

Saskatoon Skies

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

Vol. 40, No. 9

September 2009

Celebrating the Night Sky



Visual artists and writers who contributed to our Gallery exhibit at the Frances Morrison Library were introduced to an enthusiastic audience at the Opening Night on September 3.

Photo by George Charpentier



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: \$77.00 /year

Youth: \$41.00 /year

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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 – Barb Wright, 249-1990
Secretary – Al Hartridge, 373-0034
Vice-President – Jeff Swick, 373-3902
Treasurer – Norma Jensen, 244-7360

Bottle Drive & Canadian Tire \$

By Darrell Chatfield

If you cannot make it to a meeting but would like to contribute your Canadian Tire money please call me at 374-9278.

Newsletter Editors – Christine Kulyk & 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 clkulyk@sasktel.net – 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.rass.sk.ca/lpc/lpc.htm

RASC CALENDAR OF EVENTS

Sep 2 - Oct 1	“Celebrating the Night Sky” Exhibit – Gallery in Frances Morrison Library	Kathleen Houston	665-3392
Sep 15-20	Northern Prairie Starfest – Black Nugget Lake, AB	http://www.edmontonrasc.com/nps.html	
Sep 18	Observers Group – 7:30 pm, Sleaford Observatory	Larry Scott	934-5801
Sep 19-20	Alberta Star Party - Starland Recreation Area, AB	http://calgary.rasc.ca/asp2009.htm	
Sep 21	RASC Executive Meeting - 6:30 pm, 175 Physics, U of S	Barb Wright	249-1990
Sep 21	RASC General Meeting - 7:30 pm, 175 Physics, U of S	Barb Wright	249-1990
Oct 16	Observers Group – 7:30 pm, Sleaford Observatory	Larry Scott	934-5801
Oct 19	RASC Executive Meeting - 6:30 pm, 175 Physics, U of S	Barb Wright	249-1990
Oct 19	RASC General Meeting - 7:30 pm, 175 Physics, U of S	Barb Wright	249-1990
Nov 13	Observers Group – 7:30 pm, Sleaford Observatory	Larry Scott	934-5801
Nov 17	Leonid Meteor Shower – Sleaford Observatory	Larry Scott	934-5801

RASC SASKATOON CENTRE GENERAL MEETING

MONDAY, SEPTEMBER 21, 7:30 PM

Room 175, Physics Bldg, U of S

“Meteorite Hunting at Buzzard Coulee”
by Richard Huziak



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

Editor's Corner

by Christine Kulyk

A unique highlight of our International Year of Astronomy programs has been the “Celebrating the Night Sky” exhibit which is currently on display in the Gallery at the Frances Morrison Library (311 – 23 Street East, Saskatoon). The show, hosted by the Saskatoon Centre, runs until October 1. It includes an impressive variety of works created by our own members as well as by several other artists, writers, and students from the community at large, all of whom drew their inspiration from the night sky and their personal connections with it.

Many of the creators were present at the Opening Night reception on September 3, which was a great success, with a packed room full of people jostling for closer looks

at the artworks, poetry, and photography. Curator Kathleen Houston and her helpers did a terrific job of mounting the works for display, including the collective mural “Holes in the Sky” created by our members at a workshop last spring. Following the reception, Kathleen invited everyone to join in a drumming circle under the stars down by the riverbank.

I hope everyone will have a chance to visit this special exhibit during September, and that it will inspire many to become, or to remain, connected with the night sky and its wonders.

“Celebrating the Night Sky” curator Kathleen Houston gave a spirited welcome to the Gallery exhibit

Photo by George Charpentier



President's Message

by Barb Wright

I would like to thank all who worked so hard for GA/SSSP 2009. Over 400 people came to this event, and I know the volunteers put in some long (and wet) hours over the weekend. There were even quite a few volunteers from outside Saskatoon and Regina Centres who were very willing to help out, especially in the "Starry, Starry Night" art exhibit room — for setup, security, and takedown. Our National President Dave Lane was out in the rain flipping burgers alongside our members.

