

Saskatoon Skies

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

Vol. 44, No. 6

June 2013



Left - Ron Waldron conducts an astronomy lesson with students inside the STARLAB Portable Planetarium. Right – the new Potash Corp Eco-Science and Indigenous Learning Centre near Beaver Creek. To find out more about this amazing tool and building as well as other outreach activities, see the article on page 4 of this issue – “Sharing the Passion – Living the Dream”



Saskatoon Centre
The Royal Astronomical Society of Canada
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WEBSITE:

<http://www.rasc.ca/saskatoon>

E-MAIL: skstars@shaw.ca

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

<http://homepage.usask.ca/~ges125/rasc/newsletters.html>

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MEMBERSHIP? JOIN TODAY!

Regular: \$80.00 /year

Youth: \$41.00 /year

Associate: \$33 /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 <national@RASC.ca>!

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
 - 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.

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, 644-1343
Secretary – Tenho Tuomi, 306-858-2453
Vice-President – Jim Goodridge, 370-8530
Treasurer – Norma Jensen, 244-7360

**Bottle Drive &
Canadian Tire \$**
By Colin Chatfield

If you cannot make it to a meeting but would like to contribute your Canadian Tire money please call me at 934-7046.

**LIGHT POLLUTION
ABATEMENT
WEBSITE AT:
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. **Articles can be sent by mail in any format to the Centre's mailbox.** Submitted materials can be returned upon request. Submissions may also be sent by e-mail to the editor at rmwaldron@shaw.ca as a .doc, no indents, no tabs, one line between paragraphs. 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. **DEADLINE for submissions** for each month's issue is the 1st of the month. Saskatoon Skies accepts commercial advertising. Please call the editor 306-665-3392 for rates. Members can advertise non-commercial items free of charge.

RASC CALENDAR OF EVENTS

June 8	Observer's Group at Dusk - Sleaford Observatory	Larry Scott
June 8	Rock Creek Star Party at Grasslands East Block	Rick Huziak
June 15	RASC Wind-up Bbq at Jim Goodridge's Acreage	J. Goodridge
June 17	Executive and General Meeting-175 Physics-U of S	
June 29 - July 2	General Assembly of the Royal Astronomical Society of Canada – Thunder Bay, Ontario	
July 6	Observer's Group at Dusk – Sleaford Observatory	Larry Scott
July 20&21	Grasslands DSP West Block Star Party - new Frenchman Valley campground	Rick Huziak
July 20 & 21	Ogema to Horizon Tourist Train and Astronomy Night	Mike Clancy
August 16&19	16th Annual Saskatchewan Summer Star Party 2012 (SSSP '12) - Cypress Hills Provincial Park DSP	Barb Wright or Rick Huziak

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

General Meeting for all members

June 17th at 7:30 PM

Room 175 Physics Building
University of Saskatchewan

PROGRAM

Ron Waldron

“Sharing the Passion – Living the Dream”

**Highlights of a lifelong astronomer's passion
for sharing the night sky**

Note: there will be an executive meeting at 6:30 PM



May Executive Meeting Minutes *by Tenho Tuomi*

Chairman Jim Gorkoff opened the meeting at 6:30 PM.

Minutes of the April 15 Executive meeting. Moved by Barb Wright and Les Dickson. Carried.
Vice-President's report by Jim Goodridge.

- A letter has been sent to the U of S regarding their outreach partnering proposal, giving some options in ways we could work together with our limited resources.

- Sobey's gift cards are here now.

- location has been marked 14 ft east of the school house for the new building, pending final approval from the U of S.

- Darrell showed alternatives to the garage package such as all metal shipping containers ranging in price from \$3700 to \$9500. These were discussed but not seen as an advantage.

- A final proposal and time line for the new building will be given at the June meeting.

Events report by Barb Wright.

- We have been invited by the Nature City Festival to join them on May 31 for a windup program.

The position of the meeting room coordinator was discussed. Jim Young volunteered to take over starting in September.

May General Meeting Minutes *by Tenho Tuomi*

Chairman Jim Gorkoff opened the meeting at 7:35 PM.

With Jim Goodridge handling the computer and webinar, the meeting started with an interactive talk by Tom Field of Field Tested Systems about doing spectroscopy with simple equipment. He demonstrated his software for analysing spectra (<http://www.rspect-astro.com/>).

After a coffee break the meeting resumed at 9:05 PM.

