

# Saskatoon Skies

The Newsletter of the Saskatoon Centre of the 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](mailto: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** – Ron Waldron

**Vice-President** – Mike Dolan

**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](mailto:novachat@sasktel.net).

## NEWSLETTER INFO

**Newsletter Editor** – Colin Chatfield

**Copy & Collate** – Les & Ellen Dickson

**Labels & Temps** – Mark de Jong

**Web Posting** – Gord Sarty

Saskatoon Skies is published monthly by the Saskatoon Centre of the RASC. Distribution is approximately 100 copies per issue. Saskatoon Skies welcomes unsolicited articles, sketches, photographs, cartoons, and other astronomy or space science material. Submissions should be sent by e-mail to the editor at [colcha@gmail.com](mailto: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](mailto:colcha@gmail.com) for rates. Members can advertise non-commercial items for free.



*Stan Noble's latest project, I have 51.7 hours of data in this SHO Hubble palette of the Bubble, Lobster Claw nebulae & the Salt & Pepper Star cluster. I used the RedCat, ZWO 294MM Pro & Antila 3.5Nm narrowband filters. Ha filter-16.2 hours, OIII filter- 15 hours & SII filter- 20.6 hours. Taken from the dark skies of Far Point Station observatory in Aneroid, SK*



**U OF S OBSERVATORY**

The U of S Observatory is open to the general public every Saturday of the year. Admission is free. The observatory is located on campus, one block north of the Wiggins Avenue and College Drive entrance. On clear nights, visitors may look through the vintage 6-inch and tour several displays. Current events are recorded on the Astronomy Information Line at 306-966-6429.

**Observatory Hours.**

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

*Temporarily Closed. Check the website for updates!*

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

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



*Two image panorama of the aurora over the Northeast Swale. Taken October 1<sup>st</sup>, 2021 by Tara Magee*

# RASC CALENDAR OF EVENTS & MEETING INFO

**Oct 18**

**RASC General Meeting - 8:00pm (info below)**

Ron Waldron

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 18th, 2021 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 - AGM and elections**

**Main speaker to be determined**

**Colin Chatfield & Tara Magee "What's up this month"**

## SPEAKERS FOR MEETINGS

Rick Huziak

The Centre always needs speakers for meetings - plain and simple. Email [rickhuziak@shaw.ca](mailto:rickhuziak@shaw.ca) to volunteer to give a short or long talk. We want to hear about what you are doing! Thanks in advance.

## AGM & CENTRE ELECTIONS 2021

Ron Waldron

As announced last month in the September Newsletter, the upcoming meeting this month is our Annual General Meeting. In that newsletter and at the September online meeting, members were informed that if they were not remaining in their current position, they were to let me know by October 1<sup>st</sup>.

That date has come and gone, and I am pleased to inform the membership that there will be only three vacancies needing to be filled.

1. **Vice President** – this person assists the incoming president and covers meetings that he/she may be unable to attend. In addition, they prepare to become the president in two years.
2. **Sleaford Observing Group/Maintenance** – as stated in the last newsletter, the current person has given us notice that he will be leaving this position in two years and would welcome the opportunity to train a new person before leaving. If you use and love our Sleaford Dark Sky Site, you should consider this position.
3. **Light Pollution Abatement** – this is an important position where you would be acting in an assisting capacity to the current member. If you are passionate about preserving our dark skies, please consider this position.

Like any organization, we depend on volunteers to keep the organization running. We thank the current volunteers who have agreed to let their name stand and ask other members to step up where you can.

# 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.

# NEW IMAGING NIGHT

Jeff Swick

I've been given the official OK to start an Imaging Night out at Sleaford. I've given it the title of Narrow Band Night as with the use of narrow band filters, having the moon in the sky is of no consequence. This will differ from the Observers Night in several respects.

