

Saskatoon Skies

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

Volume 53, Number 07

Summer 2022



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: \$96.00 /year

Youth: \$52.00 /year

Family: \$90.50 + \$41/additional adult + \$21.10/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 Canadian Tire money please email Darrell at novachat@sasktel.net.

NEWSLETTER INFO

Newsletter Editor – Colin Chatfield

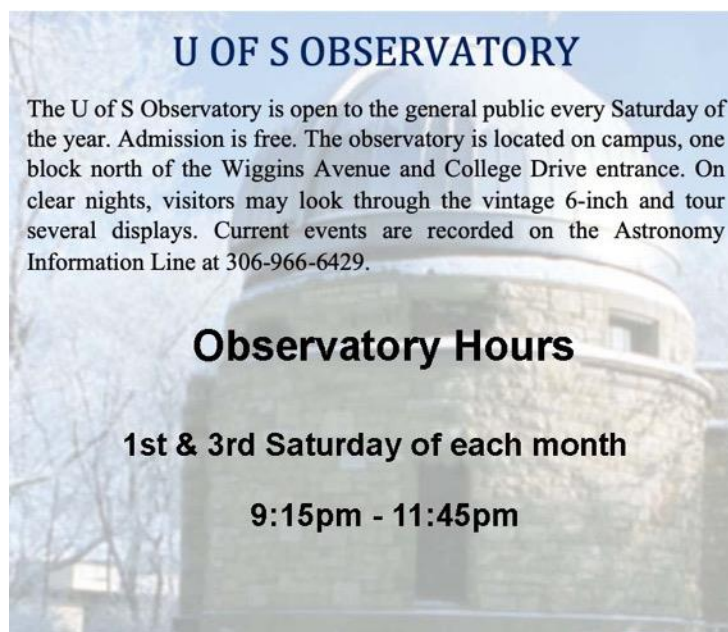
Copy & Collate – Les & Ellen Dickson

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

July 23	Observer's Group - Sleaford Observatory	Larry Scott
Aug 12	Perseid Meteor Shower peaks	
Aug 23 - 28	Saskatchewan Summer Star Party	Cypress Hills
Sept 19	RASC Saskatoon Centre General Meeting	Les Dickson

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 19, 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).

8:00pm - 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.

8:30pm - Main Program - TBD

ALWAYS NEED MEETING SPEAKERS

Rick Huziak

Hi everyone. The title of this article is *Always Need Meeting Speakers*. I titled the article that way because I always need meeting speakers. Right now, we need speakers for 10-minute slots for months May and June. Please volunteer to talk about your favourite topic. I already have main program speakers for these months.

Online meeting attendance is also pretty low for a club that has over 80 members. Online meetings are being held because of COVID, but our attendance is actually less than in-person meeting attendance before COVID. Online meetings attract between 12 and 18 people even though attending is technically easier, avoiding travel and parking. Current online meetings also fulfill an initiative we had previously discussed: transmitting in-person meetings to be on-line for members that are simply too far away to attend.

So, back to speakers. I am now looking for speakers for the fall, starting with the September meeting. If you do something “astronomical” over the summer, such as visit an observatory, do some astrophotography, participate in outreach, clean your mirror or read a good astronomy book, please make your experience into a talk for your club!

rickhuziak@shaw.ca

MINUTES OF JUNE MEETINGS

Rick Huziak

Minutes of the Monthly Executive Meeting RASC Saskatoon Centre Monday, June 20, 2022 - 7:00 pm - Online (ZOOM)

Attending: Donna-Lee May, Les Dickson, Rick Huziak, Ron Waldron, Darrell Chatfield, Tenho Tuomi, Jeff Swick, Mark de Jong, Colin Chatfield, Patricia Gakis, Grant Ursaki, Jim Wood.

1. **Call to order** 7:01 pm – Donna-Lee May.
2. **Approval of the May Executive Minutes** as circulated in the June newsletter. **Moved:** Donna-Lee May. **Seconded:** Ron Waldron. **Carried.**
3. **Call for additional announcements/items** to add to agenda – 16” Telescope recommendations moved to after the Financial Report in the agenda.