In spite of all the rain, I consider the weekend a success: the talks were very good, and there was lots of time for socializing. Those who went on the Sunday



tour had a great time at Fort Walsh and the Cypress Hills Winery and a terrific meal at the Star Café and Grill in Maple Creek.

There are only four months left in the International Year of Astronomy. I know many of our members were out at the parks across the province over the summer, showing people the sky and promoting the Saskatoon Centre. Thank you for all your work.

If you haven't already done so, be sure to visit our special exhibit, "Celebrating the Night Sky," at the Gallery in the Frances Morrison Library. It's there for the whole month of September. I hope to see everyone

at our September meeting — refreshed from summer holidays and raring to go.

Dozens of people came to "Celebrate the Night Sky" on the Opening Night of our Gallery exhibit

Photo by George Charpentier

Notes from the Meadows

by Mike Clancy

"Another fine mess you've gotten us into!" — Oliver Hardy, circa 1930

That pretty much sums up the weather for the 2009 General Assembly & Saskatchewan Summer Star Party. It was the 13th annual SSSP; it started on the 13th of August; and National RASC President Dave Lane was registrant #13! Coincidence? I think not!

Anna and I drove down towing a trailer filled with the equipment and impedimenta of the star party, arriving Thursday about noon. We set up our tent in a hurry, as we saw the swollen clouds near to bursting, and only just managed to get our camp set up before the rains came on; it would rain essentially the rest of the weekend.

On Thursday evening, the BBQ had to be moved from its usual Amphitheatre venue into the Wapiti Room due to the rain. Despite this delay, a good crew of cooks made sure the excellent Bison Burgers kept coming to feed a very hungry mob; thanks go out to Al Hartridge, Mark de Jong, Mike Clancy, Jim Young, and Dave Lane. Velma Tuomi, Anna Clancy, Barb Wright, and Marianne Hydomako deserve special mention for their efforts in setting up the serving tables; they did an awful lot of work on short notice. Later that evening, Al Dyer gave his usual outstanding public presentation, after which we would have gone off to do some observing, but alas — it was not to be! Apparently, the clouds did break for 10 or 15 minutes sometime around 03:00, but I missed it!

Friday, Anna and I rose early enough to see some blue sky peeking around the clouds, but as one fellow from Victoria said, "Not enough blue in the sky to mend a Dutchman's breeches!" There were many fine presentations during the afternoon, and the artwork displayed alongside the usual photographic excellence provided some interesting reflection.

While I'm handing out bouquets, I want to thank Kathleen for all her hard work organizing the artwork and for submitting some of her own fine work for the public to see. I was very impressed with the colours, textures, and creative abilities of all the artists, and was proud to be a part of the community assisting with this outreach.

The Friday evening Social event went well, although I thought the manner in which the resort catered the food left something to be desired! This was to be a social with mingling and conversation, whereas most folks treated it as a meal and expected seated dining. Still, I got to talk to some very interesting people and had a remarkable stroke of luck in finding some tobacco for our First Nations presenters later in the evening.

Rocky McKay and Wilfred Buck, from the Manitoba First Nations Education Resource Centre, held an audience of several hundred in thrall with their gentle humour and insights into First Nations (Cree and Ojibwa) star lore. We as amateur astronomers have gone to great lengths in this International Year of Astronomy to celebrate the 400th anniversary of Galileo's first telescopic views of the universe. This was an important event in the scientific world and led to many great and fundamental discoveries, but for SASKATOON SKIES



Rainy weather meant less observing but more socializing at this year's SSSP

Photo by Mike Clancy

millennia prior to this great leap for humanity, everyone around the world would look up and wonder. No matter who the stargazer was, be it ancient Greek or ancestral First Nations, each would use the passage of stars to describe their world. Seasons are bracketed by the presence of certain stars in the skies, and with that

knowledge our ancestors would plant their crops or move their herds, change their hunting patterns, or gather food and materials in advance of leaner wintry times. Perhaps more important, the stars and associated patterns were used to visualize the oral histories which are the fundamental learning tools of any preindustrial civilization.