For Observers Night the rule is absolutely no white light and is held on or as close to the new moon as possible. For imaging night, the idea is still to try and eliminate as much white light as possible, but, with imaging there may be times where a person uses their iPad to polar align, etc. Also the use of the warm-up shelter is a little different. As people are imaging, they may also be working on processing photos on a laptop in the shelter, for example, as once imaging is underway, there isn't much else to do other than binocular astronomy unless one hauls out a second rig for observing.

Now, given that the roll-off shelter houses the robotic scopes, we will have to be aware and respectful of white light affecting those projects. To that end, Daryl Janzen has offered to be our liaison from the university so we can plan around those activities.

I did a dry run the other night when Ron Waldron and Mike Dolan were out observing and learned a few things. I asked Ron and Mike if the light from my iPad was bothering them. Ron, who was in the spot right next to me said he didn't even know I had one with me as I had put it in my laptop case. So far, so good.

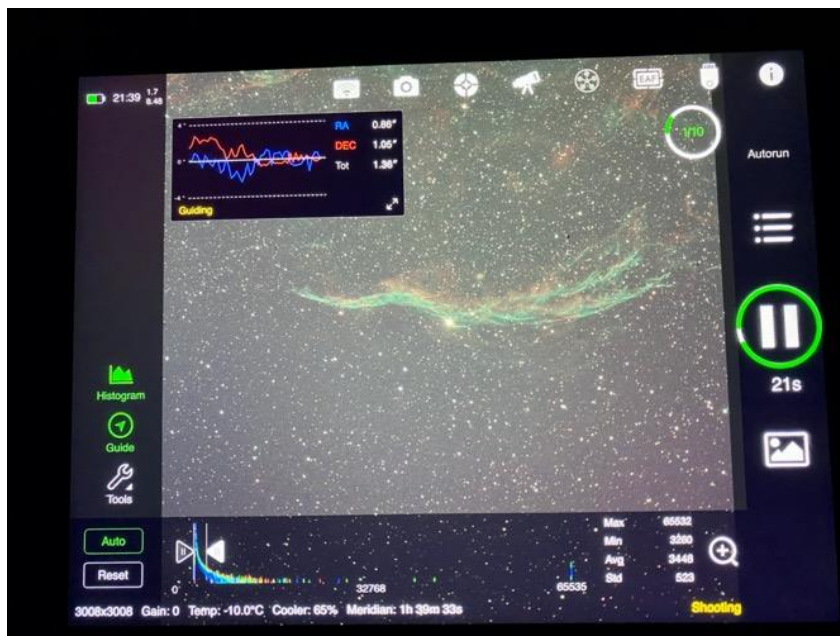
This project isn't just limited to people imaging, it would also be ideal for people working on lunar observing, star clusters and double star projects or people who just enjoy fellowship under the stars. Another person who it may be ideal for is people new to the hobby who may be setting up a new telescope at night for the first time.

I've included a photograph of the Veil Nebula which is a notoriously difficult target. This is one 30 second unprocessed photo as downloads wirelessly from the camera outside to my iPad as I'm inside watching television. This particular shot was taken during a full moon and shooting over the lights of the freeway and exhibition grounds using my NBZ OIII and Ha filter. This illustrates why when imaging we don't need to wait for ideal nights.

I'll be setting up an email list for those who wish to take part, similar to the list that Larry uses for observers night. I'll also make extensive use of our centres existing Facebook group. I think it's important to utilize what we already have so as not to fragment actives



in the club by setting up a separate group. Those of you who wish to be on the email list can contact me at [jjswick@shaw.ca](mailto:jjswick@shaw.ca).



## SLEAFORD RIDING LAWNMOWER

Ron Waldron

Thanks to member Mike Dolan, the Sleaford Dark Site now has a riding mower for maintenance of the grass in the summer (see photo). It is a 15-year old machine and was approved for purchase at a cost of only \$800. Additional monies were approved to purchase a new battery and pay for a tune-up if necessary. It is currently in the shed at the dark sky site and will begin use in the spring. Thanks, Mike, for keeping your eyes open and recommending this purchase.