4. Old business/ Committee reports

- **Insurance claim** update for Sleaford shed break-in– Darrell Chatfield – Approval June 7 to get shed fixed. June 14 – COOP was contacted to order new door. COOP will be contracted to rebuild the shed.
- **Access and fixes to Sleaford shed** – Darrell Chatfield – Could be accessed removing the plywood. On June 11 a small crew went out. Mike Dolan attempted to repair the riding mower throttle cable. The riding mower needs carburetor servicing. Grass was cut by Larry Scott. Push mowers to be transported for service by Mini-tune for 3-year maintenance.
- **Purchase of replacement snow blower** – Darrell Chatfield – tabled to future meeting – no quote yet. Insurance offering \$2700 (We have a \$1000 deductible on our policy covering the entire claim).
- **Any maintenance at Sleaford this summer?** – Darrell Chatfield – Washroom floor still needs fixing. Give Donna-Lee an estimate if new work needs to be done.
- **Rekeying of Sleaford** – Darrell Chatfield (looking for budget/quote) – approximately \$400. Darrell can do but might need some professional rekeying services. Tabled until Sept.
- **Power plug upgrades at Sleaford** (off of Roll-off) – Darrell Chatfield (budget?) – approximately \$400. Darrell can do. Tabled until Sept.
- **Password protected website. has been created by Andrew Kostiuk** – comments deferred.
- **Centre Bylaws** - Les Dickson will review the state of bylaws and update the Bylaw Committee. Online bylaws do not reflect recent changes to National governance. Les will organize a meeting of the Committee over the summer.
- **Provincial registration status** - Donna-Lee May – Donna-Lee has contacted and is arguing regarding timing of payment, since they had payment before the registration was suspended. Province is reviewing.
- **Telescope Loaner Report** – Ike Thiessen has submitted a report (which is not part of these minutes) and \$100 rental cash.
- Discussion on **Criminal Records Checks** (CRCs) for members - Donna-Lee May. National (with respect to their insurance requirements) highly recommends CRCs. Les Dickson, Donna-Lee May, Patricia Gakis and Rick Huziak will get CRCs to lead the new procedure. **Motion** by Rick Huziak: That the Centre develops a procedure to have

outreach members obtain CRCs and that members who will do outreach will have a CRC. **Seconded:** Les Dickson. **CARRIED.**

- **Conflicts of Interest** - Les Dickson will find out if our policy needs to align with National policy. Les asked National but they do not have a specific policy. A recommendation by Mike Watson (National 2nd VP, RASC legal advisor) would have to be in line with Provincial laws. Les suggests we have a draft procedure by the September meeting.
- Reminder that **original receipts are necessary for reimbursement** of expenses – Donna-Lee May.

5. New business

- **Resignation of Tim Yaworski as Activities Coordinator** – Donna-Lee May. Donna-Lee thanked Tim for his service.
- **Acceptance of Patty Gakis as Activities Coordinator** – Donna-Lee May. **Motion** by Donna-Lee: Patty Gakis becomes the interim Activities Coordinator until the October elections. **Seconded:** Rick Huziak. **CARRIED.**
- **Sleaford Open House date** – Patty Gakis – Date needs still to be chosen.
- **Saskatoon Radio Club Amateur Radio Day in the Park** at Meewasin Park on July 3. RASC to do solar observing in conjunction with the Radio Club – Patty Gakis.
- **Social Media** review – Patty Gakis: Facebook is being handled by Colin Chatfield.
- Patty Gakis requests the current **Instagram account** that refers to the RASC be closed and it be reopened by Colin and Patty to better represent the RASC. Colin & Patty will meet.
- **Needs new signing authority for cheques** – Donna-Lee May. **Motion: Donna-Lee** – Moved that Les Dickson be our 3rd signing authority to replace Mike Dolan. **Seconded:** Ron Waldron. **CARRIED.**
- **Need Chair volunteer for September meeting** – Donna-Lee May – Les Dickson volunteers to chair the September meeting. (Rick Huziak has already agreed to do the October meeting.)
- **Assets list to be updated & valued** – Donna-Lee May – Members asked to report any assets. Donna-Lee will accumulate the list and properly value the assets with depreciation as required.

- **Treasurer's Report – report on cash-flow** - Donna-Lee May. Donna-Lee reported the quarterly statement. Note the Centre may show a deficit of approximately \$3100 for 2022 if the club does not find a way to raise funds or reduce expenses. The club currently runs at a deficit of approx. \$2000/year.
 - **16" Telescope Committee recommendations** – Ron Waldron. Darrell Chatfield reports there is a proposal to possibly inherit a donated observatory building. Recommendations deferred until the fall.
 - **Need an article about the State of the Centre in the summer newsletter** – Rick Huziak – Rick will write.
 - **Need an article announcing October elections in the September newsletter** - Rick Huziak – Rick will write.
 - **National Council report** – Les Dickson. The National General Assembly is the week of June 23. \$20 for on-line full access. National membership fee cost will most likely increase by \$15 per year (pending ratification at the GA) as of July 1. The centre portion remains the *same* amount as received previously.
 - **Cancellation of telephone land line at Sleaford** – Darrell Chatfield. **Ron Waldron:** Motion to remove phone service at the Sleaford Observatory. **Seconded:** Darrell Chatfield - **CARRIED.**
6. **Call to adjourn** – 8:04 PM. **Moved:** Donna-Lee May. **Carried**

**Minutes of the Monthly General Meeting RASC Saskatoon Centre
Monday, June 20, 2022 - 8:00 pm - Online (ZOOM)**

21 members on-line at beginning of meeting.

