

Saskatoon Skies

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

Volume 53, Number 09

October 2022



Royal Astronomical Society of Canada
Saskatoon Centre Incorporated
Box 31086, RPO Broadway
Saskatoon, SK S7H 5S8

WEBSITE: <https://saskatoon.rasc.ca/>
E -MAIL: sk_centre@rasc.ca
FACEBOOK: [RASC Saskatoon Centre](#)
INSTAGRAM: [@RASCYXE](#)

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

In This Issue:	
Membership Information / Officers of the Centre	2
Newsletter Info / U of S Observatory Info	3
Calendar of Events & Meeting Info	4
Speaker Ideas / Minutes of September Meetings / Astronomy Night	5-9
October Night Sky Events & Info / SSSP 2022 Competition	10-12
Observers Group Coordinator	13
Clear Sky Chart / Weather Info / Light Abatement Info	14
Sleaford Open House	15
Saskatoon Centre October Elections / Dark Skies at the Creek	16
Books For Sale / RASC Calendars	17
National Council Report	18
Observing Certificates & Clubs	19-20

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
- Journal of the RASC (electronic format)
- 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
- SkyNews Magazine (bimonthly)

SASKATOON CENTRE'S MAIN OFFICERS:

President – *vacant*

Vice-President – *vacant*

Secretary – Rick Huziak

Treasurer – Donna-Lee May

National Council Rep – Les Dickson

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 INFO

Newsletter Editor – Colin Chatfield

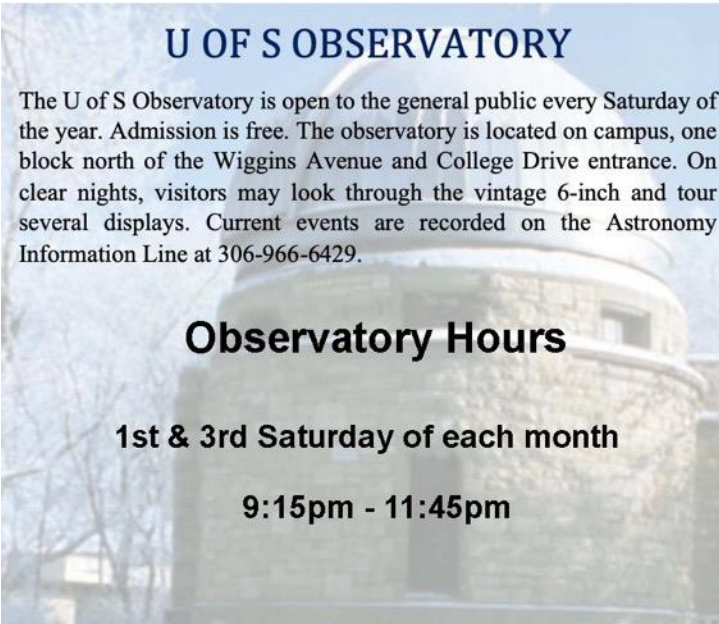
Copy & Collate – Les & Ellen Dickson

Labels & Temps – Mark de Jong

Web Posting/Content Editor – Gord Sarty/Tenho Tuomi

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 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.



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

1st & 3rd Saturday of each month

9:15pm - 11:45pm

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

Oct 17	RASC Saskatoon Centre General Meeting	Rick Huziak
Oct 22	Observer's Group - Sleaford Observatory	Larry Scott

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>

October RASC General Meeting

for all members and guests

Join us on October 17th, 2022 at 8:00PM (Executive meeting at 7:00pm)
Webinar (info below)

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 - "SSSP 2022 (25th Anniversary)"** - Les Dickson will go through how SSSP went using photos from George Charpentier. Les can also show the Photo and Sketch competition entries and winners.