It was this lesson we learned from Rocky and Wilfred, that we are all children under the same sky and that the stars have stories that hold meaning to us all. It is regrettable that the elders who remember the stories are passing each year, and in that loss all humankind loses something forever special, something that is a unique part of us all. These two gentlemen have ensured that voices will continue to sing the old songs so that future generations will look up at the night sky and, perhaps, remember. The soft, sibilant Cree language, the gentle beat of a ceremonial drum, and the songs of remembering sung for all to hear: this was the tapestry upon which Rocky and Wilfred wove a hypnotic night of crosscultural learning.

That it should end with the old hymn "Amazing Grace" sung in Cree was perhaps most fitting; that they should receive a standing ovation was most deserving.



Shuttle driver Chris Martin (right) took Montrealer Frank Tomaras and others to Lookout Point for spectacular Cypress Hills vistas

Photo courtesy of Chris Martin

Again, no observing Friday night due to the wet and cold! Saturday, the swap meet was on, and Al Dyer had a book

signing, where he had a recreation of Galileo's first scope, which we used to view the lights on the Meadows' east tower. It was like trying to look through the eye of a needle...how did he ever do it??

Anna and I then ran off to the winery to buy some of the excellent Cypress Hills Winery products as well as chat with proprietors Marty and Marie Bohnet. We got back in time to attend the afternoon programming and all those awesome door prizes Darrell Chatfield had organized. Supper was an excellent affair; pity about the weather though! Saturday evening actually had more wind, rain, and fog than the previous nights; I got back up

to the Meadows and had to spend a half-hour attempting to rescue the registration tent, which was in danger of either blowing to tatters or simply disappearing! The organizing committee had purchased a new, larger tent this year, and I must say it was a better arrangement than previous years, although it will need some repairs after that nasty wind.

Sunday, Anna and I had to drive back to Saskatoon, and it was with trepidation that I went to begin dismantling the registration tent only to find that Jim Young, and Al and Graham Hartridge had done most of the work – I just had to help load everything (now sopping wet!) into the trailer for the trip home.



The Moose room at the SSSP had a good display of art work, such as these astrophotographs by Al Hartridge. They are also on display at the Frances Morrison Library for the month of September

Photo by Tenho Tuomi

The bus tour to Fort Walsh, the Winery, and Maple Creek was another success, as the participants were given a warm welcome wherever they went and had an excellent meal at the Star Café to boot. Another welcome addition was the shuttle bus driven by Chris Martin and Murray Strankay which did yeoman service taking people to and from the Meadows as well as one "tourist run" over to Lookout Point. Given the nature of the weather and the fact that we had over 400 registrants for the event, the shuttle helped ease traffic concerns and I think made a positive contribution to the success of the entire show.

It was, after all, a success, due in no small measure to the hard work of Barb Wright, Saskatoon Centre President and Chair of the GA/SSSP planning committee. I understand that she wishes to retire from the latter position this year, and I think we should all take a moment to thank her for everything she has done for us, whether we knew it or not!

Will I be back for SSSP 2010? Most likely! One can never predict the future, but I always meet interesting and pleasant people at the star party, the sessions are of topical interest, and usually I get in some excellent observing. I've just got to learn to keep my hands in my pockets when walking by the vendor booths...see you next year!

Sleaford Summer Star Party

by Norma Jensen

The Sleaford Summer Star Party was held August 20 to 22, with stragglers' events continuing until the 25th. Star-starved RASC members spilled across the hill and area to meet and greet each other and fall into decent dark skies.

The damp and dew of the weekend did not prevent good seeing. The development of creative dew shrouds for truss tubes, the sounds of hair dryers, and SASKATOON SKIES

commentary on conditions kept us entertained. Ron Waldron's collimation challenge gave some a problem to debate and solve.

