

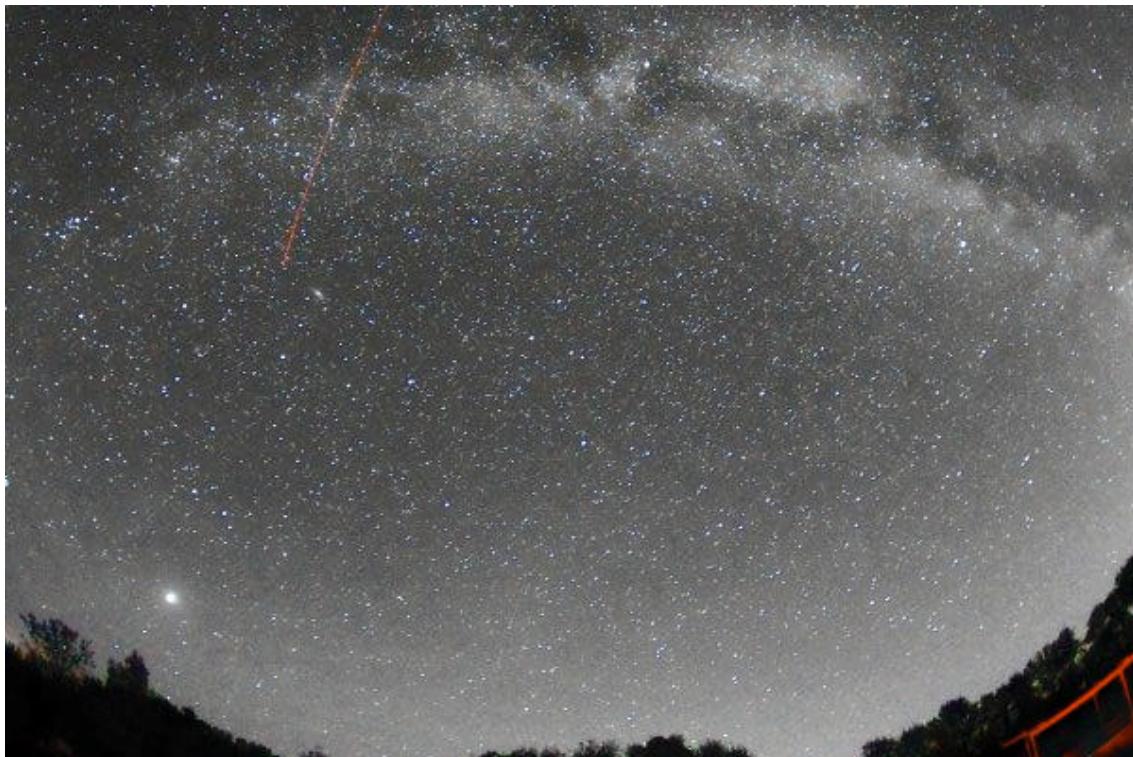
Saskatoon Skies

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

Vol. 42, No. 10

October 2011

The Milky Way from Sleaford



Bob Johnson wrote, "Here is a pic I took while I was out at observers night on the 24th, beautiful night, lots of people out and free donuts". But what is that red streak going by Andromeda toward Jupiter?

Photo by Bob Johnson



Saskatoon Centre

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

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

MEMBERSHIP? IT'S NEVER TOO LATE TO JOIN!

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 membership coordinator, Mark de Jong, or renew through the National Office and let Mark know that you did!

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
- The 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 – Jeff Swick, 373-3902
Secretary – Ron Waldron, 382-9428
Vice-President – James Gorkoff, 644-1343
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.

Newsletter Editor – Tenho Tuomi
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 ttuomi@yourlink.ca – any format, but preferred as plain unformatted ASCII text files without line breaks. Images sent by e-mail should be attached files.

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 20th of the preceding month. Saskatoon Skies accepts Commercial advertising. Please call the editor 306-858-2453 for rates. Members can advertise non-commercial items free of charge.