"What's Up This Month" - Colin Chatfield & Tara Magee

NEED SPEAKER IDEAS

Rick Huziak

For as much as I can, I'd like to feature members of our Centre at General meetings. In this way, we get to know each other's interests better, for the better good of the Centre. However, bringing in speakers from other places for some of our meetings is also of interest. So, I will certainly entertain ideas from members for whom they'd like to hear from. My only hesitation to bring in speakers (via Zoom) is that we should reciprocate by providing talks to their Centres or clubs, or we should offer some sort of payment for their services, even if token. Ideas can be anything astronomy or space science or related topics. So let me know your interests or favourite presenters and I'll see what I can do. If you'd like to give us a 5-minute to 45-minute talk once every few years, let me know so I can book you in. Right now, we need speakers for November, December and all of 2023, so our cupboard is currently bare. rickhuziak@shaw.ca

MINUTES OF SEPTEMBER MEETINGS

Rick Huziak

Minutes of the Monthly Executive Meeting RASC Saskatoon Centre Monday, September 19, 2022 - 7:00pm - Online (ZOOM)

Attending: Les Dickson, Donna-Lee May, Rick Huziak, Darrell Chatfield, Patty Gakis, Tenho Tuomi, Grant Ursaki, Mike Dolan, Mark de Jong.

- 1. Call to order** 7:05 pm – Les Dickson.
- 2. Approval of the June Executive meeting minutes** as circulated in the July (Summer) newsletter. **Moved:** Donna-Lee May. **Seconded:** Darrell Chatfield. **CARRIED.**
- 3. Approval of the Special (August 8) Executive meeting minutes** as circulated in the September newsletter. **Moved:** Donna-Lee May. **Seconded:** Les Dickson. **CARRIED.**
- 4. Call for additional announcements/items** to add to agenda – Les Dickson. None added.

Old business

5. Sleaford

- **Insurance claim** update for Sleaford shed break-in– Darrell Chatfield. Communicated with insurance provider - waiting for adjustor to return the call.
- **Sleaford shed is fixed**– Darrell Chatfield. Aug. 3: Co-op did shed repaired. Some extra materials from the original build were used to reduce cost. A shallow ramp was added to the shed by Darrell & Colin Chatfield to protect the door sill/weather seal.
- **Riding mower is repaired** – Darrell Chatfield. Colin & Darrell fixed what was required to make the mower work well. Other hand mowers were also serviced.
- **Purchase of replacement snowblower** – Darrell Chatfield. Darrell is looking at replacement mowers. Donna-Lee needs quotes and the insurance offer so it can be assessed for fairness of offer. Darrell will provide this to Donna-Lee later in the week of Sept. 19. The mower and costs to be reviewed at the October meeting and a motion made to purchase.
- **Other maintenance at Sleaford this summer** – Darrell Chatfield. Please assure all repairs are within the 2021/22 Sleaford budget.
- **Rekeying of Sleaford** – Darrell Chatfield – deferred to a later meeting.
- **Power plug upgrades at Sleaford** (off of Roll-off) – Darrell Chatfield – approximately \$400. Darrell can do - deferred to a later meeting.
- **Telephone at Sleaford has been removed** – Darrell Chatfield. Darrell will look into a phone charger in the Warm-up Shelter.

6. **October Elections** – Les Dickson. **Les Dickson moves to open nominations for the Executive to be voted on at the October General Meeting. Seconded:** Donna-Lee May. **CARRIED.** Donna-Lee May asks if a committee has been struck for a phoning tree. Les & Donna-Lee volunteer for the Committee.

7. **Telescope Donation** – Rick Huziak. A 10” Meade telescope & accessories has been donated by former member Nevin Hanning. It needs to be inventoried and dispositioned for use. It is currently in the U of S Observatory. Two other members would like to donate three other small telescopes. These scopes should be available for the Telescope Loaner Program. More scopes than we can use should be looked at by the Executive to decide if these can be used or can be sold with permission of the donator.

8. **2021 - 2022 Year End**– Donna-Lee May. Year end is Sept. 30. All receipts and reported expenditures must be into the treasurer by Sep. 25 (no exceptions) and hopefully much before. If there are any delays, Donna-Lee must know as soon as possible.

9. **Sleaford Open House, October 1** – Patty Gakis – Poster is out for review. Patty is looking for a budget for advertising. **Motion:** Patty Gakis: To spend \$50 for advertising for the Oct. 1 Sleaford Open House. **Seconded:** Darrell Chatfield. **CARRIED.** Needs

volunteer for media, posters, coffee & signage. Signage for Open House/Sleaford – Rick will get quotes for permanent signage. Members to arrive 6 p.m. (mini-social). Open House starts 7:30pm. No cavalcade.

