

Saskatoon Skies

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

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April 2016



This great shot is of comet 252P/LINEAR, was taken by Tenho Tuomi on the morning of April 2, see page 9 for more info!



Saskatoon Centre

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To view *Saskatoon Skies* digitally,
see our website:

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

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MEMBERSHIP? JOIN TODAY!

Regular: \$85.00 /year

Youth: \$45.00 /year

Family: \$80/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
- rent the Centre's Telescopes <https://www.usask.ca/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!

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:

Interim President – Les Dickson

Vice-President – to be filled

Secretary – Tenho Tuomi, 306-858-2453

Treasurer – Norma Jensen, 306-244-7360

National Council Rep – to be filled

Bottle Drive &
Canadian Tire \$
By Les Dickson

If you cannot attend a meeting but would like to donate your Canadian Tire money please email me at astrochem@sasktel.net

**LIGHT POLLUTION
ABATEMENT
WEBSITE AT:
www.ras.sk.ca/lpc/lpc.htm**

Newsletter Editor – Kris Ohnander

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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 krisohn@gmail.com in msword or text format. Images: any format, less than 30MB, 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 email the editor at krisohn@gmail.com for rates. Members can advertise non-commercial items free of charge.

RASC CALENDAR OF EVENTS

April 8	Lakewood Star Night	Dale Boan
April 9	Farmers Market	Les Dickson
April 9	Beaver Creek Star Night	Dale Boan
April 18	RASC General Meeting	Les Dickson
May 7	Observers Group	Larry Scott
May 16	RASC General Meeting	Les Dickson
May 24	Nature City Festival Solar Observing	Les Dickson
June 4	Observers Group	Larry Scott
June 20	RASC General Meeting	Les Dickson

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



March RASC General Meeting

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

Monday, April 18th, 2016 at 8:00PM

Presented by Hope Boyce:

***The Study of Stars around a Possible Black Hole in
the Large Magellanic Cloud***

Presented by Rick Huziak:

The Pocket Star Atlas Jumbo Edition

***Rick's review of this atlas will appear in a future issue of the JRASC.
The Saskatoon Centre gets a sneak preview.***

Note: There will be an Executive meeting at 7:00PM

James Edgar Visits Saskatoon – *Les Dickson*



Alan Duffy, James Edgar and Les Dickson tour the Canadian Light Source. Photo taken by Ellen Dickson.

James Edgar, current President of the RASC, came to visit Saskatoon on March 20 and gave a talk to the Centre at the general meeting the evening of March 21. His talk, *Synthesis of Elements in Stars*, was well received by the 20 or so members in attendance.

James arrived on Sunday afternoon. Rick Huziak played host for James and provide him with a place to stay for the two nights of his visit. On Sunday afternoon, Rick Huziak gave James a tour of some of the sights to see on the campus, including the telescopes on the roof of the Physics Building. Les and Ellen Dickson joined them for dinner at Montana's restaurant on Eighth Street. The next day, after some down time for James, he joined Les and Ellen Dickson for a tour of the Light Source, hosted by Alan Duffy. This was a very complete tour, with Alan taking the group down to the main floor of the facility to look inside some of the beamline experimental enclosures. Many thanks to Alan for giving the tour. Before the evening meeting, James joined 10 members of the Centre for a great meal at Manos restaurant. Thanks to everyone who attended. After the meeting Monday evening, a number of us joined James at Alexander's restaurant for an "after-meeting meeting."

We thank James for coming to Saskatoon to talk to us, and to the RASC for funding his trip.

Earth Hour 2016 – *Les Dickson*

The RASC Saskatoon Centre teamed up with the Circle and Eighth Mall to celebrate Earth Hour March 19th. Earth Hour is a symbolic 1-hour lights off event that takes place once a year on the last Saturday of March. It's aim is "...to raise environmental awareness and get us doing small things in our daily lives that together can have huge impacts." For us astronomers in the RASC, it is an opportunity to show city dwellers what can be seen from the city when the lights go out. The mall turned off the parking lot lights from 8:30 pm to 9:30 pm. During that time we had telescopes and binoculars set up outside the east-side entrance near the Tony Tomas Restaurant.

I would like to thank the members of the Centre who came out to show the night sky to passing patrons: Marcel Mueller-Goldkuhle, Curtis Tuplin, Erros Frazer-Harrison, Brent Burlingham, Cam McClellan, Dale Boan and Ellen and Les Dickson. Special thanks to Dale Boan for organizing the event and to Jeff Swick and the staff of the Mall for making this event a success.



