

Saskatoon Skies

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

Vol. 41, No. 11

November 2010

Record Attendance at Sleaford Observatory Open House



“Have you ever seen that cowboy movie where there is a low rumbling and it gets louder then thousands of buffalo come over the hill? That's what last night reminded me of. I could see lights coming...way brighter than usual then all of a sudden there was car after car after car. The car lights in the photograph are not trails, all of those cars are standing still waiting to get parked.”

(Jeff Swick after Sleaford Observatory Open House, October 16)

Photo by Jeff Swick



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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.

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

Newsletter Editors – Tenho Tuomi & Christine Kulyk

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.

RASC CALENDAR OF EVENTS

Nov 15	RASC Executive Meeting - 6:30 pm, 175 Physics, U of S	Jeff Swick	373-3902
Nov 15	RASC General Meeting -7:30 pm, 175 Physics, U of S	Jeff Swick	373-3902
Nov 27	Saskatoon Centre Steak Night – 6:00 pm, Haywood’s Grill	Colin Chatfield	717-6682
Dec 4	Observers Group – Dusk, Sleaford Observatory	Larry Scott	934-5801
Jan 29	Observers Group – Dusk, Sleaford Observatory	Larry Scott	934-5801



RASC SASKATOON CENTRE

MONDAY, November 15, 7:30 PM

Room 175, Physics Bldg., U of S

“Are We in For Another Maunder Minimum?”

by Dr. George Sofko

Dr George Sofko is a Professor Emeritus from the Physics Department at the University of Saskatchewan. He has been interested in space weather and its connection with the weather and climate down here on Earth. George has looked at historical data on sunspots and the climate and considers the implications of the absence of the expected number of sunspots over the past couple of years on our climate.

Plus: “Under the Living Skies Olympic Video”

Saskatchewan Tourism commissioned a short video to be shown during the 2010 Winter Olympics in Vancouver. Some of the content was shot at our 2009 GA/SSSP in Cypress Hills.

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

Saskatoon Centre Steak Night

Saturday, November 27, 6:00 pm

At Haywood’s Grill

3016 Arlington Avenue

(in the Eastview Shopping Centre)



Everyone is invited to join us for fun, fellowship, and fund-raising. Bring the family! This event will feature a silent auction, door prizes, and a 50/50 draw. Steak, chicken, and veggie entrees are available, and there is lots of free parking space. **NOTE: Tickets must be reserved by November 22.** To reserve yours, contact Colin Chatfield at 717-6682 (colcha@sasktel.net).

Wanted: SSSP Organizers

The SSSP Committee requests volunteers to help with planning of the ever-popular Sask Summer Star Party. We are about to start planning for the next (hopefully rainless) SSSP and we can use your organizing talents! We meet about once a month, and more frequently closer to the party. If you would like to help out (we provide cookies!) please contact Rick Huziak at 665-3392 or rickhuziak@shaw.ca