10. **Classical Conversations International School request for support** (Ciska Du Toit) – Patty Gakis. (New business) – Requests solar scopes for October 17 (Mon.) or 19 (Wed.) morning for one class. 30 kids K – 12. Rick volunteers for white-light solar. Hopefully we can get an H-alpha scope.
11. **Sept 11 National Council Meeting – Les Dickson** – Les will do an article for the October newsletter. CRC checks discussed at National Council meeting and that more crucial is when someone is left in charge with no other supervision. To be discussed more.

New Business: None

12. **Call to adjourn – Moved:** Patty Gakis. 8:02 PM. **Adjourned.**

Minutes of the Monthly General Meeting RASC Saskatoon Centre Monday, September 19, 2022 - 8:00pm - Online (ZOOM)

11 members on-line at beginning of meeting.

1. **Sharing / Networking Time** 8:02 PM – all members
2. **Call to order** – 8:19 PM – Les Dickson
3. **Call out to new members/guests:** (introductions during public session.) – no new introductions.
4. **Adoption of the June General Meeting minutes** as circulated in the September newsletter. **Moved:** Colin Chatfield. **Seconded:** Ellen Dickson. **CARRIED.**
5. **Executive meeting summary** – Les Dickson
 - **Sleaford Observatory** update – Darrell Chatfield summarizes Sleaford updates. See Executive Meeting minutes for summary.
 - **Oct 1 Open House at Sleaford** – Patty Gakis – 6 pm members arrival for mini-social & set-up. 7:30 pm guests arrive. Patty will print posters for distribution. Event is weather permitting.
 - **Elections of the new Council is in October** – Need to fill President and Vice-president. Les & Donna-Lee are the Nominating Committee.

6. Committee Reports

- **SSSP Committee** – Rick Huziak. Over 300 attended. The star party went well, with 6 observable nights in a row. Speakers and clinicians were acknowledged.

7. New Business:

- **Loaner Scopes** – Donna-Lee reports on Ike Thiessen's written report. Fee of \$20 per month (increase) helps to have people return used scopes. One scope doesn't have a Telrad. **Donna-Lee May - Motion: For \$75 to allow Ike Thiessen to purchase a Telrad for a loaner scope** (if he needs a budget extension.) Les: **Seconded: Les Dickson. CARRIED.**
- **Corporations Branch** – Mike Dolan asks if our status has been restored. Donna-Lee is working with the Branch to sort out why they are delayed in reapproval even though they had cashed our cheques on time.

8. Programs:

- *The Upcoming Sky* – Colin Chatfield
- **Main Program: Spruce Woods Provincial Park – Canada's 27th Dark-sky Preserve** – Rick Huziak

9. Call to adjourn – 9:24 PM. Moved: Les Dickson. CARRIED

Minutes of a Special Executive Meeting RASC Saskatoon Centre Oct. 2, 2022, 8:00pm - Online via Zoom

Attendees: Donna-Lee May, Les Dickson, Rick Huziak

1. Call to order - 8:04 pm

2. State of Insurance Claim. Donna-Lee. There is a percentage deduction on assets according to the terms of the policy and the offer works out exactly to the terms. (The insurance will pay for shed repairs and the greater portion of the snowblower replacement cost). Donna-Lee May: **Motion** to accept of insurance claim offer of \$5,072.84 to close the claim. **Seconded: Les Dickson. CARRIED.** (Breakdown is as follows: Shed repair: \$3,394.44 (GST not refunded) + snowblower: \$2,678.40 (depreciated cost) - deductible \$1,000.00 = \$5,072.84).

3. Replacement of snow blower – Rick Huziak & Larry Scott will get additional quotes. Darrell Chatfield has two quotes. Larry recommends we purchase the same model since snow conditions require a quality blower. (Insurance amount will be approximated \$1000 short of full replacement cost for the same model, should this model be purchased). Options will be presented to the new Executive.

