

# Saskatoon Skies

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

Vol. 45, No. 11

November 2014



15:15 CST



16:00 CST

*Although some of the October 23<sup>rd</sup> Partial Solar Eclipse was clouded over for viewers in Saskatoon, Ron Waldron was 200 km north at the time of the eclipse where skies were clear. These two photos were taken by Ron at 15:15 and 16:00 respectively. Camera used was a Canon T2i and was taken using prime focus through his Antares 80mm refractore scope and a proper solar filter. ISO 400 and 1/500 sec exposure*



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To view *Saskatoon Skies* in colour, see  
our Website:

<http://www.usask.ca/rasc/newsletters.html>

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# MEMBERSHIP? JOIN TODAY!

**Regular: \$82.00 /year**

**Youth: \$43.00 /year**

**Family: \$77/year**

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. If you do not want to join at this time, ask to get onto our FREE 3-month Temporary Membership list. You will receive regular mailings of our Saskatoon Skies newsletter and will be invited to participate in Centre activities. Members are encouraged to renew early to avoid disruption in publications. Renew through the National Office at <http://www.rasc.ca/join-us>

## 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)
- SkyNews Magazine (bimonthly)
- use of the Centre library
- borrow the Centre's Data Projector to give astronomy outreach presentations – contact Les Dickson at [astrochem@sasktel.net](mailto:astrochem@sasktel.net)
- rent the Centre's Telescopes <http://homepage.usask.ca/ges125/rasc/telescopes.html>
- discounts to Sky & Telescope Magazine\*
- free, no-cost, no-obligation, 3-month temporary membership if you don't want to join right now!

\*New subscription or renewal of Sky & Telescope? Send new info or renewal notice, plus credit card # to Norma Jensen, 128 – 4th Street East, Saskatoon, SK S7H 1H8, or email her at [norj@sasktel.net](mailto:norj@sasktel.net).

## 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 966-6429.

### Observatory Hours:

January-February	7:30-9:30 pm
March	8:30-10:30 pm
April	9:30-11:30 pm
May-July	10:00-11:30 pm
August	9:30-11:30 pm
September	8:30-10:30 pm
October-December	7:30-9:30 pm

## SASKATOON CENTRE'S MAIN OFFICERS:

**President** – James Gorkoff, 306-644-1343

**Secretary** – Tenho Tuomi, 306-858-2453

**Vice-President** – Jim Goodridge, 306-370-8530

**Treasurer** – Norma Jensen, 306-244-7360

**Bottle Drive &  
Canadian Tire \$**  
By Jim Goodridge

If you cannot make it to a meeting but would like to contribute your Canadian Tire money please call me at 306-370-8530

**LIGHT POLLUTION  
ABATEMENT  
WEBSITE AT:  
[www.ras.sk.ca/lpc/lpc.htm](http://www.ras.sk.ca/lpc/lpc.htm)**

**Newsletter Editor** – Ron Waldron

**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 [rmwaldron@shaw.ca](mailto:rmwaldron@shaw.ca) in msword or text format. Images: .jpg please, no larger than 1 – 1.5 MB, sent by e-mail as attached files. **Deadline for submission of all articles for an upcoming issue is the first Friday of the month!**

A separate by-mail subscription to Saskatoon Skies is available for \$15.00 per year. 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 call the editor 306-382-9428 for rates. Members can advertise non-commercial items free of charge.

# RASC CALENDAR OF EVENTS

Nov 15	Observer's Group at Sleaford	Larry Scott
Nov 17	RASC Executive and General Meeting	Jim Goodridge
Dec 13	Observer's Group at Sleaford	Larry Scott
Dec 13 / 14	Geminid Meteor Shower	Larry Scott
Dec 15	RASC Christmas Potluck Social – No Executive Meeting	Jim Goodridge
Jan 17	Observer's Group at Sleaford	Larry Scott

For a complete list of club events, please check out: <http://www.usask.ca/rasc/activities.html>



## Christmas Social

for all members and guests  
Room 175 Physics Bldg  
University of Saskatchewan

Monday, Dec. 15th at 7:00 PM

### Program

## *Annual Christmas Potluck Supper*



**Note:** *there will not be an Executive meeting this month*

# Minutes of the October Executive Meeting – *Tenho Tuomi*

Chairman Jim Gorkoff opened the Executive meeting at 7 PM with 8 members present.