Minutes of the April 15 General meeting. Moved by Jim Goodridge and Barb Wright. Carried.
Committee Reports.

Vice-President's report by Jim Goodridge.

- A letter has been sent to the U of S regarding their outreach partnering proposal, giving some options in ways we could work together with our limited resources.

Membership report by Mark de Jong. 69 members including 3 life, 3 youth and 3-4 temporary.

Fundraising report by Jim Goodridge. Sobey's gift cards are available to be picked up.

Newsletter report – June 5 deadline for the June issue.

Sleaford site report given by Jim Gorkoff and Les Dickson for Darrell had to leave. See Darrell's report in the Executive minutes.

Events report by Barb Wright.

- Astronomy Day with the Nature City Festival at the Farmers Market, May 25, 8 AM to 2 PM.

- Centre Windup BBQ at Jim Goodridge's on June 15. Burgers supplied. Bring salad or dessert.

- Observing the Moon event on October 13. Details to follow.

SSSP report by Barb Wright. May 5 meeting with the Regina Centre went well.

Centre Rep report by Jim Gorkoff in Rick Huziak's absence. Executive met on May 6 with James Edgar to look over the new bylaws which will be adopted at the GA. Our bylaws will have to be changed to conform to the new national bylaws.

Meeting adjourned at 9:25 PM.

Sharing the Passion – Living the Dream *by Ron Waldron*

**All photos are by the author*

For most amateur astronomers, there are few activities in life that compare with being alone under a canopy of stars with telescope in hand. Indeed, for many of us it evokes a passionate and emotional response within, one that may be different for each of us, but nevertheless is completely autonomous. For me, that inner emotion is omnipresent with each and every trip to Sleaford dark site or to SSSP in Cypress Hills. However, unlike some dedicated amateur astronomers, I get my greatest thrill when I am sharing my passion with others. Let me explain.

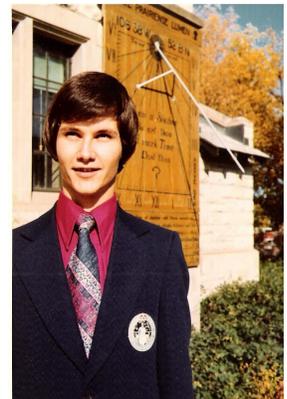
When I was 10 years old, I bought my first telescope. I saved my allowance for two weeks doing chores around our shack tent at Waskesiu Lake. The telescope was a 1.5” pirate style three section draw tube telescope. It cost me \$3.75 in 1962 but was well worth it – for it was this telescope that introduced me to the moon and the stars. I built a crude mounting out of plastic mini-bricks and pointed it out my second story window of our wartime house on 8th street. I gazed mostly at birds and tree branches but when I pointed it at the moon, I was hooked.



Two years later, I purchased my first real telescope, a 60mm Tasco on an altazimuth mount and began stargazing in earnest. This telescope could magnify up to 80X with the supplied Barlow lens. This is the telescope that introduced me to the planets, especially Venus, Jupiter, Saturn and Mars.

Four years later, I sold that telescope and used the money to purchase another 60 mm scope with somewhat higher magnification and on an equatorial mount. This telescope took me beyond the solar system into the realm of the brighter galaxies, star clusters, and nebulae. Eventually that telescope was sold as I took a wife, pursued teaching as an occupation, and raised three children. To get by, I purchased a quality set of binoculars which would serve me well for the next 30 years.

In my grade 12 year, Astronomy lecturer Ed Kennedy approached me to conduct tours at the U of S Observatory. He had found out my passion for astronomy through my teachers at Aden Bowman Collegiate. I started working on Wednesday evenings beginning in the spring of 1971. For the next four years, while working on my Bed. Degree, I learned how to use the telescope and work the crowds along with German born, Wendel Frenzel. It was while working there that I discovered my passion for sharing the universe with others. The observatory was open year round (even when it was -40 degrees C), yet I found that as long as there were people to interact with, I really did not notice the cold. I continued to work there, during my first five years of teaching and returned briefly many years later while working on my Med. Degree.



