

Saskatoon Skies

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

Vol. 42, No. 5

May 2011

Grasslands Dark Sky Preserve Star-Party Time



This is a picture from the First Grasslands Dark Sky Preserve Star Party that was held last year on July 16 at the West Block, at Two Trees south of Val Marie, attended by 75 people. This year there will be an opportunity to attend two Grasslands DSP Star Parties, the first one on May 28 at the East Block, and the second one on July 30 at the West Block. For more details see the March Saskatoon Skies newsletter.

Photo by Kathleen Houston



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

May 16	RASC Executive Meeting - 6:30 pm, 175 Physics, U of S	Jeff Swick	373-3902
May 16	RASC General Meeting - 7:30 pm, 175 Physics, U of S	Jeff Swick	373-3902
May 27	Observers Group – Dusk, Sleaford Observatory	Larry Scott	934-5801
May 28	Grasslands National Park DSP - East Block Star Party	Rick Huziak	665-3392
June 4	Observers Group – Dusk, Sleaford Observatory	Larry Scott	934-5801
June 20	RASC Executive Meeting - 6:30 pm, 175 Physics, U of S	Jeff Swick	373-3902
June 20	RASC General Meeting - 7:30 pm, 175 Physics, U of S	Jeff Swick	373-3902
June 25	Tour of Tenho's and Garry's Observatories	Tenho Tuomi	858-2453
July 1-4	RASC General Assembly – Winnipeg	http://winnipeg.rasc.ca/ga-2011-home	
July 8	Observers Group – Dusk, Sleaford Observatory	Larry Scott	934-5801
July 30	Grasslands National Park DSP - West Block Star Party	Rick Huziak	665-3392
July 30	Calgary RASC Star-B-Q – Caroline, AB	http://calgary.rasc.ca/starbq.htm	
Aug 25	Saskatchewan Summer Star Party	Rick Huziak	665-3392
Aug 25	Spruce Woods Star Party – Spruce Woods Park, MB	http://winnipeg.rasc.ca/home/35-announcements/158-spruce-woods-star-party-2011	
Sep 19	RASC Executive Meeting - 6:30 pm, 175 Physics, U of S	Jeff Swick	373-3902
Sep 19	RASC General Meeting - 7:30 pm, 175 Physics, U of S	Jeff Swick	373-3902
Sep 24	Alberta Star Party - Starland Recreation Area, AB	http://calgary.rasc.ca/asp.htm	
Sep 27	Northern Prairie Starfest – Black Nugget Lake, AB	http://edmontonrasc.com/public/nps.html	

RASC SASKATOON CENTRE

MONDAY, May 16, 7:30 PM

Room 175, Physics Bldg., U of S

“The Photography and Sketching Contest, and Sketching Workshop for SSSP 2011”

“Kathleen's Spring Art and Astronomy Tour of Southern Alberta.”



by Kathleen Houston

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



The Meadows, Saskatchewan Summer Star Party 2010, after the rain.

Photo by Tenho Tuomi

Under South African Skies

by Ron Waldron

Let me begin by saying that I will turn 59 years of age this year and am just beginning to think about my “bucket list”. One of the items on my list was to see the stars and constellations in the southern hemisphere, particularly the Southern Cross, the eta carina nebula, omega centauri star cluster, and the clouds of Magellan. When our youngest daughter married a young man from South Africa, the opportunity to visit that country and check these items off my bucket list presented itself.

We left in the middle of February and arrived in Johannesburg, (latitude -25 degrees) the capital city 22 hours later. We were welcomed by our in-laws and were informed that the very next morning we would be travelling by car to a small isolated town called Sutherland which is located two days drive away and is the site of SALT, the Southern African Large Telescope, also known as SALT.

Armed with my 80mm refractor telescope and tripod, we left at 6 AM, travelled for 14 hours and spent the first night in Mikesfontein, a cute little town (really just a whistle-stop for the railroad between Johannesburg and Cape Town). Although it was a full moon that night, it was clear so I could not resist my first look at the southern skies. My first observation was the upside down full moon – showing not the face which I am used to but rather the rabbit which I had

never been able to see from home. Next to present itself was the Southern Cross, and its somewhat confusing counterpart further up in the sky, the false cross. As I gazed toward the zenith, Orion was there but clearly he was upside down! And the big dipper?? Only two stars in the handle cleared the northern horizon. I was definitely in a foreign land and observing familiar and new stars in foreign and unfamiliar locations.

