

# Saskatoon Skies

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

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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>

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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** – Mike Dolan

**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.

**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

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

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

## RASC CALENDAR OF EVENTS & MEETING INFO

<b>Mar 21<sup>st</sup></b>	<b>RASC General Meeting - 8:00pm (info below)</b>	Mike Dolan
<b>Mar 26<sup>th</sup></b>	<b>Observer's Group - Sleaford Observatory</b>	Larry Scott
<b>Mar 26<sup>th</sup></b>	<b>Messier Marathon - Sleaford Observatory</b>	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>

### March RASC General Meeting

for all members and guests

**Join us on March 21<sup>st</sup>, 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 -**

**“Repairing the Centre’s 16” Telescope” - Yannis Pahatourglou**

**“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 all months March through June and 30 – 40-minute talks for April and May. Please volunteer to talk about your favourite topic.

Online meeting attendance is also pretty low for a club that has over 80 members. Online meetings are being held because of Covid-19, 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. With generally low attendance, I am reluctant to book external speakers who spend a lot of their time to prepare their talks then see that we have only a dozen people on-line. So, if I see larger meeting attendance I would book more external speakers. 😊 [rickhuziak@shaw.ca](mailto:rickhuziak@shaw.ca)

# MINUTES OF FEBRUARY MEETINGS

Rick Huziak

## **Minutes of the Executive Meeting - RASC Saskatoon Centre Monday, February 28, 2022 - 7:00 pm Online (ZOOM)**

**Attending:** Mike Dolan, Ron Waldron, Donna-Lee May, Rick Huziak, Darrell Chatfield, Mark de Jong, Les Dickson, Tim Yaworski, Colin Chatfield, Tenho Tuomi, Phil Groff (National RASC Exec Director), Robyn Foret (National RASC President). **Later:** Jeff Swick, Murray Strankay.

1. **Call to order 7:02 PM** – Mike Dolan.
2. **Approval of the January Executive minutes** as circulated in February newsletter.  
**MOVED:** Les Dickson. **SECONDED:** Ron Waldron. **CARRIED.**
3. **Call for additional announcements/items** to add to agenda – nothing added.

#### 4. Old business:

- **Sleaford Observatory update** – Ron Waldron: Darrell Chatfield is getting two more estimates for Observatory build plan.
- **National Update** – *Observer's Handbook*, etc. – Les Dickson: Most members now have their Handbooks. National Council meeting will occur first week of March.
- **Members Database update** – Mark de Jong: Mark is working with National getting the new membership reports up & running for Saskatoon. Executive members should be automatically getting the reports each month. The last year's data in the membership database is difficult to get due to database transition before May 1, 2021. Phil Groff states new data formatting is improving and old iMIS data is being reproduced. Donna-Lee states she is missing information to complete reports.

#### 5. New business:

- **Financial Report** – Donna-Lee May
  - **RASC - Saskatoon Centre** – Cash on hand: \$20,731.49. Total deposits: \$7,628.25. Term renewed in September. Total assets: \$56,085.50. Insurance: \$1157 is paid. Depreciation: \$1260. Some other smaller fees reported. Donna-Lee will have report finished as soon as she can talk to Jim Gorkoff about past Reports.
  - **SSSP financial** - \$3700 prepaid (for 2022 & 2023) & \$1200 for 2024 to the Resort. This is a large outstanding amount. Donna-Lee will talk to the Resort at Cypress Hills. Ron Waldron asks if SSSP made money. Donna-Lee – Yes. Ron Waldron: Can membership see SSSP budgetary figures? Donna-Lee: Yes – individually, but reports are not published. SSSP report available March 10 (at next SSSP meeting.)
- **Report on Sleaford break-in:**
  - Darrell Chatfield: Darrell summarizes that the Sleaford Observatory shed was broken into sometime before Jan. 20, when the RM grader operator reported seeing damage. Darrell & Bev Chatfield closed up the shed damage. A report to the RCMP was submitted and Darrell will get a copy.
  - Donna-Lee May: Insurance claim has been started with SGI. Two more damage repair estimates are required. Mid-West (adjustor) has sent us a form to complete. They will send an adjustor to do the assessment.
- **Web redesign proposal:**
  - Tenho Tuomi: Tenho presented a new web design for consideration (suggested & reformatted for demonstration by Tammy Vallee's son, Nathaniel, a programmer.) Executive states this is very good and Tenho should proceed with changes.