Having attended all five evenings, to me it seemed the best skies with the least humidity was Monday, August 24. Darrell, hunting Herschels, found five. We also located Stephan's Quintet and NGC 7331 with its companion galaxies.

SEPTEMBER 2009

National Rep's Report: RASC General Assembly 2009

by Les Dickson

National Council Meeting, August 13:

National Council (NC) approved a motion by the Publications and Membership & Promotion committees to offer copies of the *Observer's Handbook* and *Observer's Calendar* as door prizes at major star parties in North America, starting with the 2010 editions. A proposed alternative was to offer coupons that would give the recipient a choice of a *Calendar*, *Handbook*, or *Beginner's Observing Guide*.

NC approved a motion by the Light Pollution Abatement Committee to accept the nominations of the Mt. Carleton Provincial Park and adjacent Nepisiguit area in New Brunswick and the Grasslands Provincial Park in Saskatchewan as RASC Dark-Sky Preserves. There was discussion on a motion to revise the documents that define the Dark-Sky Preserve and Urban Star Park programs. This motion was deferred to the fall meeting.

NC approved a motion by the Nominating Committee to name Dr. James Hesser as the RASC's next Honorary President for the usual term of four years. Dr. Hesser gave the Fr. Lucian Kemble Memorial Lecture at this year's GA/SSSP.

NC approved a motion by the Observing Committee to create the RASC's David Levy Deep-Sky Gems Certificate. The list of 154 objects will be published in future editions of the *Observer's Handbook*. There will be a "traditional" certificate for those who complete the list using star-hopping or other "traditional" methods, and a "computer-aided" certificate for those who complete the list using digital setting circles or GoTo equipment.

NC approved a motion to amend By-Law #1 concerning changes in the Life Membership Program (LMP). The LMP is being wound down, and no new Life Members are being accepted. Centres will receive a one-time payment from National based on the current split between National and Centre fees for each existing Life Member. Existing Life Members will continue to remain members without having to



pay annual membership dues to National. Life Members attached to a Centre may have to pay an annual fee to the Centre if the Centre so requires.

NC noted the recent untimely passing of Leo Enright, a long-time member of the Kingston Centre and Editor of the *Beginner's Observing Guide*. Flowers were sent to Leo's family, and there was an RASC presence at his funeral.

Annual General Meeting, August 16: The AGM ratified by Special Resolution the motion passed by NC regarding the LMP (see above). Ratification of this motion was necessary for any monies to be transferred to the Centres as a consequence of the closing of the LMP.

The AGM approved a motion to reappoint Tinkham and Associates as the Auditor of the RASC. There was some discussion on the reappointment, as there was some concern that Tinkham had not made the RASC aware of the changes in the Canada Revenue Act concerning charities that have plagued the Society for the last two years.

National Council Meeting, August 16: The main business of the second NC meeting was to reconstitute committees for the following years. The Executive Committee comprises: President, David Lane; First Vice-President, Mary Lou Whitehorse; Second Vice-President, Glenn Hawley; Treasurer, Mayer Tchelobon; Secretary/Recorder, James Edgar. The Executive Secretary is Jo Taylor. Dr. James Hesser is the Honorary President.

Other Committees and their Chairs are: Awards, Peter Jedicke; Constitution, Denis Grey; Education, Kim Hay; Finance, Mayer Tchelobon; History, Barry Matthews; Membership & Promotion, Randall Rosenfeld; Nominating, Glenn Hawley; Observing, Paul Gray; Property, Mayer Tchelobon; Publications, Mary Lou Whitehorse; Information Technology, Ryan May; Light Pollution Abatement, Mark Coady.

IYA and Douglas Provincial Park

by Mike Clancy

As part of the International Year of Astronomy and to repay the kindness shown to me by the park over the many years of fieldwork we've done in the area, Anna and I offered to give the "Stories and Stars" presentation at Douglas Provincial Park on the evening of August 20. Tenho and Velma Tuomi also came along and were a very big help, particularly with his collection of Buzzard Coulee meteorites.