Moved by Jim Goodridge and Les Dickson that the minutes of September 15 be adopted as circulated. Carried.

## Committee Reports:

Vice-President's Report by Jim Goodridge.

November meeting will be a Webex meeting

December meeting will be a potluck supper

Treasurer's Report by Jim Gorkoff - end of year financial statements will be out soon.

Membership Report – 74 members in our Centre, 4700 members in RASC.

Fundraising Report by Jim Goodridge – will be looking at Sobeys' gift cards for November, looking also at M & M Meats gift cards.

Observing Coordinator Report – Next observing night October 25

U of S Observatory will be open for the solar eclipse on October 23

Newsletter Report – next deadline November 7.

Sleaford Site Report by Rick Huziak.

Warm up shelter cleaned and holes closed.

Some trim left to be done.

Patterson dome will be taken down and disposed of this Fall.

Events Coordinator Report by Jim Goodridge.

90 to 100 visitors at Sleaford open house with 9-10 telescopes, Stan Shadick did a constellation walk, \$17.70 came in donations.

All handouts should have our Centre stamp.

The following events are insured;

Earth Hour

Astronomy Day, 2 nights

Farmer's Market

SSSP

Grasslands

Sleaford Open House

Moved by Jim Goodridge and Jim Gorkoff that the October 23 Solar Eclipse at the U of S observatory be added to the list. Carried

Moved by Tenho Tuomi and Jim Gorkoff that the Lucky Lake Library Astronomy Night on October 21 be added to the list.

SSSP Report by Jim Goodridge – Committee meeting at end of November to plan for 2015, same members.

National Report – Next National Advisory Committee/Executive meeting is on November 8.

Thanks to Jim Gorkoff for volunteering to advise National on legal matters.

The Elections Committee gave its report.

The meeting adjourned at 7:45 PM.

# Minutes of the Annual General Meeting – Tenho Tuomi

The General Meeting opened at 8 PM with 14 members present.

Jim Goodridge gave a summary of the Executive Meeting business.

The Elections Committee presented the following slate,

Executive:

President – Jim Goodridge

Vice-President – *vacant*

Secretary – Tenho Tuomi

Treasurer – Norma Jensen

National Advisory Council Representative – *vacant*

Directors:

Ron Waldron

Les Dickson

Rick Huziak

Norma Jensen

Tenho Tuomi

Other officers:

Newsletter – Ron Waldron

Events Coordinator – *vacant*

Sleaford Site Coordinator – Darrel Chatfield

Observing Coordinator – Larry Scott

Fundraising Coordinator – *vacant*

Councillor at Large – Les Dickson

Meeting Room Coordinator – Jim Young

Photographer and Archivist – George Charpentier

Move by Ellen Dickson and Jim Goodridge that nominations be opened from the floor. Carried.

Moved by Jim Young and Rick Huziak that Jim Gorkoff be nominated as director. Carried.

Moved by Jim Young and Jim Goodridge that nominations cease. Carried.

All positions were declared as elected by acclamation.

Jim Gorkoff gave thanks for the support of the Centre over the past two years. and the incoming president Jim Goodridge thanked Jim Gorkoff for his work over the past two years.

Jim Goodridge presented the format of meetings for the next year,

7:00	Executive meeting open to all members.
7:50	Coffee break and visiting
8:15	5 minute summary of business
8:20	15 minute presentation at beginner's level
8:40	Main presentations
9:45	Optional socializing after-meeting at Alexander's

Rick Huziak gave a power point presentation of the Northern Prairie Star Party which is held every September South-East of Edmonton in Alberta.

Jim Goodridge gave a talk on “Aperture Fever and Coma Correction”.

The meeting adjourned at 9:35 PM.

## President's Message – *Jim Goodridge*

As the new president of the organization allow me to express my thanks at being given the opportunity to serve RASC Saskatoon. I would also like to thank the last year's executive and the new executive starting out. Serving the club is a very important function and your efforts are very much appreciated. Although things appear to run pretty smoothly we have a few holes in the organization that need to be mended. This can only be done by the membership, so I am going to let you know my thoughts on the matter and how you can help.

Our attendance at meetings is very low, we typically seem to be getting between 12 and 14 members a meeting. Putting together a presentation is actually a lot of work and we don't pay the presenters, so the least we can do is give them an audience. Please try to attend one or two more meetings this year than you did last year.