Minutes of the Executive Meeting, Oct 18, 2010

by Ron Waldron

1. Meeting called to order at 6:33 pm.
2. Approval of minutes of the previous (Sept. 20) meeting: Moved by Jeff Swick, seconded by Rick Huziak, and carried.
3. Re. 2009 GA/SSSP (Barb Wright): Barb read a letter from National Office relinquishing us from sharing proceeds from the 2009 GA/SSSP in Cypress Hills.
4. National Rep (Rick Huziak):
 - National will attempt to lead the way regarding the use of Green Laser pointers by the general public and by amateur astronomers.
 - The motion by Christine Kulyk to reduce the Centre portion of the fee for Ordinary Members from \$33 to \$25 was discussed (carried over from the September meeting). Rick Huziak struck a committee to look at the restructuring of our Centre fees. The other members are Christine Kulyk, Norma Jensen, and Jeff Swick. They will make a recommendation regarding fees to be voted on at the November meeting.
5. Events Committee (Barb Wright for Patricia Gakis):
 - The Children's Museum Day at Market Mall is coming on Saturday, November 20. Volunteers will be needed. Jeff Swick recommended that members sign up ahead of time to participate in this outreach activity.
 - Barb thanked the members for their participation at the Sleaford Open House on October 16.
 - She also requested that we consider a "Public Events Kit" which would be a Tupperware container containing everything that would be needed for upcoming events all in one place.
- Jeff Swick spoke on the topic of a Facebook Page: He and Patricia Gakis created a Facebook page as an experiment for the Sleaford Open House. Although only two people attended as a result of the page, there were many replies from their respective contact lists to express their regrets. He and Patricia will create a Facebook page for our club. This would not replace the traditional form of advertising but would enhance it. A discussion followed about the benefits of having both a Yahoo page and a Facebook page. Concern was expressed that Facebook may unintentionally exclude members.
6. Sleaford Report (Rick Huziak):
 - Rick thanks everyone who helped with the Sleaford renovations. The renovations are now 70 percent complete.
 - Concern was expressed about the washroom light working or not working.
 - The 16-inch is still not working properly.
7. Other Business: Ron Waldron outlined a request from Fairhaven School to supply 3 or 4 telescopes for their Education Week evening activity entitled "We are all family under one sky" to be held Oct. 21 at 7:00 pm at the school.
8. Meeting adjourned at 7:28 pm.

Minutes of the General Meeting, Oct 18, 2010

by Ron Waldron

1. Meeting called to order at 7:30 pm.
2. Approval of minutes of the previous (Sept. 20) meeting: Moved by Christine Kulyk, seconded by Les Dickson, and carried.
3. Fundraising Report (Darrell Chatfield for Colin Chatfield): Haywood's Grill in the Eastview Shopping Centre was chosen as the location for our upcoming Steak Night. The date will be Saturday, November 27, at 6:00 pm.
4. National Rep (Rick Huziak): See Executive Meeting minutes.
5. Events Coordinator (Patricia Gakis): See Executive Meeting minutes.
6. Motion by Chris Martin: that the Events Coordinator be allowed to set up and administer a Facebook page for the Centre for the purposes of Outreach and Education. Seconded by Jeff Swick. Extensive discussion followed. Carried.

7. Sleaford Site Coordinator (Darrell Chatfield): See Executive Meeting minutes.
8. Light Abatement (Rick Huziak):
 - University of Saskatchewan has asked about how to control light pollution on campus.
 - City has announced a pilot project for the Evergreen neighbourhood consisting of LED lights.
 - Rick gave a talk at the Provincial Association of Resort Communities on the topic of light pollution.
 - He recommended that members take the opportunity to tour the Hampton Village area on the west side to see what a properly designed light abatement community looks like.
9. Newsletter (Tenho Tuomi): October 25 is the deadline for the next newsletter.
10. Mini-Presentation: Ron Waldron gave a 5-minute presentation entitled "In Praise of the Galileoscope." He demonstrated a working Galileoscope mounted on a video tripod. He highly recommended the combination as a first telescope for budding young astronomers, particularly elementary school children and grandchildren.
11. Elections were held for the 2010-11 Saskatoon Centre Council. (See below for list of officers.)
12. Presentation: Rick Huziak gave a report on the 2010 General Assembly and an SSSP report.
13. Meeting adjourned at 9:47 pm.

Saskatoon Centre Council for 2010-11:

President: Jeff Swick
 Vice-President: James Gorkoff
 Past President: Barb Wright
 Secretary: Ron Waldron
 Treasurer: Norma Jensen
 Newsletter Editor: Tenho Tuomi
 National Council Rep: Rick Huziak

Councillors:
 Events Coordinator: Patricia Gakis
 Fund-Raising Coordinator: Colin Chatfield
 Membership Coordinator: Mark de Jong
 Observing Coordinator: Larry Scott

Sleaford Site Coordinator: Darrell Chatfield
 SSSP Coordinator: vacant
 Councillors-at-large: Jim Young, Lorin Briand, Les Dickson

