatchewan talked about their first RADSAT-SK CubeSat mission in 2023 and the upcoming RADSAT-SK2 mission to be launched in 2026. Kimberly Sibbald gave the Thursday evening "Under Living Skies" Public Lecture on *What is Night Photography: An Introduction to Astrophotography*. Jeff Swick of our Centre revived the *Telescope Walk-about*, a daytime tour showing off much of the different telescope equipment scattered around the main Meadows Campground. Our own Nick Larsen gave a 2-hour condensed version of his workshop on astrophotography imaging workflow and post processing using the SIRIL software package. This clinic proved to be quite popular as the Yurt classroom was filled to capacity. Ron Waldron of Saskatoon and Jack Milliken of Calgary gave evening observing clinics under the stars. Jack was a real trooper as he gave the clinic the day after he suffered an injury while setting up his equipment in the Meadows. He is healing nicely, and we appreciate his dedication. Jennifer Petriew of White City SK and Joelle Sheard of Saskatoon organized the Kid's Workshop on Saturday morning, where they made their own CubeSat models inspired by the RADSAT-SK2 presentation. Along with the talks, we had a Thursday afternoon BBQ organized by Barb Wright of Calgary (formerly of Saskatoon) and an enjoyable banquet prepared by the Resort staff.

SSSP, the Regina Centre and the Park staff hosted a ceremony at the entrance to the Meadows Campground on Friday afternoon to unveil the new Comet Petriew Cairn. More details are provided in the accompanying article by Pierre Schierle of the Regina Centre.

We appreciate the cooperation and contributions from the Cypress Hills Interprovincial Park staff, especially Royce Pettijohn and Mim Martin. We thank staff of the Resort at Cypress Hills, including Wes Eng, Melanie Morris and Olivia Brownlee. Thanks to *All-Star Telescope* and others for contributions to our popular door prize draw. *Devil's Head Coffee* has donated coffee again this year.

This yearly event would not take place without the efforts and dedication of the volunteers on the organizing committee and those working on-site. These include Rick Huziak, Ellen Dickson, Greg Fusick, Brent Harrold, Joelle Sheard-Patrick, George Charpentier, Pierre Schierle, Vance Petriew, Andrew Kostiuk, and me. Special thanks to Barb Wright of Calgary, formerly President of the Saskatoon Centre, for stepping up to run our BBQ this year. Work on SSSP starts in October and takes hundreds of hours and thousands of emails and phone calls to organize the event. But SSSP only happens thanks to the efforts of dozens of participant volunteers who give their time annually to make it work on site. Thanks to all!



RASC SASKATOON CENTRE ELECTIONS

Brent Burlingham

NOTICE - AGM & ELECTION OF OFFICERS

Official Notice to the Members of the Saskatoon Centre of the Royal Astronomical Society of Canada (RASC).

Annual General Meeting and Election of Officers - To be held on October 20, 2025 starting at 8:15 pm at the U. of S. Observatory (108 Wiggins Ave., University of Saskatchewan Campus) and by Zoom video teleconference.

Anyone in good standing with the Saskatoon Centre can be nominated for and run for a position as an Officer on the Executive Council. For more information, contact President Brent Burlingham or the Nominating Committee (that will be formed at the September General Meeting). More information on open positions and job descriptions will be published in the September and October newsletters.

Please note that the positions of President, Vice-President, Secretary, and Treasurer will need to be filled in the Centre elections coming up this October.

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

RASC OBSERVER'S HANDBOOK 2023 – STANDARD EDITION

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>