4. Donna-Lee May & Rick Huziak will update the **Centre Assets List** so that asset value and depreciation can be accurately tracked, and that capital equipment replacement can be better planned for. (The amount within the term deposit can be set aside to cover such future expenses.)
5. **Insurance renewal review** – Insurance policy renewal is due October 11. The Centre will renew as it, but Donna-Lee May suggests we review our inventory such that appreciated costs can be included in the coverage. The *Review* will be presented to the new council, who can update the *policy* as required. (The *policy* can be updated at any time).
6. **October 1st Sleaford Open House signage** – Donna-Lee May: **Motion** - To allow Darrell to spend up to \$60.00 for directional signage required for the Sleaford Open House. **Seconded:** Les Dickson. **CARRIED.**
7. **Acceptance of Nigel West's offer of a donation.** We will accept the telescopes to include in the *Telescope Loaner Program*. Ike will pick them up from Nigel and provide us with information so that we can properly inventory them. We recommend that the Incoming Executive create a Policy around donations so that the donations are properly evaluated for need by the Centre.
8. **Oct 28 (Friday) MVA Dark-sky Event** at the **Beaver Creek Conservation Area** request. Rick Huziak (with Patty Gakis) will respond in that the Centre will cover the event. The event will occur after the *Centre Elections* and will be transferred to the new Activities Coordinator.
9. **Motion to adjourn.** Les Dickson - 9:37 PM. **CARRIED.**

ASTRONOMY NIGHT

Tenho Tuomi

Astronomy Night at the Lucky Lake Library on October 3rd. 50 people were in attendance; the biggest crowd that there has been for an astronomy night since I started keeping annual astronomy nights at the library in 2009. A couple big draws were the astronomy crafts that the librarian had for all the children, and the great advertising that she did. Thanks to those who brought cookies. Picture below by the librarian, Deena Nelson, at the library of my starter 4.5 inch scope on the Dobsonian mount made by Garry Stone. We looked at the Moon, Jupiter and Saturn.

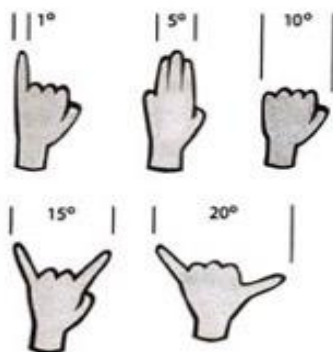


OCTOBER NIGHT SKY EVENTS AND INFO

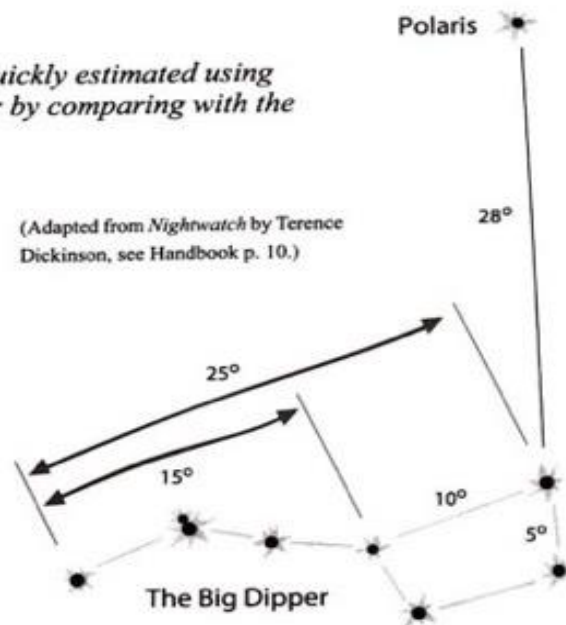
Images on the next few pages taken with permission from the 2021 Observer's Handbook. It can be obtained by joining the RASC here <http://rasc.ca/join> or ordered from <https://secure.rasc.ca/Portal/Shop/RASC/Store/StoreMain.aspx?Category=CURRPUB>


