We are missing an events coordinator. Norma Jensen came up with a great idea and has suggested that individual members take on an event to coordinate and she has volunteered to look after the Sleaford Open House. I have asked Jeff Swick if he will still do the posters and media relations for the events and he seems to be OK with that. If you would like to look after an event, please let me know at the meeting.

Here is what we do:

March - Earth hour - public observing at The Centre Mall

March/April time frame - Astronomy Week - Public Observing at Lakewood Civic Centre on the Friday night and Beaver Creek on Saturday. You can volunteer to coordinate just one of the nights if you want.

May/June time frame - Solar observing at the Farmer's Market. Lately this has been done in conjunction with Wild About Saskatoon.

August - Saskatchewan Summer Star Party - This is run by the SSSP committee, please consider joining the committee, talk to me for more info.

September/October - Sleaford Open House, Norma put dibs on this.

December - Year end Potluck.

What we could do if you would like to organize it: September - International Observe the Moon Night.

There is also a new rule in place. No one is allowed to say "you should" unless it involves a legal matter or reports that need to be filed. If you have the need to say "You Should" replace those words with "I Will" and see if it still sounds like a good idea. We have many very smart members so there is no shortage of good ideas, what we lack are people to do the work so as of now we are Do-ocracy, actions really do speak louder than words.

We need a vice-president so please put your name forward for that.

We need a National Advisory Committee Representative.

We need a Program Director to put together the monthly presentations.

We have a Fiftieth Anniversary coming up in 2018. I have an idea as to how we might celebrate it so come to the meeting to find out what it is.

Our meeting format has changed - The general meeting is from 7:00 PM until 7:50 PM. In the general meeting we discuss matters of importance to the functioning of the club, this is not just for the executive. From 8:00 to 8:15 PM we have socializing time; 8:15 to 8:20 PM is for announcements; 8:20 to 8:35 PM is for short presentations or beginners questions. 8:40 to 9:25 is for the main presentation. At 9:45 we reconvene for the after meeting meeting at Alexanders, everyone is welcome.



## The Northern Prairie Star Party – *Richard Huziak*

*The Northern Prairie Star Party is held at Black Nugget Lake Regional Park just southeast of Tofield, Alberta. The trip from Saskatoon measures 449 km driving west on the Yellowhead, then jogging down to Battleford and continuing down Saskatchewan Highway 40/Alberta Highway 14. The drive past Cut Knife (world's largest tomahawk), Wainwright (great restaurant and museum in the old train station, bird sanctuary, large trestle bridge over the Battle River), and Viking (a prehistoric ribstone associated with the Iron Creek meteorite "mother bison") add interest to the already fall-scenic journey, so plan some extra visiting time on the way to, or coming back from, the star party.*



The NPSP was held September 23 to 28. For my fifth visit to the party, I drove in on Thursday morning to the greeting of organizers Rick & Susan Bramm. There were fewer than a dozen people at the star party – mostly astrophotographers trying to get in a few good nights. Since the NPSP is only 45-minutes from the outskirts of Edmonton, potential attendees make their plans and can come or go depending on the weather. And some make this even a series of day-trips.

After a bit of visiting, I registered (\$20/\$30/\$40 for single/couple/family), then set up my tent, unpacked the solar scope and took in the great sunspot groups (74 spots in 7 groups), then chatted some more and got the night-scope ready. Cirrus cloud threatened us at sunset, but once the temperature dropped a bit (from +23°C daytime to +10°C evening) the cirrus disappeared and we got in some decent observing. The cirrus continued to come and go, but for the most part, the skies held well enough. As usual, during dusk, I measured some variable stars, then graduated to observing the string of geosynchronous satellites (at about  $-8^\circ$  from the celestial equator at the  $+53^\circ$  latitude of the party.) I managed to track down about 20 satellites, including a very interesting tight group of 5 all within  $\frac{1}{4}$ -degree.

I woke up on Friday morning to the sound of rain pouring onto the tent; what's new this year at star parties? So I took the opportunity to drive the 21 kilometres into Tofield and catch breakfast at our traditional restaurant at the Tempo gas station. They serve breakfast all day, so after a long night's observing, a home-cooked omelet with fresh farm potato hash-browns is always delicious, and as a bonus, *Dr. Oz* was playing on the big screen TV. Could life be better? Tofield is a typical small prairie oil town – a few bars, a well-hidden IGA grocery store, a few gas stations and shops and a liquor store at the east end of town, just off the highway. You can stock up on camping essential in town.