# SLEAFORD CLEAN-UP DAY

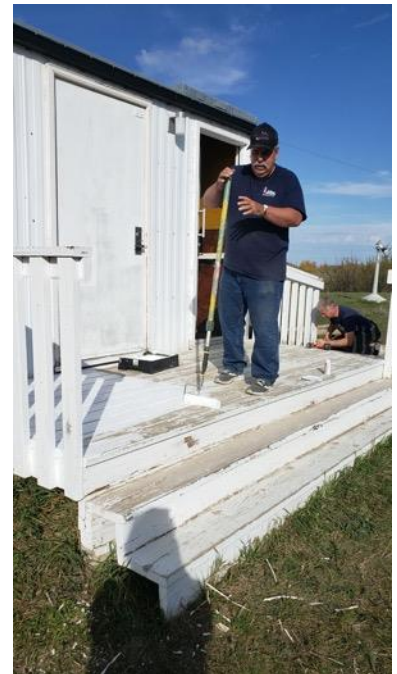
Ron Waldron

They say “many hands make less work”. That certainly was the case, last Sunday, October 26<sup>th</sup> as 7 members gathered at Sleaford to clean up and slightly refurbish parts of the site. The shed was almost completely gutted (except for our newly refurbished 16-inch telescope) which now sits tightly wrapped in a far corner awaiting its future site and placement). A broken barbecue was hauled away using Colin Chatfield’s handy trailer, as was an old desk left abandoned from the U of S roll-off. When all that was done, the shed was swept, and important things returned in a more logical placement.

Meanwhile Rick Huziak was scraping down the deck and rails of the deck surrounding the warm-up shelter, replacing rotten wood pieces on the fly. When the rest of us were done with the shed, we all ambled over to take turns painting.

Larry did some final touch-ups with his collection of lawnmowers to prepare the site for winter. Mike, meanwhile, worked on preparing our newly purchased riding lawnmower for action in the spring.

In total, it was a very successful day... thank you to all that came out to help. They were: myself, Mike Dolan, Colin Chatfield, Tara Magee, Larry Scott, Darrell Chatfield, and Rick Huziak. (photos taken by Rick and Colin).





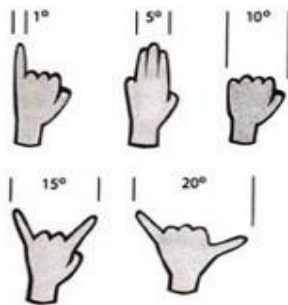


## OCTOBER NIGHT SKY EVENTS AND INFO

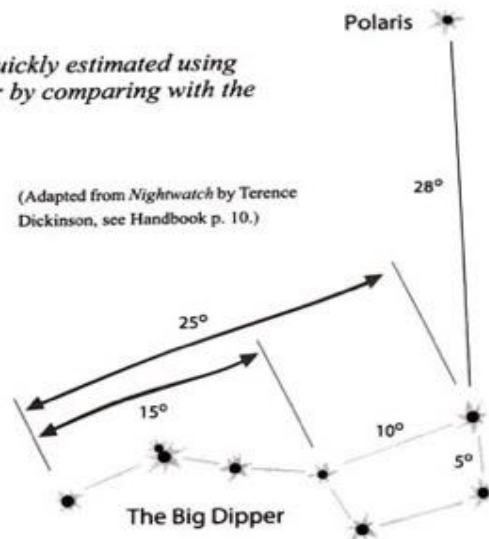
Images on the next few pages taken with permission from the 2021 Observer's Handbook. It can be obtained by joining the RASC here <http://rasc.ca/join> or ordered from <https://secure.rasc.ca/Portal/Shop/RASC/Store/StoreMain.aspx?Category=CURRPUB>