- 1. Sharing / Networking Time** – all members
- 2. Call to order** – 8:25 PM – Donna-Lee May
- 3. Call out to new members/guests:** (introductions during public session).
- 4. Adoption of the May General Meeting minutes** as circulated in the June newsletter. **Moved:** Ellen Dickson. **Seconded:** Grant Uraski. **CARRIED.**
- 5. Executive meeting summary** - Donna-Lee May
 - **Access to Sleaford Observatory** – See Executive minutes

- **16" Telescope** recommendation – decision on the fate of the telescope & observatory deferred to September.
- **Patty Gakis** is our new (interim) Activities Coordinator. Patty will announce new events through the summer. See Executive minutes for some programs already announced..
- **Elections of the new Council is in October** – please think about volunteering

6. Committee Reports

- **SSSP update** – Rick Huziak. SSSP is on track for a normal star party of approximately 320 participants. Full programming is being scheduled.
- **Service Awards** – Rick Huziak. Medals have not arrived yet.
- **Criminal Record Checks** – Les Dickson - will be required for members who will be doing outreach – a policy will follow. This is a National RASC requirement that affects insurance and our due diligence. See Executive minutes for details.
- **National Council** summary – Les Dickson – National General Assembly access is free June 24 - 27 but full agenda including programming and lectures is \$20. National membership fees increase as of July 1 by \$15/year pending ratification at the GA.

7. New Business:

- **2023 RASC Calendar orders** – let Donna-Lee know by the September meeting – Donna-Lee
- **Cancellation of land line phone at Sleaford.** – Phone will be removed since it is expensive, not used much and everyone has a cell phone.

8. Programs:

- *The Upcoming Sky* – Colin Chatfield
- **Main Program: *From City Lights to Deep Space: Deep sky observing from urban and suburban locations*** - Rod Mollise, Contributing Editor, *Sky & Telescope* magazine

9. Call to adjourn – 9:21 PM. Moved: Ellen Dickson. Carried.



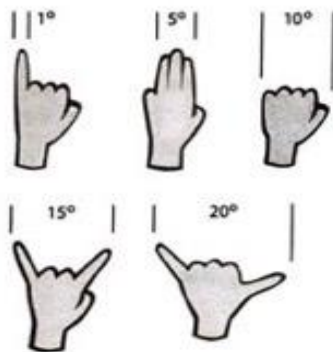
Shot prime with 1/1000th exposure on an 8" Newtonian from my back yard at about 11:30am, July 11th. Taken by Mike Dolan

SUMMER NIGHT SKY EVENTS AND INFO

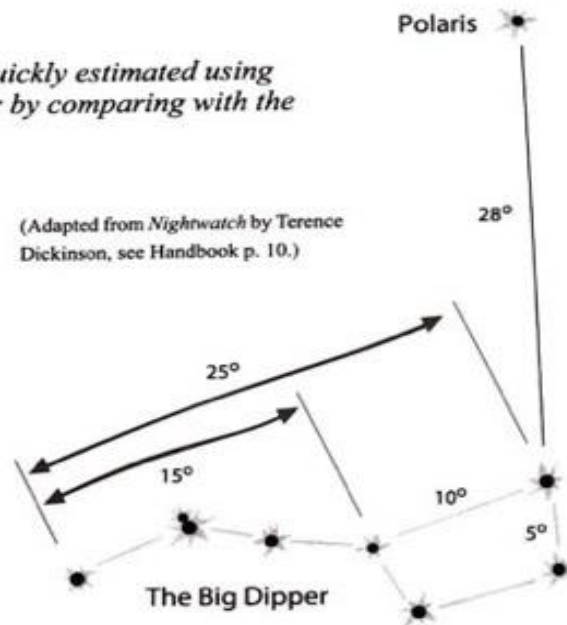
Images on the next few pages taken with permission from the 2021 Observer's Handbook. It can be obtained by joining the RASC here <http://rasc.ca/join> or ordered from <https://secure.rasc.ca/Portal/Shop/RASC/Store/StoreMain.aspx?Category=CURRPUB>