We actually had a small group of children from nearby campsites come over to check out the four telescopes we had set up well before our talk. I'd brought my 90mm Maksutov travel scope and one of the club's 8" Dobsonians, while Tenho had brought his 80mm refractor and his 8" Newtonian with its heavy-duty tracking mount. I had also brought a small collection of downloaded planispheres, August star charts, and *Mary Lou's First Telescope* books. By 20:30, 60 people had gathered to hear Tenho and me talk, with another 10 or 12 people arriving a bit later.

Tenho got things started with his meteorites, which were a big hit, particularly with the children, after which I talked about the International Year of Astronomy. I then handed out the free materials and gave renditions of "The Cremation of Sam McGee" and "Swamp Witch Hatty," after which Tenho got the observing started with his telescope trained on Jupiter. The evening twilight broke slowly, and by 21:00 or so I was using my green laser to show folks how to find the North Star as well as getting them to find the Double Cluster with their own binoculars. The focus of the evening was to have people use their own instruments to observe various objects, and I think it was a success from that standpoint.

From Jupiter to the Pleiades to the Andromeda Galaxy, a description of the Summer Triangle and how to locate the Coathanger Cluster, and down the Milky Way to Sagittarius with several key Messier objects like the Jewel Box and the Lagoon Nebula. We also showed them the Hercules globular cluster and



Mike Clancy and Tenho Tuomi gave campers at Douglas park an introduction to observing

Photo by Mike Clancy

the Mirfak starfield and had them watch Capella's changing colours.

By the time we'd finished, Tenho and I had pretty much shown an example of every type of object one can observe. As Tenho put it, "We've pretty much named the zoo!" The skies cooperated marvellously, with the Milky Way so bright it cast shadows, something that amazed more than a few, and so clear we had naked-eye views of the

Perseus Double Cluster, the Andromeda Galaxy, and several of the Sagittarius Messier objects. There were two Iridium satellites and several meteors (one of which left quite a smoke trail in its wake) and a very satisfied group of new astronomers in that little field. It was as good an evening's observing as I've ever had in a provincial park!

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The Planets This Month, September 2009

by Murray D. Paulson, RASC Edmonton Centre

The month starts off with **Mercury** returning from its late-August greatest eastern elongation, an evening apparition, as it heads for inferior conjunction with the Sun on September 20. On that date, Mercury will pass between Earth and the Sun, passing only 2.7 degrees below the Sun. The evening ecliptic is very poor for observing inner planets after sunset, so you may wish to try finding it in the daytime with a GoTo scope. Mercury wastes no time before it pops out into the morning sky. On the 30th, it will shine at magnitude 0.6 and rise a little over an hour before the Sun. Greatest western elongation will be on October 5, when Mercury will sit 18 degrees from the Sun, shine at magnitude -0.4, and exhibit a 7.0" disk.

You may have noticed **Venus** sitting high in the morning sky. It has been making a slow return to the Sun since early June. At the beginning of the month, Venus shines at magnitude -3.9 and shows a 12.3" gibbous disk in the eyepiece. It is located 31 degrees from the Sun. Over the month, Venus moves close to the Sun, and by early October, it sits 24 degrees away. It will not change in brightness, but will shrink slightly to 11", and the gibbous phase will fill out a bit. The morning ecliptic is generous, and Venus will sit with us over a good portion of the fall.

Mars has been slowly creeping back into our sky, and if you looked at it at the summer star parties, you would have seen a polar cap and possibly some details. It is still a morning object, and will stay this way till December. At the beginning of September, Mars shows a 5.9" gibbous disk which will grow perceptibly over the month. By early October, we see Mars shine at magnitude 0.7, and it will now show a 6.8" disk in the eyepiece. The 6" size is where serious Mars observers start paying attention to Mars.