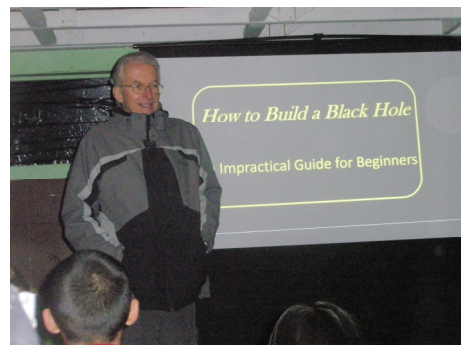


The rain stopped early in the afternoon, then picked up again as soon as I wrote this line (I'm sitting in the log-cabin cook-shack typing.)

Friday evening had an overnight low was +4°C, with frost! But once again, the sky cleared and allowed a few hours of observing with cirrus rolling in and out. Again, I observed some variables and more geosynchronous satellites, and visited with a few brave newcomers. Just before midnight, as cirrus was making hole-hopping miserable, an excellent auroral display came up, and many photographers took advantage of the pulsating clouds and bright colours. It wasn't going to clear up anyway, so this display was well-timed.

Saturday is their busy programming day, with solar observing starting at 1 pm (that didn't happen) and then talks in the cook-shack, seating 40 with SRO-overflow, start at 2:30 and a potluck-assisted barbecue goes at 5 pm, followed by a door-prize draw. (I won a Celestron digital compass!) Because of these activities, attendance "swelled" to about 40 people. In past years, with better weather, attendance at this star party was 80 to 140 people.

The Saturday talks included Edmonton member Massimo Torri, *Hands-on Lunar and Planetary Astrophotography Tutorial*, well – not that hands-on, but a great tutorial on how to use a webcam and free software to take amazing lunar crater photos! Dr. Paul Hickson came from UBC to talk about *Extremely Large Telescopes* (concentration on Canada's contribution to the Thirty-Meter Telescope.) Dr. Doug Hube talked about *How to Build a Black Hole – An Impractical Guide for Beginners*, hinting that our universe might be a black hole.



The star party put on a great potluck-assisted barbecue and provided hamburgers and hot dogs while everyone else provided extra-yummy food! This was a good time to socialize with many old friends. After the barbecue, Saturday evening's activities concluded with a talk by Dr. Carlos Lange of the University of Alberta who put a small weather station on the Phoenix Mars lander and talked about *Recent Mars Missions and the Cycle of Water on Mars*.

All talks were very good and lots of fun. The evening concluded with a campfire, since the sky simple was not going to clear, but it also had stopped raining in the afternoon, and stayed that way through the evening. On Sunday morning, I packed up and drove back to Saskatoon, but not before stopping at Buzzard Coulee and metal detecting a new 7.4-gram meteorite!

The Black Nugget Lake campground office has basic supplies, ice, flush toilets, coin-operated hot showers, and drinkable tap water. Camping rates are \$20 for non-powered, non-serviced sites, and \$26 for the limited number of powered sites. There are other things to do here, when you are not visiting and if it is not raining. The campground is a repurposed coal strip-mine, so most of the campsites are private peninsulas on the many connected finger-lakes. So if you have a canoe, it makes a very good wind-protector for the telescope tied to the roof of your car. The lakes are also stocked with trout, and with an Alberta fishing license, you can try your luck. There is also a hiking path that gives you a few kilometre-long overview of the rolling terrain. Because of the tailing hills, the terrain provides lots of exercise and great vantage points to view the lakes. It takes a few hours to skirt the whole park in a pleasant walk. Of course, if it rains, you just get wet and cold.

A new development is the opening of *Coal Creek Golf Resort* immediately north of Black Nugget Lake. This is a very beautiful 18-hole course repurposed from more of the cold coal mine and takes advantage of the rolling waste tailing hills and valleys. However, this course now puts more pressure on park, and threatens to star party because demand for campsites is now higher (when there was previously very little demand for campsites in September.) Just like Cypress Hills, development in the park areas forces changes to star party planning. The Edmonton Centre had also been thinking of building some club facilities in the park, but more tourist use might have them reconsider the plan.