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

RASC CALENDAR OF EVENTS

Oct 17	RASC Executive Meeting - 6:30 pm, 175 Physics, U of S	Jeff Swick	373-3902
Oct 17	RASC General Meeting - 7:30 pm, 175 Physics, U of S	Jeff Swick	373-3902
Oct 22	Sleaford Open House	Jeff Swick	373-3902
Oct 29	Observers Group – Dusk, Sleaford Observatory	Larry Scott	934-5801
Nov 19	Observers Group – Dusk, Sleaford Observatory	Larry Scott	934-5801
Nov 21	RASC Executive Meeting - 6:30 pm, 175 Physics, U of S	Jeff Swick	373-3902
Nov 21	RASC General Meeting - 7:30 pm, 175 Physics, U of S	Jeff Swick	373-3902



RASC SASKATOON CENTRE

MONDAY, October 17, 7:30 PM

Room 175, Physics Bldg., U of S

ANNUAL GENERAL MEETING AND ELECTIONS

"Stories and Stars: Our Parks Await"
by Mike Clancy

Note: There will be an Executive Meeting at 6:30 pm.



Astronomy Day Open House At the Sleaford Observatory

Saturday, October 22

Potluck BBQ at 4:00 pm
Evening Observing Beginning at Dusk



Everyone is invited to celebrate Astronomy Day at the Sleaford Observatory, located about 65 kilometres east of Saskatoon. (For details about Sleaford, see our Website.) For those needing a guide to the site, a car convoy will be leaving from the east side of the field house main parking lot at 7:00 pm.

President's Message

by Jeff Swick

This upcoming general meeting will also include our annual election of the centers Executive All positions are open with the exception of President. Vice-President and Center rep as they are two year terms. Every other position is open and if you would like to stand for any position or just have a question about what a certain position entails please shoot me an email. The position of President is my 3rd position I've had on the executive and I've got to say that it's been way more fun than I ever thought it would be.

Also coming up this month is our annual open house on the 22nd out at Sleaford, As of this writing details are still being worked out and will be communicated via the Yahoo group. If you have an evening to volunteer please reach out to us. This is also a wonderful opportunity to bring your friends, family and co-workers out to the facility to see what you are a part of.

Speaking of being a part of....I was out at Sleaford last observers group and it was great to be part of such a large group of observers aside from "the usual suspects" there were some new members and a couple of temporary members who have been using the facility. Now that some of you have been out and see first hand what we offer I would suggest that if you become a paid member the timing is good for you to get trained on the use of the facility and get a key so that you may go out on your own and feel comfortable

being there. It's tentatively planned to have a training session on the afternoon of the open house.

In the what's new department, Barb Wright forwarded me a link to a new Canadian Astronomy forum called Great White North Astro that looks like it's going to be pretty cool. There may even be some opportunity to have private and password protected space on their servers for our center use and initial observations are that it is far more user friendly than our current Yahoo home. You can check it out at <http://www.gwnastro.ca>

Finally in this column I want to say a very BIG THANK YOU to Tenho for his past 8 years as newsletter editor. He's done a marvelous job over the years keeping us all focused and mindful of deadlines to get Saskatoon Skies to the membership on time each and every month. Tenho as you all know is stepping down and in fact this very issue will be his last as editor.

I've learned a lot from Tenho who has a quiet and confident style about him. For instance if I am late on deadline he won't say much...he just stands there with this poker face and a small smile will come across his face. I'm never sure if he's smiling because I'm late again or if he's smiling because he's picturing ripping me limb from limb for missing a deadline.

Who will be our next editor? Well you will just have to come out to the October meeting and vote one in.



September aurora by Colin Chatfield.

The Moon, taken Aug 9 with
a Finepix S700 camera @
f/3.5 1/125 sec iso 64 FL
211 mm, cropped and
converted to b&w, by Dick
Kirk, our newest member.
Welcome to the Centre.