Non-Executive Coordinators:
 Librarian: Darrell Chatfield
 Centre Photographer/Archivist: George Charpentier
 Meeting Room Coordinator: Graham Hartridge
 New & Distant Members Coordinator: vacant
 Publications Sales Coordinator: James Gorkoff
 Webmaster: Gordon Sarty

SKY BUYS & MIRROR CELLS The Saskatoon Centre's Swap and Sale Page

FOR SALE: Discovery 12.5" f/5 PDHQ Split-Tube Dobsonian. Bought in 2007 and used six times. Made some modifications to stiffen the box. Nice views from an excellent mirror, but too much scope for me. Will ship at buyer's expense, or willing to deliver for gas money. Scope currently lists for \$1,699; I would like \$1,000. Contact Norma: norj@sasktel.net



President's Message

by Jeff Swick

Big Thanks to all who helped with the ongoing renovations at Sleaford! Those who haven't been to the facility in a while are in for quite a pleasant surprise.

Thanks also to all who participated in the Open House event on October 16. What enjoyable chaos, standing room to overflowing for Ron's presentation, while at the same time we all had lineups at our scopes. With estimated attendance at ~300, I don't think I've ever seen it so busy.

An added bonus to the renos for me was seeing just what was in cold storage. The amount and variety of telescopes we offer members who don't wish to cart their own gear for the night is extensive. From 8" Dobsonians to 16" computerized SCTs, it sure makes it an easy decision to just grab my eyepieces and hit the road without having to load and unload the truck.

One of my goals in this term as President is to focus on one thing we do really well, and that is outreach; but as well as reaching out to nonastronomers, it is

also reaching out to our members and getting everyone comfortable with operating Sleaford on their own and bringing out their friends and family to share in the observing.

For example, say you have family or friends coming in to town, why not bring them out for a night under the stars? Or, if you're one of our distant members coming in to town, leave your scope at home and use one of ours.

Sleaford is already a well-equipped and well-used facility, and it's only getting better. One of your benefits of membership is that once you are trained, you are welcome to use it as much as you are able. Why not get trained and take the friends and family out on your own....How cool would that be?

For that reason and many more, your local Centre charges only \$33 of the yearly membership fees, less than the cost of a night out. How's that for value?

The RASC's Strategic Plan & Other National Council Delights

by Richard Huziak, National Council Rep

"What doesn't kill you makes you stronger," so they say. Well — the five-hour National Council meeting that was held by telecon this past October 23 could have done either. But to tell you the truth, it was pretty interesting. I will give a brief summary of the highlights of the meeting and hope that members choose to get involved with some of the National RASC issues here and there; and of other lesser issues, I will bring these up with our Executive. Minutes of and Reports for this National Council Meeting (NC104) are available to all in the *Members Only* section of the RASC National Website (www.rasc.ca). If you do not know how to log in to this section or forget the password, send me an e-mail (rickhuziak@shaw.ca).

The biggest news was the release of the RASC's *Strategic Plan 2011 – 2013*. This plan was written by Executive Director Deborah Thompson after

analyzing the recent national survey, conducting a brainstorm session with the Executive Committee, and doing an environmental scan. The document outlines the RASC's (as seen from the National level) strengths, weaknesses, opportunities, and threats, then states seven objectives that will be worked on over the next few years to improve RASC operations and meet its goals. The RASC has never before had such a *Strategic Plan*. The objectives include a Centre Support Program, a Volunteer Support Program, improved response times at head office, increasing revenues, increasing membership, a marketing and communications plan, and bylaw reform. The deadline for feedback has been extended to December 31 to allow Centres and members sufficient time to comment. **Please read the Strategic Plan** and comment back to me or any other Executive member, or directly to Deborah. Several Centre reps asked if better support and interpretive materials could be

available to explain the *Plan* philosophy, so a Powerpoint presentation that could be shown at Centre meetings was promised within the next few weeks. It is also possible that an e-mail discussion group might be formed.