6. **Call to adjourn.** 7:59 PM. **MOVED:** Les Dickson. **SECONDED:** Tenho Tuomi. **CARRIED.**

**Minute of the General Meeting - RASC Saskatoon Centre  
Monday, February 28, 2022 - 8:00 pm Online (ZOOM)**

**20 members** in attendance at beginning of meeting, plus Phil Groff & Robyn Foret.

1. **Sharing / Networking Time** – all members.
2. **Call to order** 8:16 PM – Mike Dolan.
3. **Call out to new members/guests** – Mike Dolan: Mike introduced Phil Groff, National RASC Executive Director & Robyn Foret, National RASC President.
4. **Adoption of the January General Meeting minutes** as circulated in February newsletter. **MOVED:** Tim Yaworski. **SECONDED:** Darrell Chatfield. **CARRIED.**
5. **Executive meeting summary** – Mike Dolan – see Executive Minutes.
6. **Committee Reports:**
  - **Narrow Band Imaging Group** – Jeff Swick & Tim Yaworski – no activity due to weather.
  - **Sleaford Committee:** Darrell Chatfield has had the Sleaford Observatory site cleared by the RM.
7. **Financial Report** – Donna-Lee May: Waiting for some figures to complete the Reports. See Executive minutes for full details.
8. **New Business:**
  - **Sleaford break-in update/report** – Darrell Chatfield: Summarized for the membership. (See Executive minutes for more details.)
9. **Program:**
  - *The Upcoming Sky* – Tara Magee & Colin Chatfield
  - *Welcome from RASC National – Everything You'd Always Wanted to Know, but Were Afraid to Ask* - Philip Groff, Ph.D. Executive Director, RASC & Robyn Foret, National President of RASC
10. **Motion to adjournment:** 10:07 PM. **MOVED:** Les Dickson. **SECONDED:** Yannis Pahatourglou. **CARRIED.**





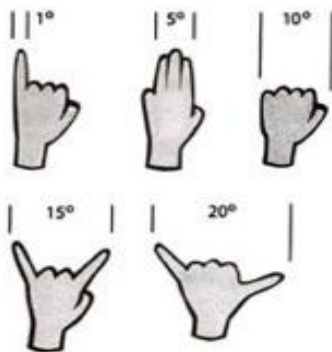
*Panoramic image of the aurora taken by Tara Magee*

## MARCH NIGHT SKY EVENTS AND INFO

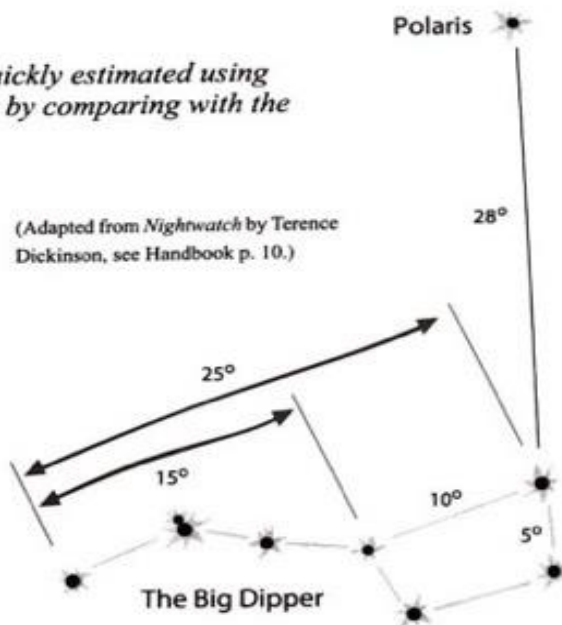
Images on the next few pages taken with permission from the 2021 Observer's Handbook. It can be obtained by joining the RASC here <http://rasc.ca/join> or ordered from <https://secure.rasc.ca/Portal/Shop/RASC/Store/StoreMain.aspx?Category=CURRPUB>

### 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.*


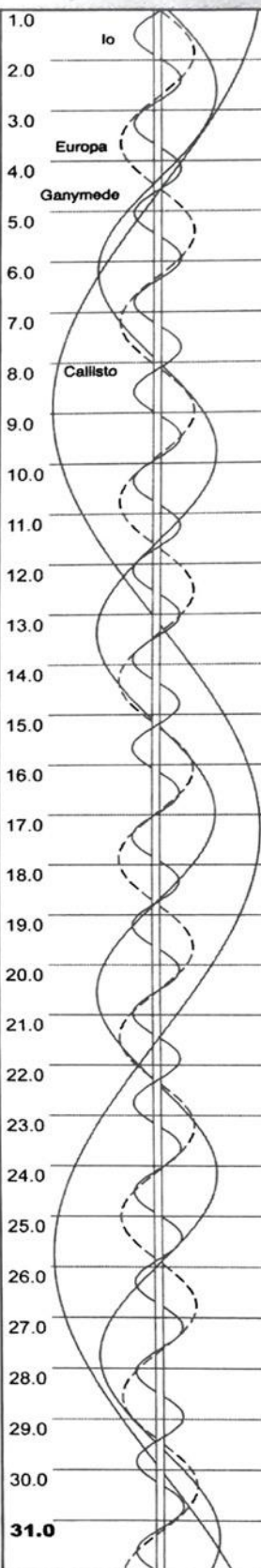







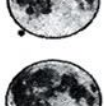

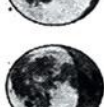
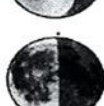



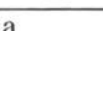



(Adapted from *Nightwatch* by Terence Dickinson, see Handbook p. 10.)