In the spring of 1978, my teaching took me to a National Convention of the NSTA (National Science Teachers Association) in Washington, DC when I saw a display demonstrating a portable planetarium known as STARLAB. I attended a few shows in the igloo-shaped tent and was struck by both its value

as an educational tool and its simplicity of use. Upon return to Saskatoon, I convinced the powers that be that if we purchased one for our system, I would be willing to in-service teachers in its use. We bought our first one at a cost of \$7,500.00. Due to high demand, we bought a second one in 1983 at a cost of \$12,500.00. Both STARLABS are still circulating through the system, visiting schools in 10 day intervals with star shows being conducted by teachers I have trained. Now, in retirement, I have offered my services to come to the schools who book STARLAB and be the main presenter for as many classes as they wish. It is always a thrill to see the excitement in a school when STARLAB is set up in their gym. Although it can never replace the beauty of a real night sky, it is a more than acceptable substitute for bringing the stars into the classroom and not worrying about cloudy or cold conditions.



In 1981, I applied for, and was awarded a one year internship at the Manitoba Planetarium in Winnipeg. It was during this time that I learned how to write and produce planetarium shows as well as to narrate live shows for the public. It was an amazing year, one that I will always treasure and one that helped me to improve the work I was doing with STARLAB in the Saskatoon Public School Division.

Eight years ago, Rick Huziak asked me if I was interested in continuing our Centre's Outreach program by taking over most of the evening requests to go to Brightwater Environmental Centre, an outdoor school program run cooperatively by Saskatoon Public Schools and the Salvation Army. I went with him on a couple of sojourns to "get my feet wet" and found that I really enjoyed sharing my hobby with school children, answering their myriad questions (anything goes) and hearing and seeing their response at the telescope when they viewed Saturn, Jupiter, or the moon for the first time. You might say that I was hooked and have been reaching out to schools ever since then. I do approximately 25 – 30 outreach requests every year and that number continues to grow.



In 2011 the Saskatoon Public School Division applied for and received a million dollar grant from the Potash Corporation to build an EcoCentre at the Brightwater site. It was completed in April of 2013 and I was one of the first to do a presentation inside. The building is fabulous as there is a ground level wrap-around deck for students to view and admire a 180 degree view of the Beaver Creek Valley from high on a hill. They also are offered an unobstructed view of the east, south and western sky for my Star Talks. The

architects guaranteed dark skies by allowing only two solar powered full cut-off lights over each of the two doors and no other lights anywhere around the outside of the building

In June of 2012, I retired from my 36 year career as a middle years teacher with the Saskatoon Public School Division. During my career I shared my passion for science and astronomy by taking students to the U of S Observatory, on overnight camping trips, and by conducting mini-star nights for students and their parents at the school.

With newly available time on my hands, I pondered my career and decided to continue to offer my services as an amateur astronomer willing to come into schools or attend large gatherings and share my passion for viewing the night sky. To that end, schools are now offered the opportunity to have me come in and present a Star Show inside the STARLAB planetarium to their students. The schools book the equipment for one or more days and I come in as a guest to present the shows. The shows vary in age from Kindergarten to grade 8. Although most of my shows highlight the current night sky and a few stories from mythology, this fall I will be offering a new show entitled – the Native Star Legends – an Aboriginal Perspective. There is a growing demand for more aboriginal teaching in school systems across our nation. The Saskatoon Public School Division has purchased the Native American Star Cylinder which for the most part is under-used. I hope to be able to fill that niche in children's education and on the way learn another viewpoint of the night sky.



Although I have only been retired for a year, the opportunities that have come my way to continue to share my passion for the stars with STARLAB and STAR TALKS is very satisfying and is allowing me to live my dream in my retirement years. I consider myself both lucky and fortunate.

Note: *There will no be a Summer issue of **SASKATOON SKIES** this year as your editor will be travelling through the United Kingdom (Ireland, Scotland, and England). My e-mail address rmwaldron@shaw.ca will still be available to receive articles on your summer observations or on your experiences at SSSP 2013. The deadline for the September issue is **Friday, Sept. 6th, 2013***

SSSP - 2013 by Barb Wright

Plans for SSSP 2013 are coming together nicely. There's something to be said for putting together a star party of this magnitude for so many years! It just keeps getting better and better. Jen Newman of Edmonton Centre is our Fr. Kemble speaker, talking about the Whitecourt meteorite impact crater. We are also pleased to have Dr. Erica Bird for the Under Living Skies public lecture Thursday evening. Check out more information about them on our website.

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



Be sure to get your name in for Alan Dyer's workshop, Capturing the World at Night: Nightscape and Time-lapse Techniques. Space is limited.



Cypress Hills Interprovincial Park is planning a Dark Sky Festival for the week before SSSP. Details are not yet available, but I am confident that it will be well worth coming early and enjoying a few extra days at the park before SSSP begins.

