

# Saskatoon Skies

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

Volume 53, Number 06

June 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](mailto: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
Speakers for Meetings / Minutes of May Meetings	5-8
June Night Sky Events & Info / Centre Financial Statements	9-11
Observers Group Coordinator	12
Clear Sky Chart / Weather Info / Light Abatement Info	13
RASC General Assembly & GA	14-15
Books for Sale / Observing Certificates & Clubs	16-17

# 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 – \*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](mailto:novachat@sasktel.net).

## NEWSLETTER INFO

**Newsletter Editor** – Colin Chatfield

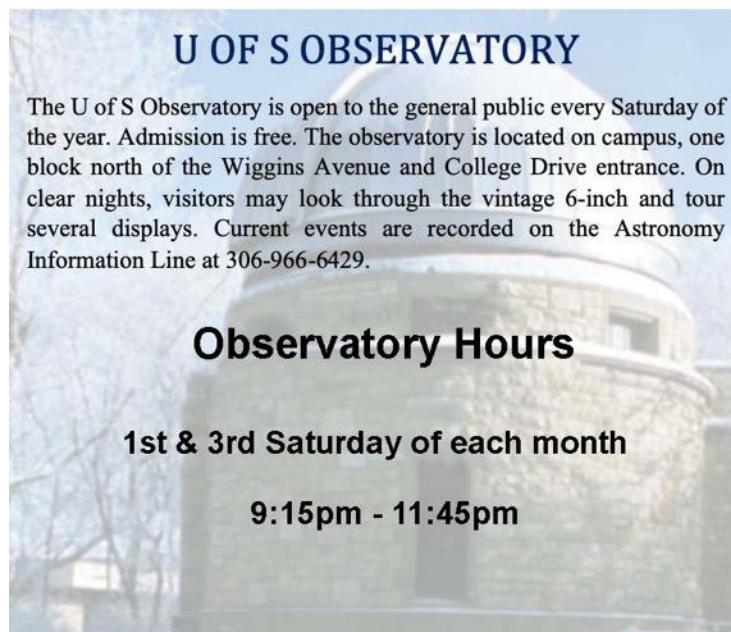
**Copy & Collate** – Les & Ellen Dickson

**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](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.



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

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

# RASC CALENDAR OF EVENTS & MEETING INFO

<b>June 20<sup>th</sup></b>	<b>RASC General Meeting - 8:00pm (info below)</b>	Tim Yaworski
<b>June 25<sup>th</sup></b>	<b>Observer's Group - Sleaford Observatory</b>	Larry Scott
<b>June 24 - 27<sup>th</sup></b>	<b>RASC General Assembly</b>	See below
<b>June 26<sup>th</sup></b>	<b>RASC AGM</b>	See below

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>

## June RASC General Meeting for all members and guests

**Join us on June 20th, 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 - “From City Lights to Deep Space: Deep sky observing from urban and suburban locations” - Ron Mollise (Contributing Editor for Sky & Telescope)**  
“I discuss both equipment and methods for successfully observing deep sky objects from compromised locations.”

**“What’s up this month” - Colin Chatfield & Tara Magee**

## 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](mailto:rickhuziak@shaw.ca)

## MINUTES OF MAY MEETINGS

Rick Huziak

### Minutes of the Monthly Executive Meeting RASC Saskatoon Centre Monday, May 16, 2022 - 7:00 pm - Online (ZOOM)

**Attending:** Les Dickson (chair), Donna-Lee May, Rick Huziak, Darrell Chatfield, Ron Waldron, Grant Ursaki, Colin Chatfield, Tara Magee. **Later:** Lorin Briand, Justin Lukin & Lorie Tedford.

- 1. Call to order** 7:03 pm– Les Dickson.
- 2. Approval of the April Executive Minutes** as circulated in the May newsletter.  
**Moved:** Donna-Lee May. **Seconded:** Tenho Tuomi. **Carried.**
- 3. Call for additional announcements/items** to add to agenda
  - Rick H: Please remove the last item under New Business (annual operations cost) & move SSSP Update to only General Meeting.