As jet lag was really setting in, I reluctantly called it a night and went to bed, looking forward to our trip to Sutherland and SALT the next day. As we drove up a somewhat winding road and gentle incline, the dome of the observatory loomed into view in the distance. After gassing up and obtaining final directions in the town of Sutherland, we headed for the observatory. I had pre-arranged a tour that afternoon and we were joined by approximately 10 others who had made the same trip that day.

The first view of the largest telescope in the world is one of awe and wonder. Awe at the sheer size of the scope and wonder as to what the views must be like. The telescope itself has a primary mirror composed of 91 interchangeable hexagonal mirror segments. Collectively they give the total spherical mirror surface a diameter of 11 metres across. Three actuators on each of the 91 mirror mounts are used to

position the individual mirror segments accurately. While we were there, a half-dozen of the metre wide mirror segments had been removed for cleaning. I took both movie and still photos of our visit which I will be showing at some meeting.

From here it was on to Capetown for two days, a return to Johannesburg to prepare for a four day safari to Ingwelala (land of the leopard). Remember I had still not really gotten to use my telescope on any deep sky objects due to the full moon so I was hoping that one of the three nights there would be clear. Ingwelala is really remote and is located at the extreme





opposite end of the country from Capetown. Although I needed only one clear night, I got three (and no moon). First I viewed the southern Milky Way, with its multitude of bright and dark nebula. I had no trouble finding the eta carina nebulosity. It is much larger than M42 (although not as bright) completely filling my field of view in the small telescope. Adding a deep sky filter brought out its fainter filamentary structure as I gazed in amazement at the sheer size and breadth of the nebulosity. From here, it was on to Omega Centauri, the largest globular cluster in the night sky. It really does outperform M13 with a bright

centre but granular detail all the way across. Finally, it was dark enough to see the SMC and the LMC. They really could be mistaken for “clouds” as no detail becomes apparent except in the telescope. Even my binoculars could not resolve the stars.

Two more gorgeous sunsets and clear nights rounded out our visit and it was back to Johannesburg to continue sightseeing and to complete the visit with our in-laws and their friends. We found the South African culture to be amazing as we visited the Mandela museum and Lesedi (a cross-cultural museum). My wife even had time to visit the casino and I had the chance to pick up a Chinese meteorite.

Boarding the plane for the departure home, we said goodbye to our hosts and farewell to a wonderful country. Rich with history and internal struggles for freedom, South Africa is a diversity of cultures and languages. For us it was a chance to visit with family and friends and for me, the opportunity to see the wonders of the skies in the Southern Hemisphere.

Photos by Ron Waldron

The New Activities Web Page

By Rick Huziak <rickhuziak@shaw.ca>

I'd like to direct members to our new *RASC Saskatoon Centre, Public & Media Events* web page, found at <http://homepage.usask.ca/~ges125/rasc/activities.html> (on our Centre website). This page was created to provide more timely announcements of our Centre and local astronomy events than the newsletter alone can provide, since the newsletter only comes out monthly and has limited space. The newsletter is also harder to Google-search by others since the text is embedded in the pdf file. So non-members (potential members and media personnel) just scouting around won't accidentally run into our events, and we obviously

want them to! Bookmark this page, and keep current of what the Centre is doing! The activities page is a work-in-progress. As time goes on, it will become fancier and more useful. It is currently updated weekly (by me), and more often if a change in events warrants the update. The page shows all of our known events going out as far as we know - all the way until August 2013, since we schedule SSSP that far ahead. The page will also announce non-Centre events that may be of interest to members. If you have any comments or content changes, just email them to me and I will get them up quickly.

Highlights of the National Council Meeting NC111

March 26, 2011 8:00 am – 2:30 pm CST

by Richard Huziak, National Rep., Saskatoon

Here are the highlights of the NC111 meeting. All 33 council and committee reports and minutes are accessible on the National website in the *Member's Only* area under *National Council Reports* if more details are desired, and for the more minor points of the meeting not reported in this article. (If you can't remember the password, send me an email). I should note that even though this is a National Council meeting, the decisions and topics of discussion certainly affect and provide opportunity for our Centre! I will be happy to discuss details further by email or at Centre meetings.

The RASC has received a \$25,000 business assistance grant from the Government of Canada to refresh and promote the *Journal*. Dr. Jim Hesser, Honorary President, suggests that the *JRASC* visibility could be increased (and thus interest and content) by making it subscribable to CASCA members and elsewhere, beyond it being just a member benefit.