RASC OBSERVER'S HANDBOOK 2020



Time (UT)			MARCH EVENTS		Jupiter's Satellites	
d h m					West	East
Tue.	1	0	Saturn 4° N of Moon		1.0	
		9 01	Algol at minimum		2.0	
Wed.	2	13	Mercury 0.7° S of Saturn		3.0	
		17 35	<b>new Moon (lunation 1227)</b>		4.0	
Thu.	3				5.0	
Fri.	4	5 50	Algol at minimum		6.0	
Sat.	5	14	Jupiter in conjunction with the Sun		7.0	
Sun.	6				8.0	
Mon.	7	2 39	Algol at minimum		9.0	
		6	<b>Uranus 0.8° N of Moon, occultation†</b>		10.0	
Tue.	8				11.0	
Wed.	9	7	<b>Ceres 0.3° N of Moon, occultation‡</b>		12.0	
		23 28	Algol at minimum		13.0	
Thu.	10	10 45	<b>first quarter</b>		14.0	
		23	Moon at apogee (404 268 km)		15.0	
Fri.	11				16.0	
Sat.	12	14	Venus 4° N of Mars		17.0	
		20 17	Algol at minimum		18.0	
Sun.	13		<b>DAYLIGHT SAVING TIME BEGINS</b>		19.0	
		12	Neptune in conjunction with the Sun		20.0	
Mon.	14				21.0	
Tue.	15	17 06	Algol at minimum		22.0	
Wed.	16				23.0	
Thu.	17				24.0	
Fri.	18	7 18	<b>full Moon</b>		25.0	
		13 55	Algol at minimum		26.0	
Sat.	19				27.0	
Sun.	20		<b>Zodiacal light vis. in N lat. in W after evening twilight for next two weeks</b>		28.0	
		9	<b>Venus greatest elongation W (47°)</b>		29.0	
		15 33	<b>Equinox</b>		30.0	
		22	<b>Mercury 1.3° S of Jupiter</b>		31.0	
Mon.	21		Mercury at greatest heliocentric lat. S			
		10 44	Algol at minimum			
Tue.	22					
Wed.	23					
Thu.	24	0	Moon at perigee (369 760 km)			
		7 33	Algol at minimum			
Fri.	25	5 37	<b>last quarter</b>			
Sat.	26					
Sun.	27	4 22	Algol at minimum			
Mon.	28	3	Mars 4° N of Moon			
		10	Venus 7° N of Moon			
		12	Saturn 4° N of Moon			
Tue.	29	13	<b>Venus 2° N of Saturn</b>			
Wed.	30	1 11	Algol at minimum			
		15	Jupiter 4° N of Moon			
Thu.	31					

†Parts of E Antarctica SE Australia SE Melanesia SW Polynesia



# 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.

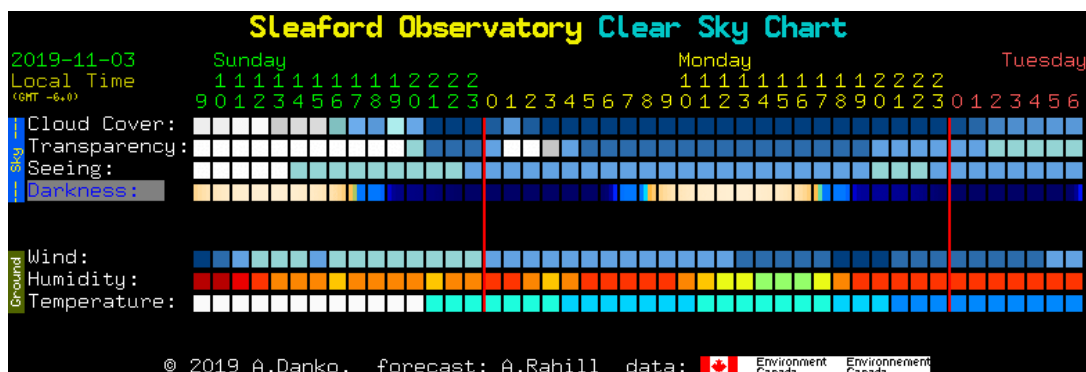
Starting in 2006 I began hosting Observer's Group meetings and as the years went on I accumulated some other responsibilities as listed above. Not sure if everything will be picked up by the members but I am hoping someone will step up to host the Observers Group and assist with these other responsibilities.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



## 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 \$15.00
R. Morales			
<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://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](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>