Minutes of the Executive Meeting, September 19, 2011

by Les Dickson

- 1 Meeting began at 18:30.
- 2 Approval of Minutes of June Executive Meeting – moved by Les Dickson, seconded by Rick Huziak.
- 3 Fundraising – Colin Chatfield reported that he had recently received more Canadian Tire money. He is looking into what Winnipeg has been doing for fundraising as they appear to be very successful at this.
- 4 Membership – Mark de Jong reported that we have 72 members.
- 5 Treasurer – Norma had no report. She needs receipts for SSSP expenditures. She is sending Parks Canada an invoice and needs our business number.
- 6 Newsletter – Tenho has set the deadline for the next newsletter as October 1. The October newsletter will be the last with Tenho as editor.
- 7 SSSP – The star party was very successful. Rick has yet to bill a few people.
- 8 Activities – The Fall Sleaford Open House has been scheduled for October 22. Jeff Swick mentioned that a group of U of S undergrads wanted to hold an event out at the Sleaford site, but now it is likely not going to happen. There was a discussion on the use of the Sleaford School House by an outside person. Due to the state of the School House and legal liability, it was decided not to let the outside person use the School House.
- 9 There was a discussion on how to move along the work being done and work planned at the Sleaford site. A committee was struck to prepare options for the “garage proposal” to be presented at the November meeting.
- 10 There was a discussion on how to cost out our services to groups which request us to send members to give astronomy presentations or star nights.
- 11 Elections are to be held at the October meeting. All positions except President, Vice-President and Centre Representative are open. A committee was formed to nominate members to the open Executive positions.
- 12 Meeting was adjourned at 19:30.

Minutes of the General Meeting, September 19, 2011

by Les Dickson

- 1 Meeting began at 19:48.
- 2 Approval of Minutes of June General Meeting – moved by Barb Wright, seconded by Tenho Tuomi.
- 3 Fundraising – see Executive meeting minutes.
- 4 Treasurer – see Executive meeting minutes.
- 5 Sleaford site – Jeff briefly summarized the discussion from the Executive meeting, with Daryl Chatfield providing additional information. The grass will be cut by the RM prior to the Open House October 22.
- 6 Observer’s Group – There was a gathering at Sleaford September 24.
- 7 Newsletter – see Executive meeting minutes.
- 8 Elections to be held next meeting in October.
- 9 Jeff Swick showed pictures taken at SSSP 2011. Jeff used the opportunity to mention that we need more volunteers for next year’s SSSP.
- 10 Collin Chatfield and Aubree Worobetz may set up a display at the University sometime to attract new members.
- 11 Rick Huziak mentioned that the brochure holder at the University Campus Observatory needs more brochures.
- 12 Volunteers are needed for the October 22 Sleaford Open House.
- 13 Rick Huziak gave a presentation on the opening of the Cypress Hills Observatory.
- 14 Collin Chatfield gave a presentation on Astrophotography and his website.
- 15 Meeting was adjourned.

Rick and Kathleen's ASP Photo Album

by Kathleen Houston

Alberta Star Party, September 23-25, 2011, Hosted by the Calgary RASC Centre. 93 attendees.

Location: the stunning Red Deer River Valley badlands of Starland Region Park, north of Drumheller;



Group photo:
Joanne, Kathleen,
Murray, Susan Yeo
and Rick. Rick's
souvenirs included
sunstroke from
hiking in the
badlands, and a cut
foot from walking in
the Red Deer River!



Our camp: Kathleen's stash: note the new observing chair purchased at
SSSP 2011, and Rick's famous home made scope complete with
wallpaper chosen by daughter Amy.



ASP registration tent,
with plenty of
goodies to purchase.



My dusk walkabout,
checking out the
expensive mobile
observatories.



Jack Milliken and Roland Dechesne. Jack handed us a terrific Scavenger Hunt Viewing List. We received certificates for our efforts! I observed all 25 objects including the Blue snowball that was hard for me to find, in spite of Rick saying "it's easy!"



Alan Dyer's UARS satellite deorbit news report, just before Nico Koning's informative presentation on Quark Novae. Nico even had a strange recording from space of staccato-sounding radio emissions from a pulsar!

Dark Sky Lighting Monthly – Part I

by Rick Huziak <rickhuziak@shaw.ca>

Driving home from the SSSP'11 Closeout meeting a few days ago, I decide to detour down Boychuk Drive, a newly renovated street on the east end of Saskatoon. The street was widened, recurbed, repaved and dark-sky street lighting had been installed. This was my first opportunity to drive the street at night. The dark-sky lights are now the lights-of-choice for the City and new streets and renovations get them as standard issue. The lights are flat lens, full-cut-off (FCO) high-pressure sodium (HPS) style. The result is that the light is of superior quality as compared to the old (1950's design) drop lens cobra HPS lights. Why this is because the FCO lights have the luminaire (gas lamp) buried completely within the fixture and the flat lens assures that side- and up-light cannot glare toward the driver or pollute the sky. Light is put on the ground only where it is needed: in a controlled cone of light directly beneath the pole. The lights, due to less side-scatter, do produce a mild "dark-spotting" between the poles, but the spotting is minimal. With the lack of glare, your eyes relax, and the view down Boychuk is warm and pleasing, and adjacent sidewalks and any pedestrian become clearly visible.