HANDY SKY MEASURES

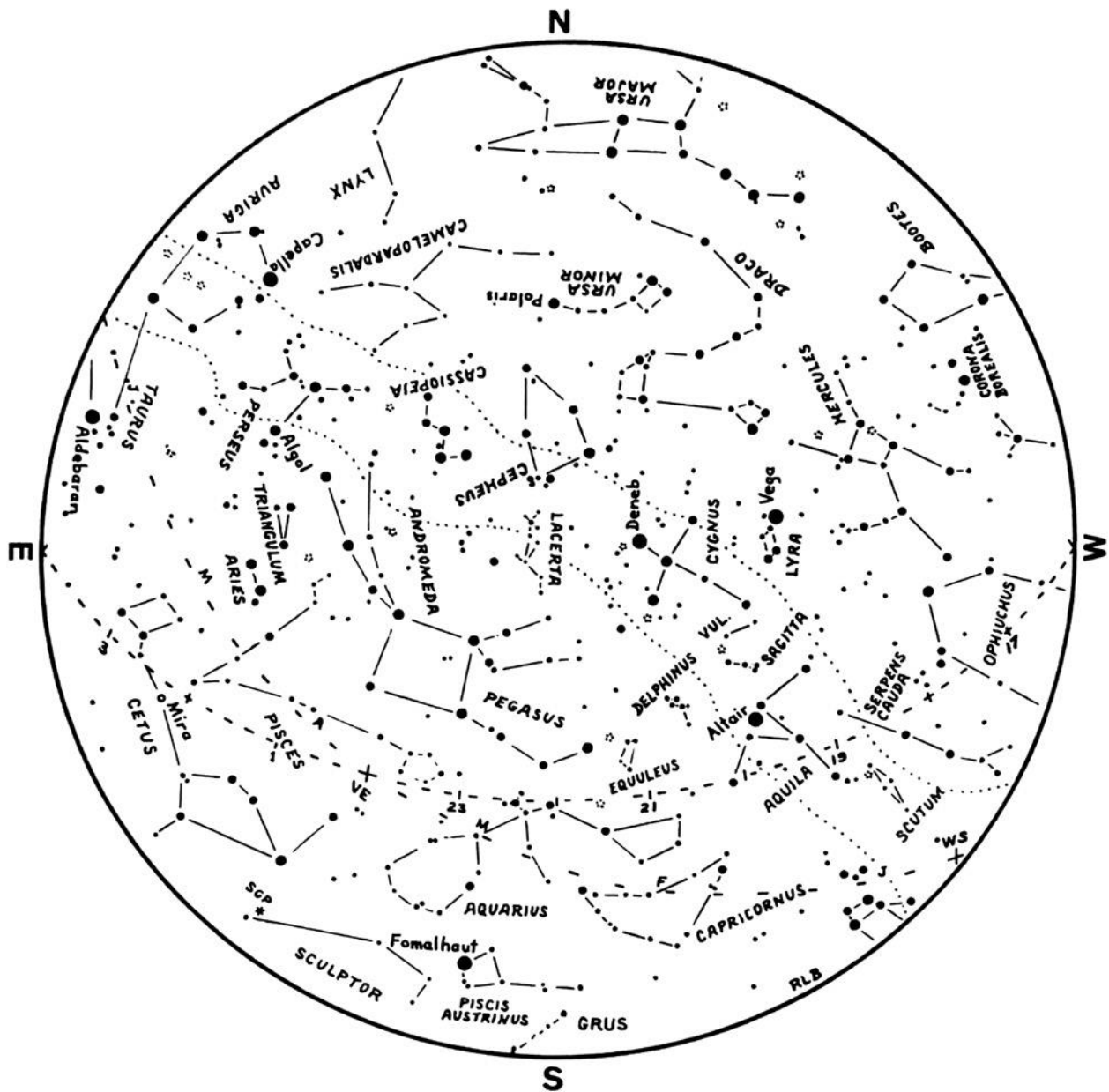
Angular measure in the sky can be quickly estimated using the fingers of an outstretched arm, or by comparing with the star separations in the Big Dipper.