#### **4. Old business**

- Discussion on **Criminal Records Checks** (CRC) for members, first aid, legal waivers etc. (deferred from last meetings) – Les Dickson. National Council has provided guidance on CRC & insurance along with Best Practices for Outreach. Cam McLelland provided a good justification (via email.) Les has asked Cam to help develop a policy for later this year. Les suggests a committee consisting of Les, Cam & Donna-Lee.
- **Insurance claim** update for Sleaford Shed break-in – Darrell Chatfield – Darrell is working on this with the insurance company. Coverage is approved as of May 6. Adjuster has not been out. Larry Scott is concerned over access to shed and mowers. Darrell might have to get RM to mow if shed is not yet accessible. **Moved:** To have RM mow to grass until the shed is accessible, to be arranged by Darrell. – Ron Waldron. **Seconded:** Les Dickson. **Carried.**

#### **5. New business**

- **Resignation of Mike Dolan as President** and report on special meeting of the Board of Directors and the Executive of 8 May 2022 – Les Dickson. Les, Donna-Lee & Rick will chair meetings until the elections. Mark de Jong will redirect email to Rick Huziak.
- **Outreach Terms** - Donna-Lee discussed the preliminary Outreach Policy that was developed at the May 8 Special Executive meeting with Outreach Coordinator, Tim Yaworski. Tim is happy with better knowledge of expectations. Tim will help with developing the terms with the Executive.
- **Past-president might be part of the Executive** or ex-officio to provide continuity - Donna-Lee. Ron Waldron suggests the new executive should address this matter and vote on it the past-president is a member of the executive. Agreed.
- The **Executive Handbook** needs to be expanded to include policies and more complete information - Rick Huziak. A members-only website exists so it is accessible, but it is not password protected. Tenho will look to see if we can develop a password protected site.
- **Centre Bylaws** have been uploaded to the Centre members-only website by Tenho. Les will review the state of bylaws and update the Bylaw Committee.

- **Conflicts of Interest** need to be identified and a policy written to provide guidance - Rick Huziak. Ron Waldron will help with the policy. Les Dickson will find out if such a policy needs to align with any National policy.
- **Ron Waldron queried Information Services Corp by phone**, who states we are in default of our registration, but Donna-Lee has sent our paperwork. Donna-Lee will check why Information Corp thinks we are not. Donna-Lee has confirmed they have cleared our cheques.

## **6. Call to adjourn - 7:58pm Moved: Rick Huziak. Carried.**

### **Minutes of RASC Monthly General Meeting RASC Saskatoon Centre Monday, May 16, 2022 - 8:00 pm - Online (ZOOM)**

19 members on-line at beginning of meeting.

#### **1. Sharing / Networking Time – all members**

#### **2. Call to order - 8:17 PM - Les Dickson**

#### **3. Call out to new members/guests:** Justin Lukin & Lorie Tedford – welcome. Welcome back Lorin Briand.

#### **4. Adoption of the April General Meeting minutes** as circulated in May newsletter, **Moved:** Tim Ursaki **Seconded:** Tim Yaworski **Carried.**

#### **5. Executive meeting summary**

- Mike Dolan has resigned as President. The remaining Executive will run meeting until he elections. Les summarized the meeting. Call for early volunteers as President and Vice-president.

#### **6. Committee Reports**

- **SSSP update** – Rick H. Registrations are on track with over 70 people registered, only 3 Meadows and 12 Dark-sky campsites remaining. Main speakers are place, clinics speakers are being arranged. We are planning a “normal” SSSP with a banquet, BBQ and indoor programming. Please register early.

- **Acknowledgement of members who have received Service Awards**  
– Rick H. Rick notes that Barb Wright, Tenho Tuomi & Merlyn Melby will be presented with medals as soon as they arrive.
- **Outreach Report** – Tim Yaworski
  - May 14 CWS event: *Wild Outdoors* from Canadian Wildlife Service: 14 high school kids, 3 parents and 3 CWS leaders – Tim Yaworski & Rick Huziak led this.
  - May 15 Swale Total Eclipse: *Meewasin Valley Authority* program with the RASC supporting at the Saskatoon Northeast Swale. Tim Yaworski led the program. Approximately 60 people attended. About seven RASC volunteers helped out. Tim did an astrophotography clinic. A door prize (Celestron First Scope) was donated by London Drugs.

**7. New Business:** No new business.

## **8. Programs:**

- **The Upcoming Sky** – Colin Chatfield
- Main Program - **My 19 Comets of 2021** - Tenho Tuomi
- Colin Chatfield showed his 12-year-old son's (Gavin's) pictures of the lunar eclipse.