### HANDY SKY MEASURES


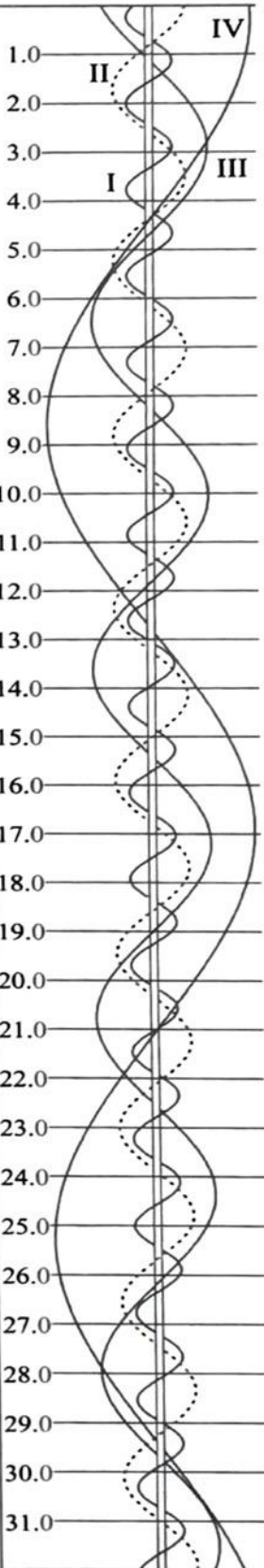

















*Angular measure in the sky can be quickly estimated using the fingers of an outstretched arm, or by comparing with the star separations in the Big Dipper.*



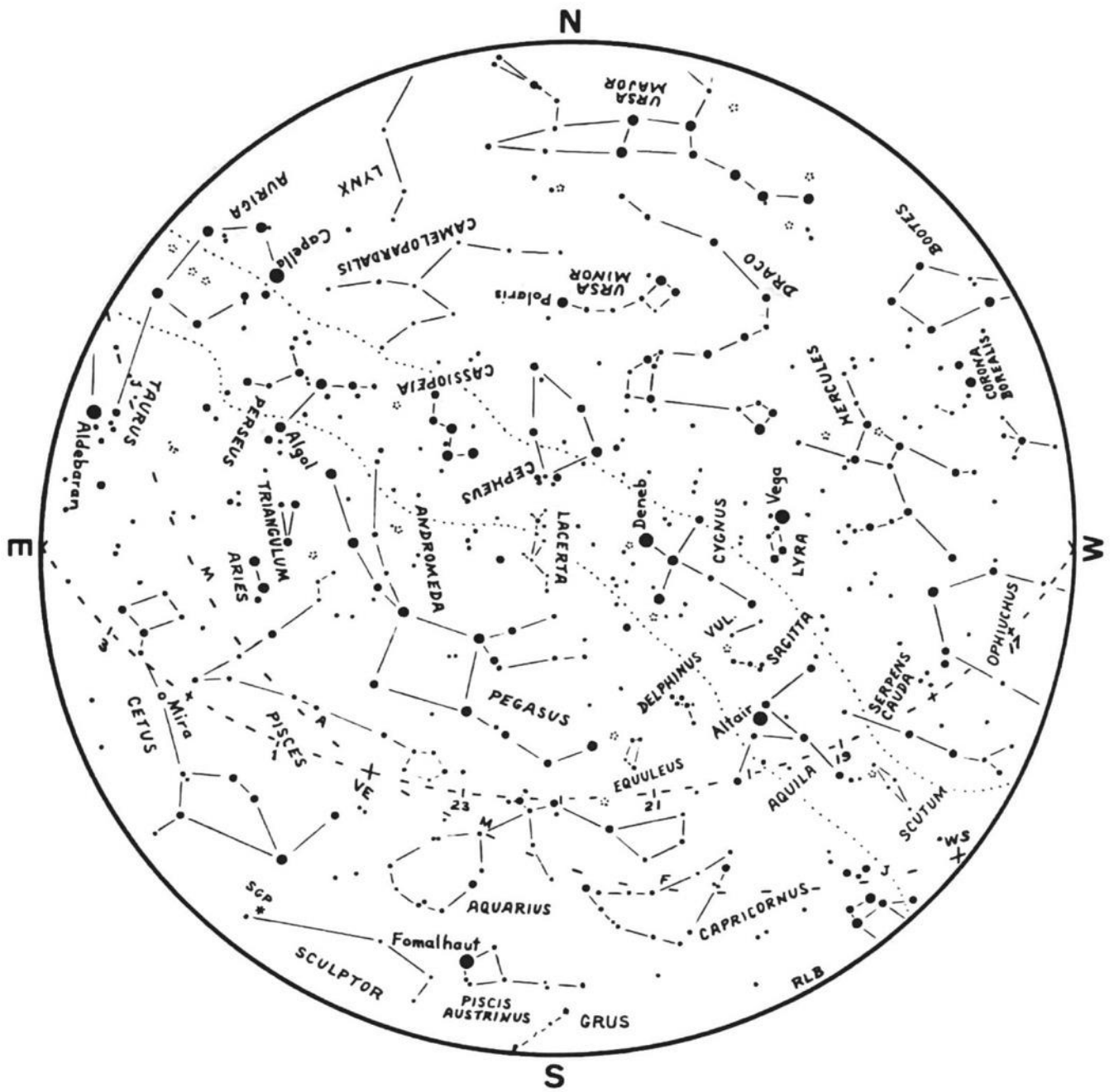
(Adapted from *Nightwatch* by Terence Dickinson, see Handbook p. 10.)