A close vote (14 for/12 against) narrowly passed to adopt the new *Mission Statement* for the RASC. Some members felt that the *Mission Statement* contained wording and content that had not had sufficient time to be properly vetted. However, after a long discussion and a suggestion that the *Statement* could evolve, the motion was passed.

The *Mission Statement* reads as follows:

Mission: The Royal Astronomical Society of Canada (RASC) encourages improved understanding of astronomy for all, through education, outreach, research, publication, partnership, and community. Founded in 1868, the RASC is Canada's leading astronomy organization, with 29 Centres across the country and more than 4,000 members.

Vision: To inspire curiosity in all Canadians about the Universe. To share scientific knowledge and to foster collaboration in astronomical pursuits.

Values: The RASC has a proud heritage of excellence and integrity in its programmes and partnerships. As a vital part of Canada's science community, we support discovery through the scientific method. We inspire and encourage people of all ages to learn about and enjoy astronomy.

Mandate: Dedicated to the advancement of astronomy and allied sciences.

The meeting also included 16 motions — a large number to handle, and the discussion of these motions was a major reason for the meeting going so long. The important items included the appointment of Dave Chapman as new Editor of the *Observer's Handbook* for a five-year term (replacing Patrick Kelly), the creation of a *National EPO Award*, the creation of a partnership with Girl Guides and Boy Scouts, the creation of a Youth Ambassador, and provision of funding for LPA Committee (chaired by Rob Dick) and the President's (Mary Lou Whitehorne) travel. It was also approved to reprint 100,000 copies of the popular *Star Finders* for Centre use, and a policy requiring Centres to report their outreach activities in order to obtain more reprints was voted into place.

In addition, the voting members ratified a motion to reject the International Dark Sky Association's *Model Lighting Ordinance* (MLO). It was felt by the LPA Committee that the MLO is a step backward in protection of the dark sky from light pollution and that a far better bylaw or ordinance can be adopted. Most light pollution projects in Canada already better the requirements of the MLO, and MLO adoption could have a very negative effect on how night lighting should be done.

To detail the reasoning and decisions of this Council meeting would take me several newsletters, so I will remain brief. Please remember to read and comment on the *Strategic Plan*, and attend the November 15 General Meeting to hear my full report.

Experience This: "Real Life" Hubble 3D

by Kathleen Houston

So there I was sitting in the IMAX theatre at the Science Centre in Regina (they recently upgraded with 3D technology!), enthralled by Hubble images of two colliding galaxies nicknamed The Mice. Trendy 3D specs framed my glasses, and the movie theatre became "real life" outer space. I was blown away! I watched Hubble's crew talk about their mission to upgrade the ailing telescope, like they were in the room with us. I was thinking, *I have to bring Marael to see this!* She wants to be an astronaut. The space program to fix Hubble may not be a mission to the Moon, but the floating telescope has expanded astronomically our inquiring human sight. Hubble is

our eye in the sky, outside of the fish bowl of our atmosphere. Edwin would be proud!

Everything in this movie is such a privilege to see: crews train under water, a crew member inside the space shuttle is excited like a kid about being up in space. We witness the almost complete circle of the Earth beyond the Hubble telescope, her blue, yellow, and red ochre surface graced with clouds. This is not the stuff of science fiction, this is the real McCoy. I make no Bones about it! Details draw our attention: the crew-woman's necklace is suspended around her neck, and her hair is an unearthly shape. Another crew member made a wrapped sandwich, with each

ingredient suspended in 0-gravity for our viewing pleasure. This is an experience, not just a film.

When I checked the listings for *Hubble 3D* in *SkyNews*, Regina was not on the list. Rick and I were planning a one-day visit on Sunday, October 24, to see the giant baby sculptures at the MacKenzie Art Gallery. The exhibition is entitled "Real Life," and the work showcases Australian sculptor Ron Mueck. I wondered, what else could we see? Rick suggested IMAX, and when I logged onto the Website I was ecstatic...the movie astronomers rave about was in Saskatchewan!