**9. Call to adjourn** – 9.23pm **Moved:** Ellen Dickson/Donna-Lee May **Carried.**



March 30<sup>th</sup> Aurora taken by Tara Magee



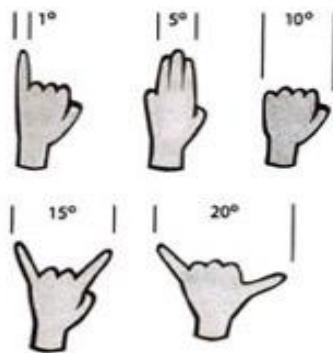
Milky Way over a rural church taken May 23, 2022 by Colin Chatfield

## JUNE NIGHT SKY EVENTS AND INFO

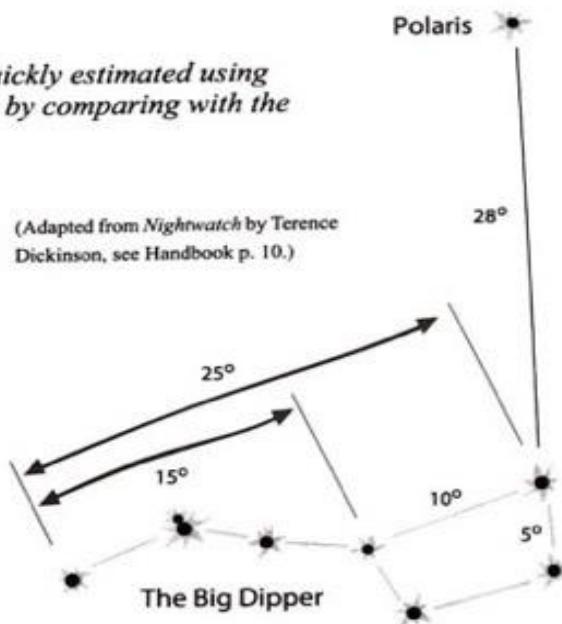
Images on the next few pages taken with permission from the 2021 Observer's Handbook. It can be obtained by joining the RASC here <http://rasc.ca/join> or ordered from <https://secure.rasc.ca/Portal/Shop/RASC/StoreMain.aspx?Category=CURRPUB>

### HANDY SKY MEASURES

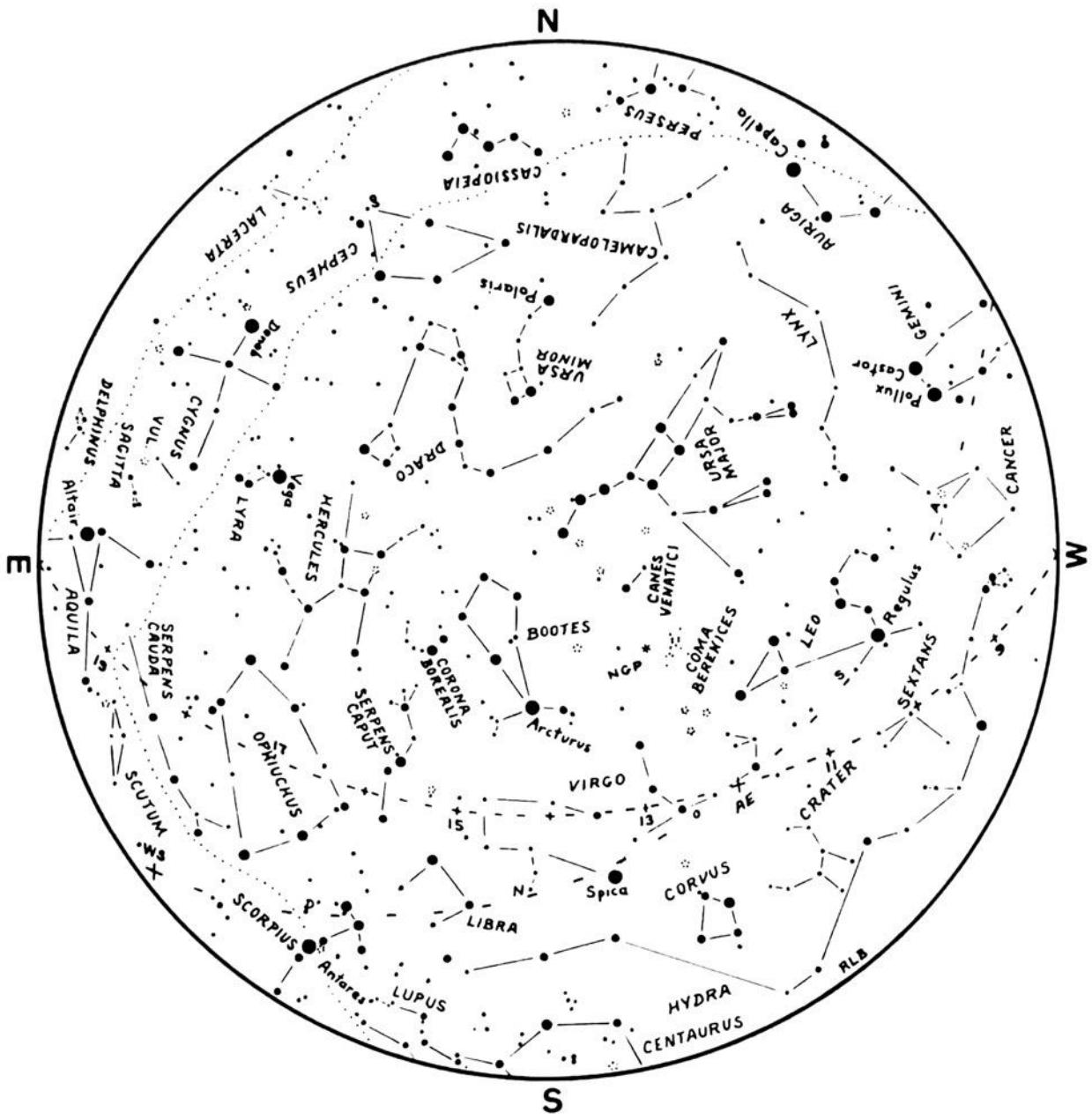
*Angular measure in the sky can be quickly estimated using the fingers of an outstretched arm, or by comparing with the star separations in the Big Dipper.*