RASC OBSERVER'S HANDBOOK 2020

Time (UT)			OCTOBER EVENTS		Jupiter's Satellites	
d	h	m			West	East
Fri.	1					
Sat.	2					
Sun.	3					
		6 34	Venus at aphelion Algol at minimum <b>Zodiacal Light vis. in N lat. in E before morning twilight for next two weeks</b>			
Mon.	4					
Tue.	5					
Wed.	6	3 23 11 05	Algol at minimum <b>New Moon (lunation 1222)</b>			
Thu.	7					
Fri.	8	4 17 19	Mars in conjunction with the Sun Moon at perigee (363 386 km) Ceres stationary			
Sat.	9	0 12 16 19	Algol at minimum Mercury in inferior conjunction <b>Venus 3° S of Moon</b>			
Sun.	10					
Mon.	11	2 21 01	Saturn stationary Algol at minimum			
Tue.	12	14 43	<b>Double shadow transit on Jupiter</b>			
Wed.	13	3 25	<b>First quarter</b>			
Thu.	14	7 17 50	Saturn 4° N of Moon Algol at minimum			
Fri.	15	10	Mercury at ascending node Jupiter 4° N of Moon			
Sat.	16	14	<b>Venus 1.5° N of Antares</b>			
Sun.	17	14 39	Algol at minimum			
Mon.	18	1 11 17 19	Mercury stationary Jupiter stationary <b>Double shadow transit on Jupiter</b>			
Tue.	19		Mercury at perihelion			
Wed.	20	11 28 14 56	Algol at minimum <b>Full Moon</b>			
Thu.	21	12 22	Orionid meteors peak Uranus 1.3° N of Moon			
Fri.	22					
Sat.	23	8 17	Algol at minimum			
Sun.	24	15	Moon at apogee (405 615 km)			
Mon.	25		Venus at greatest heliocentric lat. S <b>Mercury greatest elongation W (18°)</b>			
		6				
Tue.	26	2 5 06 20 20	Moon 1.7° N of M35 Algol at minimum <b>Double shadow transit on Jupiter</b>			
Wed.	27					
Thu.	28	20 05	<b>Last quarter</b>			
Fri.	29	1 55 21	Algol at minimum <b>Venus greatest elongation E (47°)</b>			
Sat.	30		Mercury at greatest heliocentric lat. N			
Sun.	31	22 44	Algol at minimum			