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



Time (UT)			OCTOBER EVENTS	Jupiter's Satellites	
d	h	m		West	East
Sat.	1	15	Mercury stationary		1.0
Sun.	2		Mercury at ascending node		
		10 14	Algol at minimum		2.0 Europa
Mon.	3	0 14	first quarter		
Tue.	4	17	Moon at perigee (369 325 km)		3.0
Wed.	5	7 03	Algol at minimum		
		16	Saturn 4° N of Moon		4.0 Io
Thu.	6		Mercury at perihelion		
Fri.	7	6	Vesta stationary		5.0 Ganymede
Sat.	8	3	Neptune 3° N of Moon		
		3 52	Algol at minimum		6.0
		18	Jupiter 2° N of Moon		
		21	Mercury greatest elongation W (18°)		7.0 Callisto
Sun.	9	20 55	full Moon		
Mon.	10				8.0
Tue.	11	0 41	Algol at minimum		
Wed.	12	7	Uranus 0.8° S of Moon, occultation†		9.0
		14 43	Double shadow transit on Jupiter		
Thu.	13	21 30	Algol at minimum		10.0
Fri.	14				
Sat.	15	5	Mars 4° S of Moon		11.0
Sun.	16	18 19	Algol at minimum		
Mon.	17		Mercury at greatest heliocentric lat. N		12.0
		10	Moon at apogee (404 328 km)		
		16	Pollux 1.8° N of Moon		13.0
		17 15	last quarter		
Tue.	18				14.0
Wed.	19	0	Juno stationary		
		15 08	Algol at minimum		15.0
		17 19	Double shadow transit on Jupiter		
Thu.	20		Mars at ascending node		16.0
Fri.	21	18	Orionid meteors peak		
Sat.	22	11 57	Algol at minimum		17.0
		21	Venus in superior conjunction		
Sun.	23		Zodiacal light vis. in N lat. in E before morning twilight for next two weeks		18.0
		9	Saturn stationary		
Mon.	24				19.0
Tue.	25	8 46	Algol at minimum		
		10 49	new Moon (lunation 1235)		20.0
			Partial Solar Eclipse (p. 131)		
Wed.	26	20 20	Double shadow transit on Jupiter		21.0
Thu.	27				
Fri.	28	5 35	Algol at minimum		22.0
Sat.	29	15	Moon at perigee (368 290 km)		
Sun.	30	11	Mars stationary		23.0
Mon.	31	2 23	Algol at minimum		



SSSP PHOTO & SKETCHING COMPETITION

Below is the link for those who would like to see the entries for the SSSP 2022 photo and sketching competition (the 2021 compilation is there too) -

<https://www.youtube.com/channel/UC4VWaxmSbVsiqqYheVHD4EQ/videos>

OBSERVERS GROUP COORDINATOR(S) NEEDED

Larry Scott

The Saskatoon Centre of the RASC is seeking one or more volunteers to take over the Observers Group Coordinator/Yard Monkey position currently held by me (Larry Scott). This position has many perks - fresh air and exercise in beautiful surroundings; works in close proximity to many bird species, butterflies, racoons, deer and gophers; the appreciation of your fellow club members; free parking; and more! Below is a list of opportunities for energetic club members that need to be passed on or not as the club sees fit.

If possible I would continue doing this for years but I'm planning a move in a few years and simply won't be here. My hope is to give the club time to consider its options and that I can pass on some tips to whomever(?) comes next.

Observers Group Coordinator

- Set schedule for Observers Group based on dark skies(new moon) and not on a long weekend.

(Also Messier Marathon)

- Interpret weather reports to base a go/no go decision the day of Observers Group and notify club members.

Yard maintenance

- Mow grass or blow snow as required so yard is useful and combustibles near buildings are kept to a minimum.

- Care and feeding of snow blower and lawn mowers. ***Important***

Key Master

- Give tours of Sleaford to club members and hand out keys to the kingdom.

Sleaford Open House

- Set a date

- Nag George for posters.

- Distribute posters

- Nag everyone to show up.