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



Time (UT)			JUNE EVENTS	Jupiter's Satellites	
	d	h m		West	East
Wed.	1	3 08	Algol at minimum		
		21	<b>Ceres 0.1° S of Moon, occultation†</b>		
Thu.	2	1	Moon at apogee (406192 km)		
Fri.	3	0	Mercury stationary		
		23 57	Algol at minimum		
Sat.	4				
Sun.	5	14	Saturn stationary		
Mon.	6	20 46	Venus at greatest heliocentric lat. S		
			Algol at minimum		
Tue.	7	14 48	<b>first quarter</b>		
Wed.	8				
Thu.	9	17 35	Algol at minimum		
Fri.	10				
Sat.	11	13	<b>Venus 1.6° S of Uranus</b>		
Sun.	12	14 24	Algol at minimum		
Mon.	13				
Tue.	14	11 52	<b>full Moon</b>		
		23	Moon at perigee (357432 km) <b>Large tides</b>		
Wed.	15	11 13	Algol at minimum		
Thu.	16	15	<b>Mercury greatest elongation W (23°)</b>		
Fri.	17		Mercury at greatest heliocentric lat. S		
Sat.	18	8 02	Algol at minimum		
		12	Saturn 4° N of Moon		
Sun.	19	8	<b>Vesta 0.7° N of Moon, occultation‡</b>		
Mon.	20				
Tue.	21		Mars at perihelion		
		3 11	<b>last quarter</b>		
		4 51	Algol at minimum		
		9 14	<b>Solstice</b>		
		14	Jupiter 3° N of Moon		
Wed.	22	18	<b>Mars 0.9° N of Moon, occultation††</b>		
Thu.	23				
Fri.	24	1 40	Algol at minimum		
		22	<b>Uranus 0.05° N of Moon, occultation‡‡</b>		
Sat.	25				
Sun.	26	8	<b>Venus 3° S of Moon</b>		
		22 29	Algol at minimum		
Mon.	27	8	Mercury 4° S of Moon		
Tue.	28	23	Neptune stationary		
Wed.	29	2 52	<b>new Moon (lunation 1231)</b>		
		6	Moon at apogee (406580 km)		
		19 18	Algol at minimum		
Thu.	30				



## SASKATOON CENTRE FINANCIAL STATEMENTS

For any members who are wanting to request financial statements regarding the Centre, please email Donna-Lee May [dlm3star@telus.net](mailto:dlm3star@telus.net).