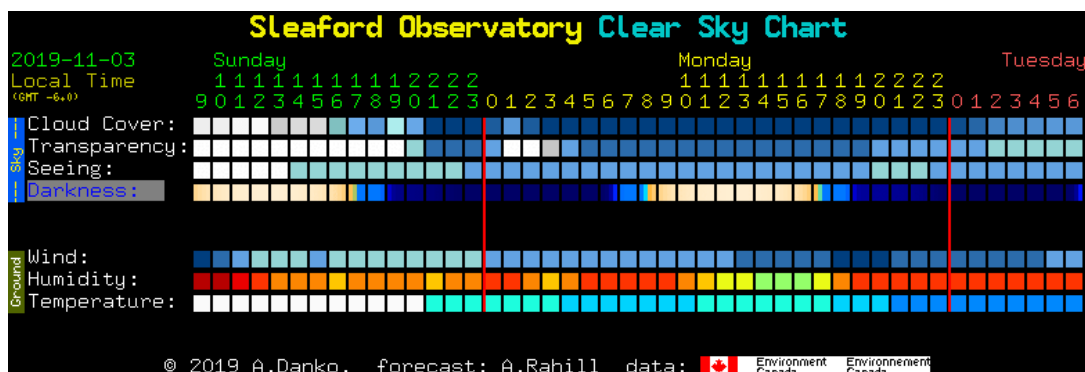


# CLEAR SKY AND WEATHER INFO

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](http://www.weather.gc.ca/astro)



Saskatchewan Light Pollution Abatement Committee -

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



[www.darksky.org](http://www.darksky.org)

## BOOKS FOR SALE

All books are in either new, or like new condition. Retail price in brackets. Please email at [novachat@sasktel.net](mailto: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.

<b>“Deep-Sky Observers Handbook”</b>	Volume 1-5	Enslow-Lutterworth	\$40.00
<b>“International Encyclopedia of Astronomy”</b>	1987	Patrick Moore	Color \$10.00
<b>“Backyard Astronomers Guide”</b>	T. Dickinson & Alan Dyer	2008	Color \$25.00
<b>“Atlas of Deep Sky Splendors”</b>	1978	H. Verhenberg	(50.00) B & W \$22.00
<b>“Amateur Astronomers Catalog of 500 Deep Sky Objects”</b>	Vol 1	1980	B & W R. Morales \$15.00
<b>“Observing the Constellations”</b>	1989	J. Sanford	Color charts \$10.00

## RASC 2022 CALENDARS

Donna-Lee May

Donna-Lee May is currently taking orders for the 2022 RASC Calendars. They are \$20 each. Email Donna-Lee at [d1m3star@telus.net](mailto:d1m3star@telus.net). See the RASC website for more info (please note the price on the website doesn't include the shipping cost, etc.):

<https://secure.rasc.ca/store/product/2022-observer-s-calendar>



# SSSP 2022 - 25th ANNIVERSARY

Rick Huziak

The 25<sup>th</sup> Saskatchewan Summer Star Party runs from August 24<sup>th</sup> through 29<sup>th</sup>, 2022 at Cypress Hills Centre Block, 40 kilometres south of Maple Creek, Saskatchewan. Being out 25<sup>th</sup> year, we are looking forward to planning something a little more special. Planning for the star party is really a year-around activity with planning meetings starting as early as November and picking up steam in February since certain milestones need to be in place for the star party to happen. Check out our 2021 webpage to see how the star party currently runs!

<https://sssp.saskatoon.rasc.ca/>

And, of course, we need committee members! Meetings occur monthly for most of the year, migrating to twice monthly about two months before the star party. Traditionally, the SSSP Committee has consisted of about 6 or 7 hard working core organizers and a few others who get assigned specific tasks closer to the star party. If you are interest in helping to organize the 25<sup>th</sup> star party, or have any special requests for activities at the party, please contact Rick Huziak at [rickhuziak@shaw.ca](mailto:rickhuziak@shaw.ca).



*The late season Milky Way rises over the roll-off observatory at Sleaford on a September night.  
Taken by Tim Yaworski*





*Members of the public taking a look through Rick Huziak's telescope pointed at the Moon on August 14<sup>th</sup> at Blackstrap Lake. Taken by Colin Chatfield on iPhone*

## 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](http://www.rasc.ca/certificate-programs) for details and contact the RASC Observing Committee Chair at [rasc.ca/contact/observing](http://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](http://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](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>