Jupiter came to opposition in August and has been putting on quite a show. We have had a lot of satellite mutual events — occultations and eclipses — as well as the regular Jovian satellite events. Check the *Handbook* pp 243-244 for a detailed listing. Mutual satellite events are only visible twice over the Jovian

orbital cycle, and the next such sequence of events is 6 years hence. Treat yourself and observe at least one eclipse event. They are quite fun. The month starts off with Jupiter shining at magnitude -2.8, and it shows a 48" disk in the eyepiece. By the first week of October, it will shrink to 45" and dim to magnitude -2.6.

Saturn is in conjunction with the Sun on September 17 and so won't be visible for the next few months.

Uranus comes to opposition on exactly the same date as Saturn is in conjunction with the Sun, September 17. At this time, it will shine at magnitude 5.7 and show a 3.7" greenish disk in the eyepiece. At the fall star parties, try to see if you can find some of its moons. The chart is produced by Guide and shows the moons' locations at 11:30 pm local time on September 18. Titania is located 20" from Uranus, and Oberon is at 11". Use lots of magnification.

Moon	max dist arc sec	Magnitude
Oberon	44	14.1
Titania	33	13.9
Umbriel	20	15
Ariel	14	14.3

Neptune was at opposition back in August and sits close to Jupiter in the evening sky. At mid-month, it will shine at magnitude 7.8 and show a 2.3" blue-green disk in the eyepiece. On the night of the 18th, Neptune will sit just over 1 degree east of 42, 44, and 45 Capricorni. This grouping is just above the easternmost star, Delta Capricorni. Check out the *Handbook* for finder charts. On the night of September 18, its moon Triton will sit 14" due west (preceding the planet).



Jupiter and its moons have been putting on a good show

Photo by Murray Paulson

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, 135 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

Ken Maher	Done!	110
Norma Jensen		108
Ron Waldron		105
Kathleen Houston		89
Margo Millar		77
Wade Selvig		75
Garry Stone		57
Ellen Dickson		32
Jeff Swick		24
Barb Wright		23
Bruce Brandell		5

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

Norma Jensen	50
Jeff Swick	New!

EXPLORE the UNIVERSE

Certified for Certificate:

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

Sharon Dice	23
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HERSCHEL 400 CLUB

Certified at 400 Objects:

D. Jeffrey, R. Huziak, D. Chatfield

Tenho Tuomi	398
Gordon Sarty	251
Scott Alexander	117
Sandy Ferguson	18

HERSCHEL 400-II CLUB

Darrell Chatfield	315
Rick Huziak	211

The Messier & Finest NGC lists can be found in the *Observer's Handbook*.

The Explore the Universe list is available on the National website.

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

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>

Copies of the Isabel Williamson Lunar Observing Program Guide can be purchased from Bruce Brandell.
Program details can be found at: <http://www.rasc.ca/williamson/index.shtml>

Observers Group Notes

by Larry Scott

After the long days and short nights of summer, it appears our desire for observing has come to the fore again. From the July 24 Observers Group till August 25, we had 44 members and guests using the facilities at Sleaford. Maybe there's something to this Year of Astronomy! There was a bit of a rebound from frustrated SSSP attenders. Sleaford was in use at least seven consecutive nights after SSSP starting August 19. We peaked with 10 visitors for the August Observers Group. I hope everyone enjoyed their time under the stars.

The September Observers Group is scheduled for the 18th, with moonless evenings from September 12 to 26.

SKY BUYS & MIRROR CELLS

The Saskatoon Centre's Swap and Sale Page

5" Astroscan telescope. Red exterior. Good condition.

8" Celestron Celestar Deluxe S/C telescope. Includes many extras and upgraded items, such as finder, W/O diagonal, Feathertouch focuser, Telrad, Bob's Knobs, Dry Eye dew heater system, padded main scope case, and tripod bag. This scope has great optics, as attested to by a former Celestron employee at a previous SSSP. This scope has seen me through 3 certificates, and will track for hours on end. If you want a great scope, then please consider this one. Over \$3,300 invested. Asking \$1,700. Will consider offers. Please contact Darrell (306-374-9278; novachat@sasktel.net).