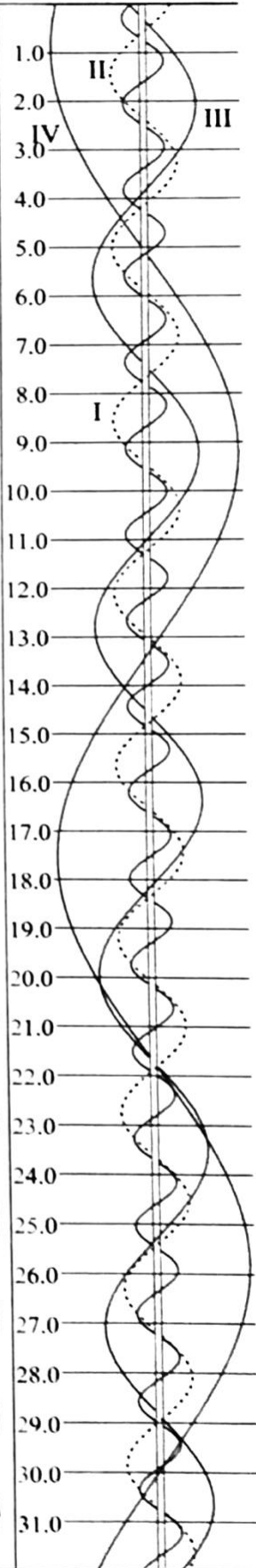
















HANDY SKY MEASURES


















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.

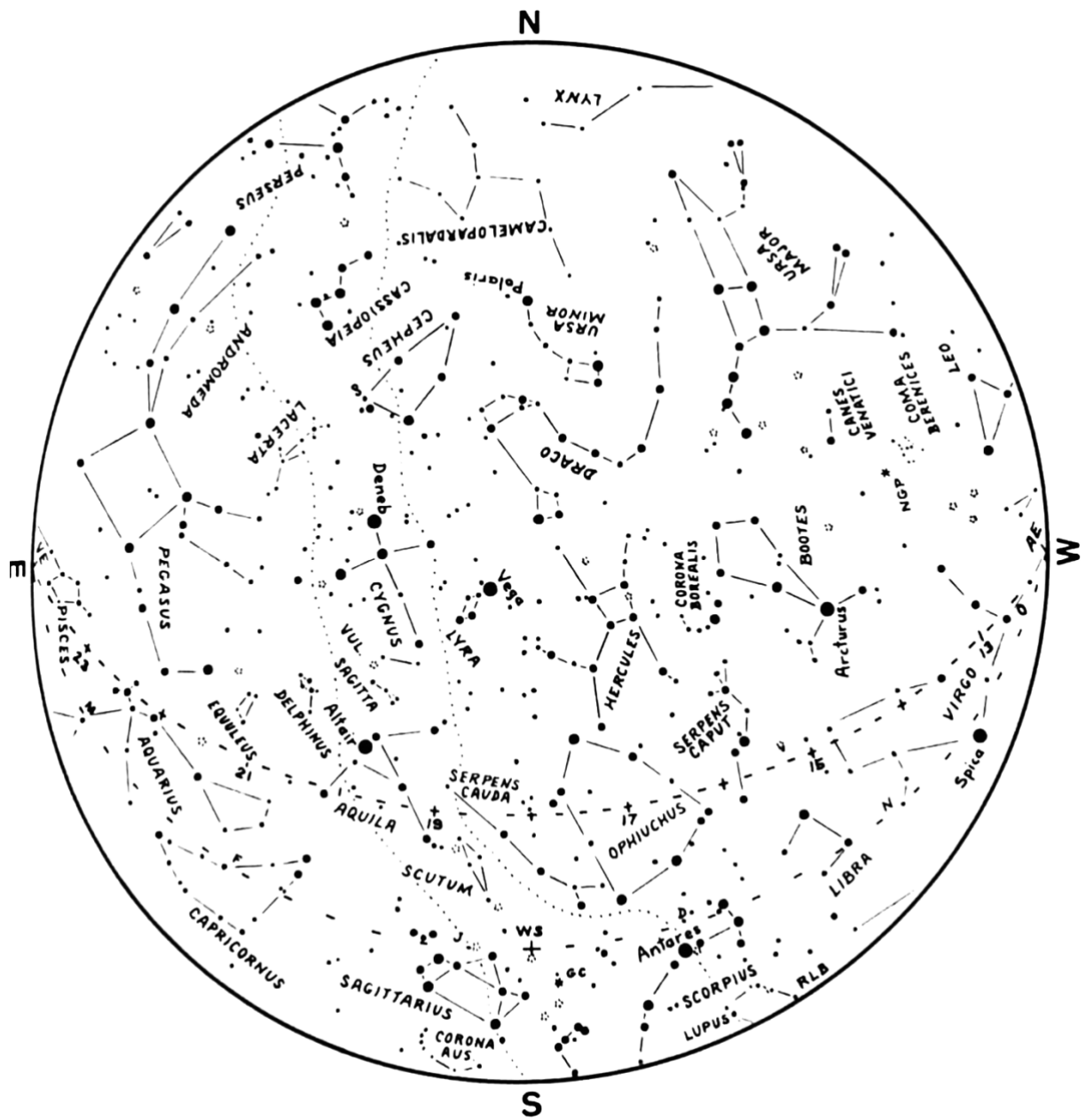


(Adapted from *Nightwatch* by Terence Dickinson, see Handbook p. 10.)