The RASC booth both setup and in action at this year's Earth Hour at the Centre Mall.



These pictures from Ron Waldron show the crowds gathered outside to look through the scopes.

Sleaford Updates – *Darrell Chatfield*

We plan on having wiring run from the old schoolhouse at Sleaford to the new shed. We also would like to do wiring inside the shed, which will include red and white lights, and some plugs, and general lights. I have talked with the original electrician who installed the underground wiring back in 1997, and he said he would be interested in doing either all the work, or just the trenching and wiring up to a new panel in the shed. Rick and I could wire up inside the shed, to save on cost. If the electrician did all the trenching and inside shed wiring, the cost would be around \$5000 or less. It would certainly be less if we did the inside wiring ourselves. So we are seeking club approval to be able to do this work this year.

A few other items we need to do at Sleaford are: re-stain or replace the decking to the warmup shelter; fix the bathroom floor and make sure new shed is mouse proof. There are some other, smaller items, which we can do as time permits.

SSSP 2016 Update – *Les Dickson*

The SSSP committee met on March 31 to put the finishing touches on the on-line registration portion of the new web site and start the set-up of our business PayPal account to enable electronic payment of registrations and orders. Andrew Kostiuk is to be commended for his hard work in setting this all up for us. He walked our Treasurer Norma Jensen through the procedure to set up the PayPal account. We should have it all in place to open registration mid-April, the same time as the Provincial Parks department opens camping reservations for Cypress Hills Interprovincial Park.

In a new development, Alan Dyer will be running a workshop on the Friday afternoon on the use of *Photoshop for Astronomy*. We expect to have room for about 20 people at a cost of \$80 per person. This will be a hands-on workshop with pictures processed on attendees' laptops. For more information, visit Alan's web site at <http://www.amazingsky.com/photoshop-workshop.html>.

We welcome a new member to our committee: Gordon Brent Harrold. Gordon (or Brent as his often called) has volunteered to be our Meadows Coordinator, an important on-site job. We thank him for stepping up to help. We still need a Volunteer Coordinator to make this all work. If anyone is interested, please contact Les Dickson at astrochem@sasktel.net. Our next meeting is scheduled for April 28.

Meet the Saskatchewan Aurora Hunter

– Colin Chatfield



Since this is my first article submission for the newsletter, I figured maybe I should introduce myself a bit. I have always had an interest in photography and the night sky. My Dad, Darrell Chatfield, influenced both of those hobbies. I learned photography on lots of my grandfather's point-and-shoot, garage sale special cameras, then on a Canon AE-1 and Pentax K1000. Once I was able to afford my own, I ended up getting a Canon AE-1 just like my Dad's, as I was most familiar with that camera. I used that for a number of years, and then moved to a Nikon F80. From there I got my first DSLR, the Nikon D80 and then a D90. I discovered my love of night sky photography with those cameras and was fortunate to have gone out shooting consistently with my friend Bob Johnson. As for the astronomy side of things, I learned the night sky as a kid, again from my Dad. He always had telescopes out and I would learn about the universe from him.

Other than photographing with others, I am self-taught. I found what I like to do and ran with it. I figured out what I needed to do and got the equipment I needed to do it. I was also fortunate to borrow my Dad's Celestron C8 telescope to do some very amateur astrophotography. I learned how to mount my DSLR on the telescope and mostly ended up taking pictures of the Moon, which I always enjoyed.

Once I got more serious into night photography, I needed to upgrade my camera. I found a used Canon 40D that worked well, and picked up a new lens, the Tokina 10-17mm fisheye. Then I found I could

take shots of the aurora with that combination. And it seemed that for many years, it was mostly my friend Bob and I out shooting the aurora. In the fall of 2014, I wanted to change that. I wanted to get people out of their house and instead of always looking down at their phones, to look up and appreciate the night sky we have here. That is a lot easier to do, of course, out of the cities and the light pollution. In October of 2014, I created the Saskatchewan Aurora Hunters group on Facebook. I added 20 of my friends and slowly but surely more joined. By March of 2015, we had about 175 members. That was about to change dramatically on March 17. The aurora came out stronger than I had ever seen them. There were only a couple of us around the province shooting them that night. It was one of the most amazing displays I've ever seen. I posted the photos I had taken later that day, and was soon contacted by the media about them. The Saskatoon Star Phoenix did a full-page article with pictures of the aurora on March 18. Within two days, my group had grown to 350 people. CBC Saskatoon did a radio interview with me shortly after that, as well as various online articles with other media outlets. The group grew even further after that. Today we sit at just over 1800 members and slowly grow each week. Many are quite active and post regularly. Some of our members have been in the RASC as well. My goal is to continue to inspire people about the night sky. If our two groups can work together and make that happen and increase the interest, then that would be great.