Yes, I am planning a return visit, partly because the scene with The Mice was way too short, but mostly to share this with Marael so she can experience her "Real

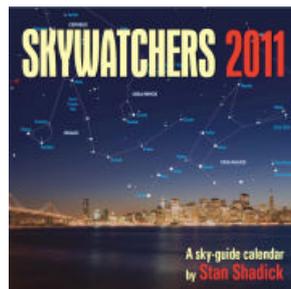
Life" *Hubble 3D* adventure. (She might pass on the giant baby art show because she thinks it's too weird). Maybe this movie will breathe life into her astronaut dream, and beyond. In *Contact*, the character S.R. Hadden living on Mir once said to Ellie Arroway on Earth, "My room has one hell of a view!" He then extended a fanciful invitation, "Want to take a ride!?"

Log on

(<http://www.sasksciencecentre.com/here/IMAX.html>) and check for screening times, make plans to carpool, and take the *Hubble 3D* adventure! *Hubble 3D* debuted in Regina October 8, 2010, and is playing until spring 2011. (I called to inquire. They have rights until September 30, but the running time depends on public interest.)

SKYWATCHERS 2011 Calendar — Final Edition Available

Stan Shadick's *SKYWATCHERS 2011* Calendar features maps of the night sky and daily commentaries about astronomical discoveries and celestial events for 2011. Inset maps illustrate conjunctions of planets and the Moon on various dates. Special times for observing Jupiter's moons are included. Now in its



15th edition, the calendar has won several international awards for the most informative and original calendar. Due to a bankruptcy of a distributor, the 2011 calendar will likely be the final edition. The RASC Saskatoon Centre should have copies for sale at the General Meeting.

Science of the Spheres, Music of the Heavens

Sunday, November 21, 3:00 pm
At Gustin House, 512 - 10 Street East

As autumn days diminish into early darkness with the change of seasons, Gustin House presents a program inspired by the Sun, Moon, and stars. The relationship between music and the heavens was a subject of consideration as far back as the 6th century BCE, when the philosopher Pythagoras wrote: "There is geometry in the humming of the strings, there is music in the spacing of the spheres."

Stan Shadick, who teaches astronomy at the Physics and Engineering Department, University of Saskatchewan, will speak on the evolving understanding of stars, planets, and nebulae. Sylvia

Shadick-Taylor, Edmonton pianist and composer, will perform music based on the experience of the ever-changing skies. The repertoire will include "Nemesis" by Paul William Pura, "Northern Lights" by Rémi Bouchard, and "Nebulae" by Allan Gordon Bell. The pianist has chosen an all-Canadian piano program in recognition of Canada Music Week (November 21-27).

Admission: \$20
Reservations required, due to limited space
Contact Walter at 373-9103
e-mail: wthiessen02@sasktel.net



The Planets This Month, November 2010

by Murray D. Paulson, RASC Edmonton Centre

Mercury was in superior conjunction with the Sun in mid-October and is making an uncharacteristically slow return to an eastern elongation. This will occur on December 1 with Mercury at 21.5 degrees elongation from the Sun. Once again, the evening ecliptic is very shallow, and Mercury compounds it by sitting just over 2 degrees below the ecliptic. Mercury will be a very hard find (with the Sun just 6 degrees lower in the sky), 7 degrees south of where the Sun sets. It will display a diameter of 7" and shine at magnitude -0.4. This will take binoculars and some persistence.

November follows close on the heels of the late-October conjunction between **Venus** and the Sun. Venus is really moving now, and will be easily visible in the dawn skies in the first week of November. It shines at magnitude -4.3 and will show you a 58" slim crescent in binoculars or a telescope. It is roughly 1/30 the diameter of the Moon! Venus brightens over the month and reaches magnitude -4.6 by the third week of the month, when it falls below 50" in size. By the first week of December, Venus will sit 41 degrees from the Sun and shine at magnitude -4.6. It now has become a fat 39" crescent.

Mars is low in the twilight glare, only 22 degrees from the Sun, and shines at magnitude 1.4. We won't see it again until next summer, due to the conditions of the spring ecliptic.