Time (UT)			JULY EVENTS		Jupiter's Satellites	
d	h	m			West	East
Thu.	1	21 10	Last quarter			
Fri.	2					
Sat.	3	12 26	Algol at minimum			
Sun.	4		Venus at greatest heliocentric lat. N			
		15	Uranus 2° N of Moon			
		20	Mercury greatest elongation W (22°)			
Mon.	5	15	Moon at apogee (405 341 km)			
		22	Earth at aphelion (152 100 527 km)			
Tue.	6	9 15	Algol at minimum			
Wed.	7					
Thu.	8	5	Mercury 4° S of Moon			
Fri.	9	6 04	Algol at minimum			
Sat.	10	1 16	New Moon (lunation 1219)			
Sun.	11					
Mon.	12	2 53	Algol at minimum			
		9	Venus 3° S of Moon			
		10	Mars 4° S of Moon			
Tue.	13		Mars at aphelion			
		7	Venus 0.5° N of Mars			
Wed.	14	23 42	Algol at minimum			
Thu.	15					
Fri.	16					
Sat.	17	10 10	First quarter			
		20 31	Algol at minimum			
		23	Pluto at opposition			
Sun.	18	20	Pallas stationary			
Mon.	19		Mercury at ascending node			
Tue.	20	17 20	Algol at minimum			
Wed.	21	10	Moon at perigee (364 520 km)			
		19	Venus 1.2° N of Regulus			
Thu.	22					
Fri.	23	14 09	Algol at minimum			
Sat.	24		Mercury at perihelion			
		2 37	Full Moon			
		17	Saturn 4° N of Moon			
Sun.	25					
Mon.	26	1	Jupiter 4° N of Moon			
		10 58	Algol at minimum			
Tue.	27					
Wed.	28					
Thu.	29	5	S. δ-Aquariid meteors peak			
		7 47	Algol at minimum			
		16	Mars 0.7° N of Regulus			
Fri.	30					
Sat.	31	13 16	Last quarter			

Time (UT)			AUGUST EVENTS		Jupiter's Satellites	
d	h	m			West	East
Sun.	1	0	Uranus 1.8° N of Moon		1.0	IV
		4 36	Algol at minimum		2.0	
		14	Mercury in superior conjunction		3.0	I
Mon.	2	6	Saturn at opposition		4.0	III
		8	Moon at apogee (404 410 km)		5.0	II
Tue.	3		Mercury at greatest heliocentric lat. N		6.0	
Wed.	4	1 25	Algol at minimum		7.0	
Thu.	5	4	Juno stationary		8.0	
Fri.	6	22 14	Algol at minimum		9.0	
Sat.	7				10.0	
Sun.	8	13 50	New Moon (lunation 1220)		11.0	
Mon.	9	1 30	Double shadow transit on Jupiter		12.0	
		19 03	Algol at minimum		13.0	
Tue.	10				14.0	
Wed.	11	7	Venus 4° S of Moon		15.0	
Thu.	12	15 52	Algol at minimum		16.0	
		19	Perseid meteors peak		17.0	
Fri.	13				18.0	
Sat.	14				19.0	
Sun.	15	12 41	Algol at minimum		20.0	
		15 19	First quarter		21.0	
		15 31	Triple transit event on Jupiter (p. 234)		22.0	
Mon.	16				23.0	
Tue.	17	9	Moon at perigee (369 124 km)		24.0	
Wed.	18	9 30	Algol at minimum		25.0	
Thu.	19	4	Mercury 0.1° S of Mars		26.0	
Fri.	20	0	Jupiter at opposition		27.0	
		4	Uranus stationary		28.0	
		22	Saturn 4° N of Moon		29.0	
Sat.	21	6 19	Algol at minimum		30.0	
Sun.	22	5	Jupiter 4° N of Moon		31.0	
		12 02	Full Moon			
Mon.	23					
Tue.	24	3 08	Algol at minimum			
Wed.	25					
Thu.	26		Mercury at descending node			
		23 57	Algol at minimum			
Fri.	27					
Sat.	28	9	Uranus 1.5° N of Moon			
Sun.	29		Venus at descending node			
		20 46	Algol at minimum			
Mon.	30	2	Moon at apogee (404 100 km)			
		7 13	Last quarter			
Tue.	31					



SLEAFORD UPDATE

Darrell Chatfield - Sleaford Site Coordinator

Insurance Claim

I'm expecting the double door system to arrive at the Co-op by next week. At such time, the guy contracted to rebuild the damaged shed corner will be able to do the necessary repairs. The advantage is that he works for the Co-op and lives not far from Sleaford itself, so the repairs will be easier to facilitate.