The lighting of Boychuk, the Taylor Street Extension and other new roads with FCO HPS's is a little bit surprising. When the *Integrated & Comprehensive Dark-sky Policy* was adopted by the City in 2008, Saskatoon Light and Power (SL&P) was a little adamant that FCO lighting would never be used on major thoroughfares, since they were concerned about the ability to light properly for visibility and safety. But with the installation along Boychuk, I guess they got the message that replacing 50-year old technology lights with modern-design lights actually does what is advertised: light is placed where it is needed without glare nor wasted side- or -up light. You can now see FCO lighting here and there throughout the city as worn out drop-lens street light heads are being regularly replaced with FCO fixtures. SL&P recently told me that they now stock only one style of standard streetlight – FCO's. Keep your eyes open for them, and drive down Boychuk. Email me with your opinion of how these lights look to you!

A problem we are just coming to the end of is that not all street lighting in the city is owned by SL&P. SaskPower owns about one-half of the lights and SaskPower did their own maintenance, replacing the lights with their own stock of old-style drop-lens fixtures. SL&P's plea to SaskPower, of complying with the *Dark-sky Policy*, had fallen on deaf ears, in disregard of the citywide policy. But all that seems to have changed this summer. I was informed by SaskPower that they have now chosen a dark-sky compliant street light, and will now offer FCOs to anyone who specifically requests them. We hope to get SL&P and the City's Environmental Services department to make that request this fall for all SaskPower retrofits.

Each month or so, I hope to bring you news about dark-sky projects in Saskatchewan – *they're everywhere!* We now have made enough success on LPA programs that many projects have become quite visible and sustainable, and that "light pollution abatement" is not longer a "*Huh???*" in the public mind.



FCO street lights on College Drive

Photo by Rick Huziak

Final 4 Messier Hunt

by Kathleen Houston, Sept. 29/11, Saskatoon

On Wednesday September 28th, I needed to have a good view of The Sea Goat...so, I went south of Pike Lake about 10 minutes, far enough to have the Dakota Dunes in the north east. I found the Gledhow cemetery on a low-use road. The clear sky clock predicted the wind would die down about 9 pm, and the trees at the cemetery were handy as a windbreak, when the wind picked up

off and on. In spite of poor skies, I had success finding my last 4: M75 west of Capricorn, then 73 and 72 above Cap, and lastly the challenging 74 in Pisces. Curiously I began the list 7 years ago with M4. I am very happy! I checked the list of completed Messier Certificates from our club, and found that I will be the 2nd woman after Sandy!

Open House at the Tuomi Observatory

by Tenho Tuomi

We announced an open house at my observatory for Friday, September 30 from 7 to 9 PM. The response from the community was overwhelming. Almost everybody came. The only two families that were not represented sent emails apologizing for not being there. 20 adults and 15 children came to enjoy the evening of observing and visiting, and snacking on



goodies by Velma and the neighbors. The weather and skies were perfect, something that one only hopes would happen when announcing something like this. The temperature was still 17C when the last visitor left at 9:30 PM.

Thank you to Garry Stone for coming to help with the observing. We had two telescopes going, 12" and 8" Newtonians. We showed all the usual things, starting with the moon and double stars until it got dark enough, to Jupiter when it arose, and ending with comet Garradd. We used my laser pointer for the first time, and there was a lot of interest in it alone.

We have tried to have an open house in the fall before, but something always prevented it, either a late harvest or poor weather. This time we were able to pull it off and we enjoyed it, and looks like others did too.

Photo by Garry Stone



Aurora on September 9 at 11:50 PM. Garry reported many nights of aurora in September, often dying and then peaking at 1 AM. He sent more pictures from September 25 to 27. However no aurora for the Tuomi Observatory Open House.