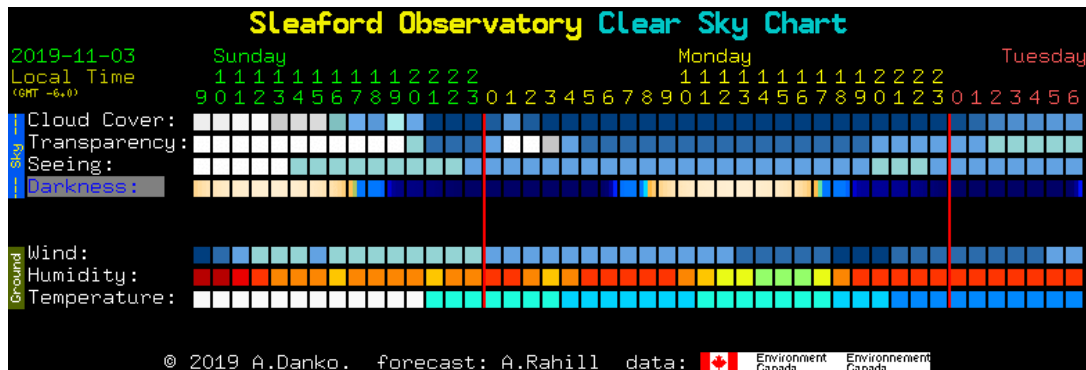
Starting in 2006 I began hosting Observer's Group meetings and as the years went on I accumulated some other responsibilities as listed above. Not sure if everything will be picked up by the members but I am hoping someone will step up to host the Observers Group and assist with these other responsibilities. Cheers for now, hope to see some of you out at Sleaford before I'm gone.

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

SLEAFORD OPEN HOUSE OCTOBER 2022

Les Dickson

The RASC Saskatoon Centre and the Physics and Engineering Physics Department of the University of Saskatchewan sponsored the annual Astronomy Night Open House at the Sleaford Observatory and Research Facility, situated 55 km east of Saskatoon near Colonsay. The public part of the event ran from 7:30 pm to 11:00 pm on October 1st.

The event was organized by Pat Gakis, our interim Activities Coordinator, and Donna-Lee May. Pat also did the advertising, producing posters with the help of George Charpentier and placing the event notice on Facebook. Darrell Chatfield produced signage to direct people from Saskatoon to the Observatory with a route that avoided the extensive roadwork on Highway 5 east of Saint Denis. The signs were placed with the help of Colin Chatfield. Daryl and Kim Janzen opened the University's roll-off observatory and conducted tours of the facility. Telescopes and binoculars were set-up by Les Dickson, Brent Gratias, Rick Huziak and Darrell Chatfield. Murray Strankay handled traffic control. Coffee, tea and snacks were provided by Rick Huziak, Les Dickson, Pat Gakis and Brent Gratias. Thanks for Darrell and Brent for the pre-event maintenance at the site, including cleaning out the washroom and composting toilet.

We were fortunate to have warmer than usual weather for early October and clear skies. The good weather likely helped with the great attendance of approximately 250 people. Given the number of attendees, it would have been helpful to have a few more members with their telescopes show up to help. There were long line-ups at the four telescopes and one binocular looking at Jupiter, Saturn, Mars, the Andromeda galaxy, and many other interesting objects in the night sky. Many people expressed their appreciation for the opportunity to view the night sky and visit our facility.



Very nice picture of the “gobbler nebula” located in the Tryptophan constellation. I saw this the other morning. It's new to the Messier list and only shows up around the **2nd Monday in October!!** Jokingly submitted by Mike Dolan.

SASKATOON CENTRE OCTOBER 2022 ELECTIONS

Rick Huziak

Well...it's elections time! It is the time of the year when we elect or affirm who in our club will lead us for the next one or two years. Leadership on all fronts is important and giving some volunteer time is greatly appreciated. For the last few years, we've had a challenge electing and retaining important positions, and we hope this year is different. Donna-Lee and Les will be calling around to encourage members to take on these leadership rolls, but that doesn't mean we will have all positions filled by the October 17th election. Key positions to fill are the President, Vice-President, Observing Coordinator, Activities Coordinator and Speaker Coordinator. Those are pretty critical positions (descriptions are in the September newsletter). Imagine the club trying to function without these positions filled...If you already have a support position, you might also consider trading that for one of these! Or, if you've never held a position in your Centre, this is a chance to provide your input and guidance. If you can help, please contact Donna-Lee d1m3star@telus.net or Les astrochem@sasktel.net before the meeting or log in to the meeting and hold your hand up!

It would also be great to have better online participation from all membership since for at least the next few months, we will retain our online-only meetings, and hopefully get back to in-person meetings in the new year, while likely streaming our meetings to distant members. But, as we said – this all takes volunteers!