The new *Canada Not For Profit Corporations Act (CNCA)* (spring 2011) will affect how the National RASC operates and it is uncertain how it will affect the Centres, though incorporated and registered charitable Centres will be somehow affected. National will inform each Centres of the new rules since the *National Articles of Incorporation* will have to change. It may be possible to template the changes for use by each Centre.

Dave Chapman has been appointed the new editor of the *Observer's Handbook* effective March 26, now that Patrick Kelly has ended his term.

The motion to increase membership by \$3 was withdrawn because, after final accounting, the RASC is breaking even at currently funded rates.

The *RASC Strategic Plan 2011 – 2013* and *Marketing and Communications Plan* were accepted by Council after inclusion of comments by several members and Centres, especially with respect to the *Mission Statement and Vision*. There was also quite a lengthy discussion of whether or not the goal on increasing membership to 5000 is necessary, in that a good recruitment and retention program should accomplish the same, but in the end, the *Plans* were accepted

without change. The plan focuses on 6 Strategies that are designed to focus and reform the RASC:

- Implement Centre Support Program by June 1, 2011
- Implement Volunteer Support Program by June 1, 2011
- Increase revenues from present and new sources by 30% by Dec. 31, 2013
- Increase RASC membership to 5000 by Dec 31, 2013 (current is 4201) through improved customer service, recruitment and retention
- Executive Director and MAP Committee will develop Marketing and Communications plan by Dec. 2010 (completed)
- Make recommendations on By Law reform by Dec. 31, 2011.

To help attract membership with the RASC, some added benefits have been negotiated, including reduced costs for Budget Rent-a-Car and Delta Hotels.

Meetings between the Green Laser Pointer (GLP) Committee and Transport Canada (TC) have resulted in clarification of "rules" of use of green laser pointers (GLPs). TC does not consider the responsible use of GLPs by amateur astronomers a violation of the TC Guidelines. They understand our need to use the GLPs as an educational tool. TC is more concerned with abusers. It is not necessary for individual users to register. If large events might use a lot of lasers, then TC proposes that a call to the local office as a courtesy might be warranted. (TC might be informed of recurring use at sites like the Sleaford Observatory, Beaver Creek and other common sites we might use). The RASC recommends use of GLPs no stronger than 5mW. TC will attend the Winnipeg GA with a presentation on their point-of-view, and are looking at a revision of their GLP brochure (with RASC help) based on new understanding of astronomy use.

The new *Qilak Award for Astronomy Outreach and Communication (Prix Qilak pour la communication en astronomie)* national award has been created to recognize excellence in EPO. One award will be given per year and anyone in the RASC can be nominated. Jay Anderson (Winnipeg) has been awarded for the Simon Newcomb Award for his work on the *NASA Eclipse Bulletins* (with F. Espanak). Rob

Dick (Ottawa) has been awarded the National Service Award for his work in light pollution abatement and the dark-sky preserve program. Presentations will happen at the Winnipeg GA.

Council voted to approve Jasper National Park as a Dark-Sky Preserve. At 1.1 million hectares, it is larger than all of the world's DSPs combined, so now takes the *World's Largest DSP* title, taking over from Grasslands DSP. In actual fact, Peter Kent, Minister of Environment, spilled the beans about this on March 11 in the newspapers. An article on DSPs should

Useful websites: RASC Members Only web-page: <http://www.rasc.ca/members.shtml>
Winnipeg GA: <http://winnipeg.rasc.ca/ga-2011-schedule>
Jasper Dark-Sky Preserve: <http://jasperdarksky.org/>
GLP Position Statement: http://www.rasc.ca/news/article_500.shtml

President's Message

by Jeff Swick

Wow....May already, it's been a busy year and with the nicer weather will only be busier. The SSSP committee has accomplished a lot and I encourage you to check out the web page for the latest updates. Especially for the update on changes to the Meadows campground.

For those doing outreach events, please see me for materials and remember to pass along your events so we can enter the numbers with National as this is what determines what we get from them in the way of replenishment of materials.

By way of upcoming activities, we have the tour of Tenho and Gary's observing facilities. This will be a day trip with a minor charge to cover costs. More details will be available in the next issue.



appear in the next issue of *Canadian Geographic* magazine.

Everyone is invited to the 2011 General Assembly in Winnipeg from June 30 to July 4. Their event details are online and open for registration. The 2012 GA will be held in Edmonton.

Council voted to provide between \$500 to \$1000 travel funding for 11-year old Kathryn Gray (Fredericton Centre), discoverer of supernova SN2010lt, to attend a conference in the Canary Islands as an invited speaker.