Riding Mower

On June 11th, Mike Dolan and his mechanic friend went out to Sleaford with a new throttle cable, which they installed. However, a new situation arose whereby the mower would not stay running with the new cable. The mechanic friend determined that the carburetor was gummed up, and would need rebuilding. I talked with Mini-tune about that, and they said we could just remove the carburetor from the machine, and bring that in for servicing.

So I should be able to do that, after a bit more consultation with Mini-Tune. Larry also went out on the same day, and cut the important grass areas with our self-propelled mower. He then brought in the 2 hand mowers for their tri-annual servicing to Mini-tune. Larry also went out on June 25th to take the mowers back to Sleaford, and also cut the grass again.

Thanks to Mike, his friend, and Larry for their dedicated efforts.

Sleaford Re-keying

I haven't had time to start this process as of yet. It probably won't get done until Sept.

NOTE To all club members: please be advised that the Sasktel landline to Sleaford has been cancelled due to lack of use and expense. Make sure you have your cell phone/charging cords with you when going out to observe. We will try to have cords for cell phone charging out there in case a person forgets theirs.

Darrell Chatfield
Sleaford Site Coordinator

c/o Daryl Jansen
U. of S. Departmental Assistant

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.

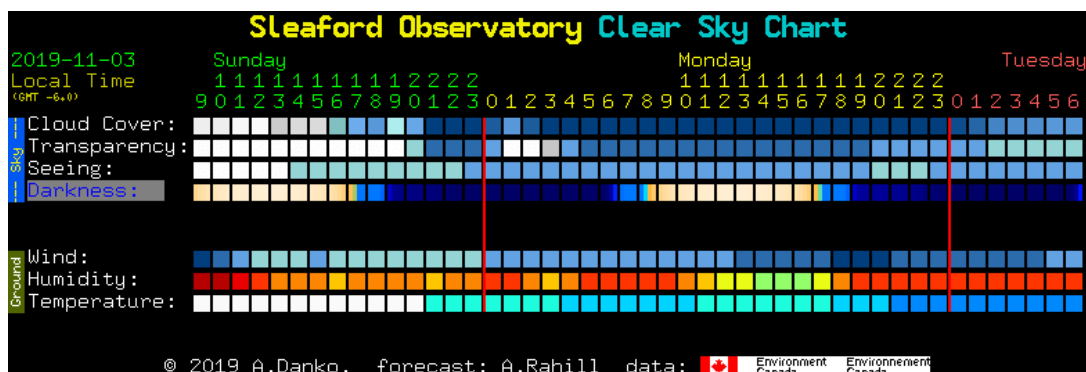
Starting in 2006 I began hosting Observer's Group meetings and as the years went on I accumulated some other responsibilities as listed above. Not sure if everything will be picked up by the members but I am hoping someone will step up to host the Observers Group and assist with these other responsibilities. 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

ABOUT YXE CENTRE - CALL FOR PARTICIPATION

Rick Huziak (Secretary), **Donna-Lee May** (Treasurer), **Les Dickson** (National Rep.)

As the interim Executive of the Saskatoon Centre, we figure we should talk about a few things that the Centre needs to consider to be sustainable and productive. Please read this and start a conversation, and in the fall, please consider participating more in the Centre governance and activities. The Centre only exists through its membership and the degree to which it thrives is directly related to active participation of its Executive Council backed by the enthusiastic support of its members. In the last six months, we've had to pull double duty with running the affairs of the Centre and organizing the Saskatchewan Summer Star Party. We are requesting that other Centre members step up into Centre leadership positions in the fall. You might infer by reading the June Executive Minutes that we have many issues we need to work through for the Centre. They have been accumulating. All issues do not have to be resolved right now, but we need to be cognizant of how each issue affects our operations

Governance – For much of the last decade, we've had a poor succession model for our President and Vice-president positions mostly driven by the lack of volunteers for those positions and our acceptance that *it might be okay* to operate without a Vice-president. ***(Thank you to our recent leaders who have braved our lack of support in backfilling the VP vacancy, but we appreciate the jobs you have collectively done despite this)***. In most organizations, normal succession is for the Vice-president to be a training position and an assistant to the President, and that on the vacancy of the presidency, the VP assumes that position and a new VP is elected. Of course, all positions are free to be elected under our constitution, so succession of VP to President doesn't always happen this way, but it is the usual norm and this produces strong continuity in the Centre. The Presidential and Vice-presidential positions are two-year terms to further ensure continuity since a single year seems to go by very quickly. **Currently, the Centre is operating without a sitting President and Vice-president and will do so until the October annual elections.** This is not a good situation. Meetings and programming have continued. Donna-Lee did an excellent job of chairing the overflowing June Executive meeting. Les will chair the September meeting, and Rick will chair the October AGM and elections.