This star party is smaller, but very friendly. Attendees are mostly Edmonton Centre members, but there are occasional visitors from Calgary and Saskatoon. But the sky here can be very good, and the Edmonton members are all a whole lot of fun to observe with. I highly recommend attending this star party!



## Observer's Group Notes – *Larry Scott*

There were some fine observing conditions and opportunities in October, 2014. I missed the lunar eclipse on the 8th due to its lateness on a school night but made up for it in the following weeks. The Sleaford Open House on the 18th was blessed with clear skies on a beautiful fall night. The turnout was perhaps down a little due to the clouds earlier that day but those that attended were treated to some very nice skies. The following week had a partial solar eclipse on the 23rd. Following some good advice I heard at a star party I was prepared to travel and my daughter and I were able to observe the eclipse from a field near North Battleford. Nice eclipse and a great big sunspot as an added bonus. Unfortunately my luck ran out for the Observers Group on the 25th as we were clouded out.

Next Observers Group is November 15th with moonless evenings from the 11th till the 26th.

## Sleaford Open House – *Jim Goodridge*

We had a very good attendance this year at the Sleaford open house. We started the day off with a BBQ and Darrell Chatfield did some repair work on a door on the warm-up shelter. For a change the sky was good. We had 10 RASC members' telescopes in use plus the University scopes in the roll off building. The estimate on guests was "around 100" and they were treated to many excellent views. Feedback was very positive. The highlight for me was looking at the Veil through Larry Scott's 18 inch, the only way to describe it is "WOW". Thank you to every one who came out to support the event.



# Observing Clubs and Certificates

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. Jeffrey, D. Chatfield, B.  
Christie, K. Noesgaard,  
M. Stephens, B. Hydromako, T. Tuomi, L.  
Scott, G. Charpentier, B. Johnson, M.  
Clancy, L. Dickson, B. Burlingham, K.  
Houston, Norma Jensen*

Ron Waldron	105
Wade Selvig	75
Garry Stone	57
Bernice Friesen	45
Wayne Schlappkohl	43
Barb Wright	40
Ellen Dickson	34
Jeff Swick	24
Graham Hartridge	9

## Chatfield BINOCULAR CERTIFICATE

### Certified at 35 to 40 Objects:

*M. Stephens, T. Tuomi, M. Clancy,  
R. Huziak, K. Maher*

Jim Goodridge	12
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## FINEST NGC CLUB

### Certified at 110 Objects:

*R. Huziak, D. Jeffrey, G. Sarty,  
D. Chatfield, T. Tuomi*

Larry Scott	Done!	110
Scott Alexander		97
Norma Jensen		72
Sandy Ferguson		23
Kathleen Houston		23
George Charpentier		13
Mike Clancy		7

## EXPLORE the UNIVERSE

### Certified at 55 to 110 Objects:

*M. Clancy, T. Tuomi, K. Maher,  
B. Gratias*

Wayne Schlappkohl	Done	55
Jim Goodridge		35
Sharon Dice		31

## Isabel Williamson Lunar Observing Certificate

### Certified at 140 Objects:

*T. Tuomi*

Norma Jensen	133
Jeff Swick	29

## HERSCHEL 400 CLUB

### Certified at 400 Objects:

*D. Jeffrey, R. Huziak, D. Chatfield, T.  
Tuomi*

Gordon Sarty	251
Scott Alexander	117
Sandy Ferguson	18
Larry Scott	20

## HERSCHEL 400-II CLUB

Darrell Chatfield	Done!	400
Tenho Tuomi	New!	343
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 on the National website.

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: [http://homepage.usask.ca/%7Eges125/rasc/Chatfield\\_Binocular\\_List.pdf](http://homepage.usask.ca/%7Eges125/rasc/Chatfield_Binocular_List.pdf)

"Isabel Williamson Lunar Observing Program Guide:

<http://www.rasc.ca/observing/williamson-lunar-observing-certificate>

Program details can be found at: <http://www.rasc.ca/williamson/index.shtm>



A picture of NGC 6894, one of the Herschel 400\_II objects. Most of them those objects are very small galaxies that don't show much in pictures, but this planetary nebula looks almost cute in a picture anyway, though at magnitude 14.4 almost impossible to see through a telescope

Tenho Tuomi