DARK SKIES AT THE CREEK

Rick Huziak & Patricia Gakis

The Meewasin Valley Authority has invited us to conduct a talk and star night at the Beaver Creek Conservation Area (23 km south of Saskatoon on Highway 219). This is the continuing annual *Dark Skies at the Creek* event that has been postponed since 2019 by COVID-19. The event runs from 6 pm to 10 pm. We are planning the program as this newsletter is being produced, but likely the talk will happen at 7 or 7:30 pm for about 40 minutes then we would have our telescopes out for public viewing until 10. We will provide more details at the General Meeting and on our Facebook page, but please let Rick Huziak rickhuziak@shaw.ca know if you can help out. We could use a half-dozen telescopes or more. The MVA will pay an honorarium to the RASC. The event will proceed with only the talk if the weather does not cooperate, though it is always fun just to see telescopes close-up even if it is cloudy. We will set up just east of the Visitor's Centre.

BOOKS 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 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	(50.00) 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

2023 RASC CALENDARS



2023 calendars have arrived. If you want a 2023 RASC Calendar, we have a limited supply available for \$20 each. **Call Donna-Lee at 780-913-2785.** They can be picked up at her house in Saskatoon, or if you live away from Saskatoon, we can arrange to mail them out to you at a small additional cost.

NATIONAL COUNCIL REPORT OCTOBER 2022

Les Dickson

Membership fee Increase

As many of our members have noticed when they renewed their memberships, fees have increased. As of the Annual General Meeting of the RASC, the National portion of the membership fee increased \$15.00. The President, Charles Ennis, provided a rationale for the increase in the August 2022 Bulletin. While many members of the National Council (NC) have lamented that this increase may lead many members to not renew their membership and that the explanations given for the need to increase fees appear inadequate to some, NC discussions have focused on lack of consultation and advanced warning from the Board of Directors (BD). NC has been working with the BD to better define NC's advisory role and improve communications between the two bodies so that these "surprises" do not happen again.

Education and Public Outreach

This committee prepared documents on best practices for Centres doing public outreach. One of the concerns addressed in these documents was the need for Criminal Records Checks (CRC) for those members participating in Centre public events, either organized by the Centre or with the Centre participating in another organization's event. In this latest NC meeting, it was mentioned that the focus of this requirement was for those times when members would be working with children or vulnerable people when parents, guardians or other authority figure was not present. However, the consensus within the Executive of the RASC Centre is that CRCs are desirable for our members doing public outreach in all instances.

Centres Manual

For a number of years, a NC committee has been working on a handbook to "...to provide all RASC Centres with a written guide on best practices for running a Centre, as well as to provide information for people new to the job of running a Centre." They hope to have it out by the end of the year. I have looked at the draft versions and they contain much useful and relevant material. Rick Huziak and others have been maintaining and updating our own manual. I think some of the NC material could be incorporated into our own manual to provide guidance to new Executive members.



C/2022 R2 (ATLAS), Tenho Tuomi's 14th new comet for this year taken October 6. It was discovered on September 14 by the ATLAS robotic telescope. It is closest to the earth and sun this month so about as bright as it will get at magnitude 13. It was 1 au from earth and 0.75 au from the sun.

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. 314)
- THE FINEST NGC OBJECTS (p. 318),
- THE DEEP-SKY CHALLENGE OBJECTS (p. 322),
- DEEP-SKY GEMS (p. 324).

See www.rasc.ca/certificate-programs for details and contact the RASC Observing Committee Chair at [rasc.ca/contact/observing](http://www.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** for intermediate to advanced members. In addition, **Astroimaging certificates** are available for those members with a photographic bent. See www.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	96
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
---------------	----

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
Brent Gratias	

ISABEL WILLIAMSON LUNAR OBSERVING CERTIFICATE

Certified at 140 Objects:

T. Tuomi, N. Jensen

EXPLORE THE MOON CERTIFICATE

T. Yaworski

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 here <http://www.rasc.ca/explore-universe>

On-line Messier and Finest NGC lists, charts and logbooks:

<http://www.rasc.ca/observing>

On-line Herschel 400 List:

<http://www.astroleague.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>