Technically, the Executive of the Centre consists of the President, Vice-president, Secretary and Treasurer (and a Board of Directors) as far as the National RASC and the Government of Saskatchewan are concerned. There are, however, several other Executive support positions (Newsletter Editor, Social Media Coordinator, Librarian, etc.) and committees defined, and it needs to be clarified (by the future Executive) as to who has or does not have voting rights for different decisions. We will leave this discussion, and many others (some of which are indicate below) for the future Executive committee.

October's Elections – An official *Notice of the October Annual General Meeting* of the Saskatoon Centre will be given in the September newsletter, but we are going to provide pre-notice at this time. We need to fill the positions of President and Vice-President.

As of the November meeting, the new Executive will need to be able to run the affairs of the Centre. You can be assured that the new Executive will be provided with support from past Executive members as they need, and that there is a developing *Executive Handbook* available to provide long term guidance.

Membership, Growth & Sustainability – Maybe it is a *Sign of the Internet Times* but membership numbers in the Saskatoon RASC (and many other clubs) have remained stagnant over the last decade with around 88 members annually. It doesn't have to be that way. A part of doing public outreach is to raise enough interest in the Centre that people want to join and contribute. Our Centre has a lot to offer and growing beyond the status quo is the way to introduce new ideas and make the Centre financially solid. With inflation, costs have grown, but the number of contributing memberships has not.

Membership Fees – Due to several factors, the National RASC voted at the 2022 General Assembly to increase membership fees, or better stated, to increase the portion of fees that go to support National programs. So annual memberships increase for the Centre but the amount of cash the Saskatoon Centre sees does not increase. This is all the better reason to have a sustainability plan and to grow the membership base. Our hope is that increased membership fees do not have the negative effect of reducing membership numbers from perceived lack of bang for the buck.

Cashflow (and Fundraising) – The Treasurer's review of income, cash on hand and investments the Centre has versus the expenses the Centre incurs annually shows that we have not been keeping up with inflation (from several sources), that we are overspending and that we are in a negative cashflow situation. We spend more annually than we bring in. (The annual financial report is available to members on request but is no longer published in the newsletter due to security concerns). This means that a further financial review should identify expenses that we can reduce or eliminate, and we need to identify opportunities for the Centre to raise cash on an ongoing basis. Methods of fundraising may be not to do certain outreach activities for free, to solicit donations, to sell surplus assets (temporary relief) or to do other creative projects. What is certain is that the negative cashflow needs to be curbed.

Outreach – The basic purpose of outreach should be to raise awareness of astronomy *in a manner that benefits the Centre*. Some benefits may be to generate income, increase membership (which increases income and enthusiasm) or to foster future opportunities that benefit the Centre, such as representing the Centre as the local experts for astronomy that can then translate into the above future benefits.

Understanding Insurance and Liability within Outreach Activities – Because outreach activities reflect on the Centre and carry both insurance and liability implications, all public outreach activities that Centre is directly providing must be approved by the Centre Executive and must be backed by an insurance certificate. Somewhat strangely, this seemed to be a controversial issue recently. However, our Centre insurer has required this practice for at least a decade. The likely misunderstanding would be based on poor communication between the Executive and Outreach Coordinators and the lack of clear policy. This sounds a bit bureaucratic, but it really doesn't have to be. When the Centre is hosting public activities, this opens the Centre, *it's participating members and the Executive members* up to a certain amount of risk and possible litigation if an injury or a mishap occurs during the event. Centres being sued is not unheard of, and this has occurred with at least two RASC Centre events in Canada in recent times. To mitigate risk, the Centre carries a \$2-million local insurance policy that insures Centre members, Centre assets and the event against such issues. Furthermore, the National RASC also provides a \$2-million policy that covers liability for the Centre membership (though not equipment insurance). However, these policies only come into play if the outreach activities are approved on advance and that an insurance certificate is issued for the event in advance. So, the Executive must be advised in advance of the event, must evaluate if the event could produce any extraordinary liability and the Treasurer would then arrange for a proper insurance certificate. Even with a “pop-up” outreach event, this is easily possible with a few days' notice and can be done over email. So, as bureaucratic as it may sound, this process assures the Centre is aware and that it is protected – all in just a few days. Before the onset of COVID-19, we regularly had certificates in place for all outreach activities and we need to continue this practice now.

It should be noted that it is also very important that those who are running outreach activities (best done through the Outreach Coordinator) have the authority to represent the Centre. For example, a member doing a private star party for friends or the public on their block or a talk to a group is not by default covered by RASC insurance, and they should not represent themselves or the event as an official RASC event. However, with preapproval, such an event could be covered by the RASC.