Dark Sky Weekend Events

– Les Dickson & Dale Boan

The RASC Saskatoon Centre is hosting a Dark Sky Weekend April 8th and 9th. These events are part of International Dark Sky Week. We are inviting as many of our members to come out and help make these events a success.

Friday April 8th – Lakewood Civic Centre and Cliff Wright Library – 7:45 pm to 10:00 pm The RASC Centre will be holding a public talk from 7:45 to 8:45 in the Lakewood Civic Centre library auditorium. This will be followed by side walk observing night from 8:45 to 10:00 pm near the library entrance. Ron Waldron's talk is titled *How to Buy Your First Telescope*. We hope to have a table set up inside the entrance to the civic centre outside the library to hand-out material and answer questions. I would appreciate having members come out to set up telescopes for the public viewing portion of the evening, weather permitting.

Saturday April 9th – Farmer's Market, Avenue B S – 8 am to 2 pm The Centre will have a table display at the Farmer's Market from 8 am to 2 pm out at the east end of the covered walkway at the east side of the building, weather permitting. We hope to be able to have a few solar 'scopes out to observe the Sun and Venus. If weather does not permit us to be outside, we have been assured that room for a display table will be made available inside. We need to set up the display at 7:30 am. Ellen and Les Dickson will be there for sure; help is always welcome. In addition to 'scopes, we need bodies. I would appreciate members coming out to greet the public and answer questions. If people can fill in two-hour shifts: 8 am to 10 am, 10 am to noon, noon to 2 pm, we would really appreciate it. **If you can help, please contact Les Dickson at astrochem@sasktel.net or by cell (voice or text) at 306-270-9184 by Friday.**

Saturday April 9th – Beaver Creek Conservation Area – 6:30 pm to 11 pm. We are out at the Beaver Creek Interpretive Centre for *Beavers and Bats and Stars*. At 7:00 pm the interpretive staff will present

a talk on nocturnal wildlife in the area. At 8:00 pm Ron Waldron will present a talk on *What to See in the Evening Sky*. At 9:00 pm we will have Public Observing with members' telescopes. We encourage as many members as possible to come out and participate, weather permitting. If the weather is poor, come out anyways to two very good talks. We thank the Interpretive Staff, especially Senior Interpreter Kenton Lysak for their cooperation in putting this event on.

We thank Dale Boan for organizing these events. Unfortunately he will not be in the country for that weekend, so Les and Ellen Dickson will be "Site Captains" for the events.

Comet 252P/LINEAR – *Tenho Tuomi*

Periodic comet 252P/LINEAR that appeared in our skies in March has an orbit that takes it between the orbits of Jupiter and the Earth every 5.33 years, though its orbit has changed over the years due to the influence of Jupiter. It has another smaller comet in the same orbit, P/2016 BA14 (PANSTARRS), which may have been part of it at some time.

Comet 252P is a near earth object, and made the fifth closest pass to earth in March of any recorded comet. It was first visible from the southern hemisphere where it became a naked eye object. It is in our northern skies now and fading, but still much brighter than predicted.

Technical specifications: Canon T5i, mounted on an F/5 80mm telescope, 7x2minute exposures, ISO 1600.

Observer's Group – *Larry Scott*

Our scheduled Messier Marathon for April 2nd was not cancelled but was clouded out. Three members were out to observe a gorgeous sunset after a sunny, warm spring day. The total of my observing that night was about 10 minutes looking at Jupiter through the clouds. Prior to that we had a very good night on March 11th with 6 members in attendance. Highlights included the elusive Sirius B. Our next scheduled Observer's Group is May 7th with moonless evenings from April 26th till May 8th.

If skies are clear and you can get the morning of May 9th off, don't miss the Transit of Mercury.



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*

Ron Waldron	108
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	12
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FINEST NGC CLUB

Certified at 110 Objects:

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

Larry Scott	110
Scott Alexander	97
Norma Jensen	83
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	55
Jim Goodridge	35
Sharon Dice	31

Isabel Williamson Lunar Observing Certificate

Certified at 140 Objects:

T. Tuomi

Norma Jensen	140
Jeff Swick	29

HERSCHEL 400 CLUB

Certified at 400 Objects:

*D. Jeffrey, 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 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.astroloague.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>