Look into our schedule on the website: information about all the speakers and clinics, the BBQ and banquet, public star nights that Regina hosts at the park's observatory. Read about all the regular activities of SSSP. Get your best astrophotos and sketches ready to be displayed for the contest. There will also be space for astronomy art, let us know that you would like room to display your astronomy-related art work - quilting, drawing, sculpture - whatever your artistic talent.

Registration is open, get your form in before July 5 to beat the early bird deadline and save a few bucks. August 8 to 11 - we'll see you at the Meadows.

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The Five Visible Planets This Month

adapted from Earthsky.org

Venus (dusk) Venus, the brightest planet, will remain in the evening sky for the rest of 2013. It's fairly low in the western twilight this month, so an unobstructed horizon in the direction of sunset is best for observing Venus at dusk and early evening. Venus, whose cloud cover is very reflective of sunlight, ranks as the third-brightest celestial luminary after the sun and moon! The planet of love. How can anyone not enjoy Venus when it's in the evening sky?

Plus Venus will do something wonderful in June. Read on.

Mercury (dusk) Like Venus, Mercury climbs upward from the glow of evening twilight at the beginning of the month. Whereas Venus climbs upward from the setting sun all month long, Mercury slowly falls toward the sunset, starting on June 12. Mercury and Venus will meet up for a conjunction in the western evening sky on or near June 20. Mercury is fainter than Venus but brighter than most any star. Best of all, Mercury and Venus will occupy – or nearly occupy – a single binocular field from about June 1 to June 24.

You'll want to catch the attraction low in the western sky after sunset in the first several weeks of June, because this is the Northern Hemisphere's best chance of catching Mercury in 2013!

As the innermost planet, Mercury comes and goes in our sky rapidly. It'll continue its evening apparition all month long, to swing from the evening to morning sky on July 9, 2013. It'll return to visibility in the morning sky in late July and early August 2013.

Jupiter at dusk, first week of June It'll be hard to catch Jupiter blazing away in the harsh glow of dusk in the first week of June, but early June presents your best chance of spotting Jupiter after sunset this month. This world will sit close to the sunset point on the horizon (and on line with the planets Venus and Mercury) about 45 to 60 minutes after the sun goes down. After that, Jupiter will fade quickly from the evening sky as the king planet swings behind the sun on June 19, to transition from the evening to the morning sky. However, Jupiter will be sitting in the glare of sunrise and not readily visible in the morning sky until July 2013.

Saturn (dusk until wee hours after midnight) Saturn is no match for Venus or Jupiter in brightness, but it's still as brilliant as the brightest stars. It shines like a gentle beacon in the June 2013 nighttime sky. Earth flew between the sun and Saturn on April 28, so Saturn is still out for much of the night this month. Best yet, perhaps, Saturn lodges at its highest point for the night at nightfall. From mid-northern latitudes, Saturn is found in the southern sky after sunset.

Just as it did last year, Saturn is still shining relatively close to Spica, the brightest star in the constellation Virgo. You can distinguish Saturn from Spica by color. Saturn shines with a *golden* hue while Spica sparkles blue-white. Binoculars help to accentuate color if you have difficulty discerning the difference with the unaided eye.

Watch for the moon to swing close to the ringed planet Saturn on June 18 and June 19.

Binoculars won't reveal Saturn's gorgeous rings, but a small telescope will. The rings are inclined by nearly 17° from edge-on in June 2013, showing us their north face. The rings will appear open most widely in October 2017, displaying a maximum inclination of 27°. As with so much in space, the appearance of Saturn's rings from Earth is cyclical. In the year 2025, the rings will appear edge-on as seen from Earth. After that, we'll begin to see the south side of Saturn's rings, to increase to a maximum inclination of 27° by May 2032.

If you have access to a telescope, you can also seek Saturn's moons. Saturn's largest and brightest moon Titan is fairly easy to observe in a small telescope.

Saturn will remain in fine view in the evening sky until September or early October 2013.

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. Hydomako, T. Tuomi, L.
Scott, G. Charpentier, B. Johnson, M.
Clancy, L. Dickson, B. Burlingham, K.
Houston*

Norma Jensen	110
complete	
Ron Waldron	105
Wade Selvig	75
Garry Stone	57
Bernice Friesen	45
Wayne Schlapkohl	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	Up!	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		66
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 Schlapkohl	Done	55
Sharon Dice		31
Jim Goodridge	Up!	35

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
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

"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>