Photo by Garry Stone



The Planets This October, 2011

by Murray D. Paulson, RASC Edmonton Centre

Mercury starts out the month coming out of conjunction with the sun and subsequently moves into the evening sky. It is sitting on the far side of the sun, shines at magnitude -0.7 and has a 4.75" disc. The fall evening ecliptic is incredibly shallow and you will have no chance to observe Mercury in the twilight as it sets shortly after the sun. Mercury will be a fine daytime hunt. In early November Mercury shines at mag -0.2 and has an interesting conjunction with Venus, but more on this next month.

Venus starts off the month 14 degrees from the sun and shining at magnitude -3.9. In the eyepiece you will see a 10.2" disc. Don't bother looking for it in the twilight because it suffers from the dreaded fall ecliptic as well and sets half hour after the sun. It doesn't get any better until November where Venus and Mercury are in conjunction but their place in the night sky does not improve.

Mars arrives on the scene rising well after midnight. 1:30 am. It shines at magnitude 1.2 and will show a 5.4" disc in the eyepiece. It is making a slow return to our night sky and grows slightly over the month to 6.2" by the beginning of November. If we get some steady skies, it is worth a look even at this size.

At the beginning of October **Jupiter** will show a 48.8" disc and shines at magnitude -2.8. It will rise just before 8 pm and be at a respectable observing altitude by 11 pm. I was observing it at the Alberta Star Party and saw some dark barges on the North Equatorial Belt among other things. The GRS is a pale pink hollow and there was detail in the equatorial region. Jupiter comes to opposition on October 28th where it will shine at magnitude -2.9 and will show a 49.7" disc in the eyepiece. This is just about as big as Jupiter gets, so get out and see it at maximum.

Saturn is in conjunction with the sun on October 13th and will not be visible until November where it will rise up in our morning sky.

Uranus continues to be well placed in the evening sky and shines at magnitude 5.7. It will show you a lovely blue green 3.7" disc in the eyepiece and sits 8 degrees east of the circlet of Pisces. Check out the Handbook for a detailed finder chart. Uranus was at opposition last month and remains well placed for observing. Its north pole is tilted 14 degrees toward us at this time. Its moon Titania shines at magnitude 13.9 and will be a bit of a challenge for 10 to 12" scopes, but a worth the challenge.

Neptune shows a 2.4" blue disc and shines at magnitude 7.8. Neptune has one of the most easily found of the challenging moons. Triton shines at magnitude 13.4 and sits from 11 to 17" from Neptune. Use lots of magnification and get a chart of its position from your favorite software before the hunt. If you check back in 3 hours time, you will see it move with respect to the background stars.



The Messier, H-400 & H-400-II, FNGC, Binoc & EtU Club

Join the Club! Observe all 110 Messier, 110 Finest NGC, 400 Herschel I or II, 140 Lunar, 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

Kathleen Houston	Done!	110
Norma Jensen		108
Ron Waldron		105
Wade Selvig		75
Garry Stone		57
Barb Wright		40
Wayne Schlapkohl		36
Ellen Dickson		34
Jeff Swick		24

Chatfield BINOCULAR CERTIFICATE

Certified at 35 to 40 Objects:

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



The Messier & Finest NGC 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 – check out:

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

On-line Herschel 400 List – check out the official site at:

<http://www.astroloegue.org/al/obsclubs/herschel/hers400.html>

The Binocular List will be available at each general meeting or can be mailed out on request to distant members.

Copies of the Isabel Williamson Lunar Observing Program Guide can be purchased at meetings.

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

Observers Group

by Larry Scott



We had a glorious evening for our September 24th Observers Group. The skies were average or better with seeing improving towards 03:00. What made it glorious was it still being +16C at 03:00. Beautiful night with a light breeze to keep the mosquitoes to a minimum. Mosquitoes at the end of September? I guess I won't complain too much about that. The fair weather proved to be a lure for thirteen members and guests, a great turn out. Lots of activity, some scurrying about, and at least one case of unbridled enthusiasm. I hope everyone enjoyed their

time at Sleaford and if we can do something to improve the experience, please let me know.

Also managed to get out the following Friday, September 30th. Decent skies greeted eight members and guests on another, dare I say glorious, evening. Here's hoping the weather holds for a couple more months.

Next Observers Group is scheduled for October 29th, with Moon free evenings from October 16th till about November 1st.