Jupiter sits below the circlet of Pisces, shining at magnitude -2.7, and dominates the south sky after dark. At the beginning of the month, it displays a 46" disc in the eyepiece. Over the month, Jupiter will noticeably shrink, and by the beginning of December, it will shine at magnitude -2.5 and subtend 42.1". There has been a lot of activity in the North Equatorial Belt, dark barges and white spots. There also are some dark barges in the North Temperate Belt that have been long-lived. The South Equatorial Belt has yet to come back, and the equatorial zone is interesting. The Small Red Spot is long-lived as well, and precedes the Great Red Spot. The gap between them is widening, and the little red

spot sits on the margin of the south polar hood. There is lots to see on Jupiter, and it's well worth the effort.

Saturn rises 4 hours before the Sun and sits just east of Gamma Virginis. It shines at magnitude 0.8, and its disk is 16" in diameter, for those of you who are up late or are early risers. The morning ecliptic is nearly vertical, so it rises quickly and will sit well off the horizon in the southeast morning sky. Compare its colour to Spica nearby. Spica is a B-type star and is very white.

Uranus is well placed for observing and will reveal itself to anyone with binoculars and the interest in finding it. It shines at magnitude 5.7 and will show a 3.6" blue-green disk in a high-power eyepiece. Jupiter lies just over 3 degrees west of it.

Neptune is still an easy hunt just east of Capricornus, and it sets 7 hours after the Sun. Lots of time to find it. At the beginning of the month, it sits only 12 minutes of arc above 5th magnitude Mu Capricorni. It shines at magnitude 7.8, and in a high-power eyepiece, will show you its 2.2" bluish disk.



The cooks at Sleaford Open House, October 16.

"A very BIG THANK YOU to all our members who came out to assist"
Photo by Jeff Swick

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. Hydromako, T. Tuomi, L. Scott, G. Charpentier, B. Johnson, M. Clancy, L. Dickson, B. Burlingham

Ken Maher	Done!	110
Norma Jensen		108
Ron Waldron		105
Kathleen Houston		90
Margo Millar		77
Wade Selvig		75
Garry Stone		57
Barb Wright		40
Wayne Schlapkohl		36
Ellen Dickson		34
Jeff Swick		24

FINEST NGC CLUB

Certified at 110 Objects:

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

Larry Scott	Done!	110
Scott Alexander		97
Sandy Ferguson		23
George Charpentier		13
Ken Maher		10
Mike Clancy		7

Chatfield BINOCULAR CERTIFICATE

Certified at 35 to 40 Objects:

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

Isabel Williamson Lunar Observing Certificate / 140

Tenho Tuomi	Up!	136
Norma Jensen		80
Jeff Swick	Up!	24

EXPLORE the UNIVERSE

Certified at 55 to 110 Objects:

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

Wayne Schlapkohl	Done	55
Sharon Dice		31

HERSCHEL 400 CLUB

Certified at 400 Objects:

D. Jeffrey, R. Huziak, D. Chatfield

Tenho Tuomi	Done!	400
Gordon Sarty		251
Scott Alexander		117
Sandy Ferguson		18

HERSCHEL 400-II CLUB

Darrell Chatfield		340
Rick Huziak	Up!	225



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.astroloague.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

Well, I couldn't be happier! Twelve, that's right, twelve members attended the Observers Group on October 2. And not only were there a dozen telescopes and binoculars in use, but the skies were agreeable as well. Transparency was average, with very good seeing at times. Highlights included comet 103P/Hartley 2 and Jupiter at some fairly ridiculous powers (780x). I hope everyone enjoyed their evening.

This was followed by two weeks of fairly nice weather, culminating with the Open House on October

16. Another great turnout, and thanks again to everyone for supper.

Next scheduled Observers Group is December 4, with moonless evenings from around November 26 till about December 10.

PS: I've fallen into a bit of a rut with the Observers Group Notes and would appreciate a volunteer writer to craft a few lines. It's always good to get another perspective.