Constitution & Handbooks - Our Centre lacks a current constitution. To rectify this, we have appointed a Constitution Committee. Most of this delay of a modern constitution results from two major governance model changes to ENGOS imposed first by the Federal government, then by two completely revised new governance models over the last decade by the National RASC. The lack of a constitution (required of all registered organizations) throws some kinks in our daily governance, and there is a bit of confusion at time as to what we can or can't do. This constitution should form the basis for a *Centre Handbook* that can be referenced by members, but also there has been a rumour (just about forever) that *National* is developing a model handbook for Centres. We haven't seen this handbook yet, and we haven't previously had the resources to pre-empt their effort, so we haven't updated our 25-year-old *Saskatoon Centre Handbook*. It would great to have this handy.

The updated constitution will also address issues of *Conflict of Interest* to clarify what may be in conflict when members vote, propose projects, or conduct outreach. Situation conflicts may arise that affect our liability, insurance, and ethical operations of the Centre. We do, however, have an *Executive Handbook* that is very useful for the Executive to keep track of the things we need to know at a moment's notice when making governance decisions, and things we need to keep track of through the years (such as Sleaford holders, our asset list, etc).

Sleford Observatory – The Sleford Observatory storage shed had a break-in this winter and the snow blower was stolen. Whomever decided they would break in drove the rear of their pick-up truck through the double steel doors causing extensive damage. The shed damage and snowblower were covered by our insurance premium (after the deductible) and the shed damage will be repaired shortly allowing for returned normal use of the observatory. Note that normal use also requires ongoing grass cutting and snow clearing. We are still looking for volunteers Sleford Coordinators who would become responsible for coordinating such tasks over the year.

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

SSSP 2022

Rick Huziak - 2022 SSSP Chair

SSSP 2022 is Ready to Rumble!

SSSP runs from August 23rd - 28th

SSSP planning is in its final stages and we are just about ready for the event. At the time of this writing, we have only four weekly meetings remaining to get all of the little details sorted out. We have planned a “normal” star party despite lingering COVID-19 concerns. We have also planned the full complement of speakers and events, including the indoor welcome barbeque and closing banquet. We are anticipating a normal crowd of around 340 participants. Right now, we have only a handful of trailer campsites in the Meadows and a half-dozen tent sites in the adjoining Dark-sky Campground. There is still some room to camp if you decide you’d like to come!

Our programming is a little unusual in that it will be covered by mostly Saskatoon and Regina Centre members and organizers, with the two main talks provided by Gord Sarty and Daryl Janzen. Three clinics are provided by Rick Huziak, Pierre Schierle (Regina) and Jenn Petriew (Regina). The public lecture will be provided by Mark Zalcik (Edmonton). Two other clinics will be by Sherry Campbell (Edmonton) and Larry McNish (Calgary).

SSSP is always a good time and a great way to meet 339 of our closest friends and see a whole lot of everyone’s equipment. We will also have two equipment vendors: *All-Star Telescope* and *Fervent Astronomy*, along with a few smaller niche vendors.

Walk-in attendance is a little dicey since we cannot guarantee campsites, so it is best to register for a campsite early to make sure you have somewhere to stay. Visit our webpage for all of the event information - <https://sssp.saskatoon.rasc.ca/>.

***NOTE* Early registration for the SSSP ends on July 23rd. From the 24th on, fees increase by \$10.**

SASKATOON CENTRE FINANCIAL STATEMENTS

For any members who are wanting to request financial statements regarding the Centre, please email Donna-Lee May d1m3star@telus.net.

ASTRONOMY IN THE PARK

Patricia Gakis - Activities Coordinator

Our first adventure for summer 2022 happened on July 3rd at Meewasin Park. For our Astronomy In The Park event, telescopes with solar filters were set up to give the public an opportunity to view the sun in a safe manner. A large sunspot was on display that day and provoked a lot of conversation. Afterall, that one little dot in my telescope was larger than our whole planet. It was definitely something kids were surprised to hear about!

We set up our telescopes alongside the tent for Amateur Radio Day In The Park; an annual event hosted by Saskatoon And District Amateur Radio Association. SaDARA members had a number of different HAM radio set ups including some antennas specifically for connecting with CubeSats to bounce their signals off these low Earth satellites and further their reach.

Overall, it was a small event but hopefully, it's the beginning of something new. There was definitely an interest in the possibility of setting up a radio astronomy group which in itself could go in numerous directions. But as educators continue to focus on STEM (Science, Technology, Engineering, Math), being able to collaborate with other groups is both an advantage and a pleasure. Special thanks to SaDARA president Dave Weigel VE5IV for letting us join you at Meewasin Park.

I'm not sure how many more events we will have going on this summer. If you have any ideas or know of any groups interested in learning about astronomy, please let me know as outreach is what helps clubs like ours grow and survive.





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 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

RASC OBSERVER'S HANDBOOK 2020

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
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

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

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>