# 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. |

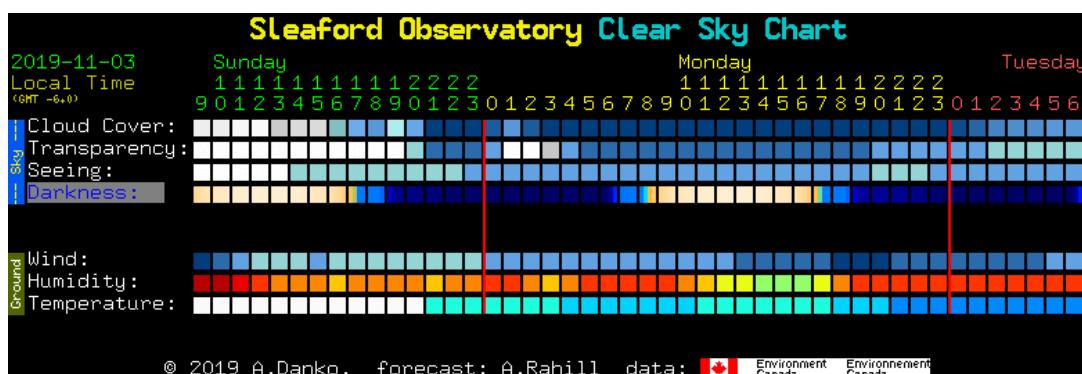
Starting in 2006 I began hosting Observer's Group meetings and as the years went on I accumulated some other responsibilities as listed above. Not sure if everything will be picked up by the members but I am hoping someone will step up to host the Observers Group and assist with these other responsibilities.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



Saskatchewan Light Pollution Abatement Committee -

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



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

# RASC 2022 GENERAL ASSEMBLY & AGM

## The RASC 2022 GA

The AGM takes place during RASC's General Assembly!

The 2022 General Assembly will include engaging guest speakers, social events, youth activities, citizen science, astrophotography, cross-Canada observing, and more!

The event will take place virtually from June 24-27, 2022.

For more information, visit the GA website - <https://rascga2022.ca/>.

You Are Invited to the  
**Annual General Meeting**

of the Royal Astronomical Society of Canada!

**Sunday, June 26, 2022**  
**18:00-20:00 EDT**  
**15:00-17:00 PDT**

Meeting will take place virtually, via Zoom. Zoom links will be provided.

### About the AGM

At the AGM, each member in good standing is allowed to vote on all issues that are correctly proposed. The AGM is free of cost and is open to members only. Members must be logged into their *secure.rasc.ca* account to register for the AGM.

If you have purchased a General Assembly ticket you are NOT automatically registered for the AGM. You must register here to receive access to the AGM.

Register for the AGM here - <https://secure.rasc.ca/events/agm2022>

## **Agenda**

### **1. Minutes of the 2021 Annual General Meeting**

(Click [here](#) for draft minutes)

### **2. Reports of Officers**

President (Robyn Foret), Secretary (Eric Briggs), Treasurer (Catherine Carr), Executive Director (Dr. Philip Groff)

(Audited 2021 Financial Statements – Coming Soon)

### **3. Reports of Permanent Committees**

AstroImaging (Stuart Heggie), Awards (Dr. Chris Gainor), Constitution (Michael Watson), Education (Laurie Roche), Editorial Board (Dr. Chris Gainor), History (Clark Muir), Inclusivity and Diversity (Virginia Marquez-Pacheco), Information Technology (Walter MacDonald), Light-Pollution Abatement (Bob King), NextGen RASC (Lucas Kuhn and Ivan Tokovski), Nominating (Michael Watson), Observing (Blake Nancarrow)

### **4. Reports of Other Committees/Working Groups**

Dorner Telescope Museum (Randall Rosenfeld), Robotic Telescope (Samantha Jewett), Solar Eclipse (Randy Attwood), General Assemblies (Randy Attwood)

### **5. Election of Board of Directors**

(Click [here](#) for Candidate Statement 1)

(Click [here](#) for Candidate Statement 2)

### **6. Motion re: By-Law Amendment**

(Draft Document – Coming Soon)

### **7. Election of Auditor**

### **8. Other Business**

### **9. Adjournment**

View the Agenda Online here - <https://rascga2022.ca/agm/>.

## 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

## 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-	94
Goldkuhle	
Wade Selvig	75
Wayne Schlakohl	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 Schlakohl	55
Jim Goodridge	35

#### **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

#### **ISABEL WILLIAMSON**

#### **LUNAR OBSERVING CERTIFICATE**

##### **Certified at 140 Objects:**

*T. Tuomi, N. Jensen*

#### **EXPLORE THE MOON CERTIFICATE**

*T. Yaworski*

#### **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.astroligue.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.shtml>