Useful websites: RASC Members Only web-page: <http://www.rasc.ca/members.shtml>
Winnipeg GA: <http://winnipeg.rasc.ca/ga-2011-schedule>
Jasper Dark-Sky Preserve: <http://jasperdarksky.org/>
GLP Position Statement: http://www.rasc.ca/news/article_500.shtml

The May general meeting will feature Ron Waldron's trip report of his visit to South Africa and in June we have our final SSSP update as it is the last meeting of our season it will be of great interest to those attending. We will also have a special visit from Chris Beckett of the Regina Center.

Thanks to Gord Sarty for his presentation in March and also for bringing his collaborator Dr Kinwah Wu for the April meeting. It was nice to have a little bit of Astrophysical Exotica from the people who are on the front lines. Gord has been working another collaboration that he alluded to in March but couldn't say much about it at the time. It's now been published and it received extensive coverage from the CBC, BBC and Universe Today to mention only a few places I saw it. Here's a link to the CBC story on the discovery <http://tinyurl.com/6dkbeoa>

Thanks also to all the volunteers who have put forth over the year to make it what it was and continues to be. As the newsletter deadline doesn't allow for me to report on the Astronomy Day festivities (I'm writing this a week prior) a report will come in the June newsletter.

Gord and Kinwah

Photo by Jeff Swick

Sask Summer Star Party 2011 Opens

Rick Huziak, 2011 SSSP Registrar

Hear ye! Hear ye!

Time to organize your summer's end and plan to attend the Saskatchewan Summer Star Party! SSSP 2011 has now opened registration! The star party is held on the new moon weekend of August 25 - 28! Do you need a better reason than observing in the 7+ magnitude naked eye sky from the Cypress Hills Dark Sky Preserve?

Our Fr. Lucian Kemble Keynote speaker is Debra Ceravolo (VP, Ceravolo Optical Systems). Her talk "Image Processing and Food – Getting Back to Nature" is sure to please. I got to preview a short version of this talk at the Fredericton GA'10 and was very impressed! Other speakers are Peter Ceravolo – "Comet Hyakutake: A look back at the making of an astronomical motion picture" and Dr. Aaron Price (AAVSO) - "100 Years of Citizen Astronomy through Variable Stars". Our under-the-stars clinicians are Jack Milliken (Calgary Centre) - "Sketching Deep Sky Objects at the Eyepiece" and Chris Beckett (RASC National Observing Coordinator) – "The Coolest Ever Binocular Star-walk"

All of our popular activities are back - solar observing, swap table, welcome BBQ, photo contest, on-site astro-vendors, astro-art display, 10-year awards, door prizes, moose and much more! Come have a blast!

The new Cypress Hills Observatory in the Dark-Sky Campground will also be dedicated on August 25th. We are proud of the progress that the Friends of Cypress Hills Park have made in making this new interpretive facility a reality. FOCHP will also run the Welcome BBQ this year!

The star party is held at the Cypress Hills Inter-provincial Park, 20 km south of Maple Creek, Saskatchewan. Everyone is welcome; we cater to the entire family, from seasoned observers to ripe newbies and we don't forget about the spouse and kids! And the best news: Sask Parks has dropped the out-of-province camper levy and SSSP registration fees are the SAME as the 2008 prices!

Pick up our brochure at the next club meeting! Register early, and decide NOW if you are coming. Please take a moment to read our web page regarding construction in the Meadows if you are camping –

available power might be limited. If you are tenting, no sweat – there is room for hundreds of tents. There are also resort rooms, condos and cabins still available. And if you run out of luck on a room, email me, and I will put you on our waiting list. In the past, we've usually found a way to fit everyone in.

Registration forms are also up on the website. 85% of our attendees come back year after year. Join your 275 closest friends at SSSP'11!

Everyone welcome!

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SkyWatcher Equinox 120 HEQ6 SynScan GPS Regular \$3449.95 Special \$2999.95

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1.866.310.8844 - www.All-StarTelescope.com - Didsbury, Alberta

SSSP'11 Home Page: <http://homepage.usask.ca/~ges125/rasc/starparty.html>

SSSP'11 Details: <http://homepage.usask.ca/~ges125/rasc/sssp2011.html>



The Planets This Month, May 2011

by Murray D. Paulson, RASC Edmonton Centre



The Month of May starts off with a morning greatest elongation of **Mercury** on May 7th. As I mentioned in last month's column, morning elongations are very difficult to observe due to the poor inclination of the ecliptic in the morning sky. This event will only be visible with the aid of a telescope with setting circles or a computer in the daytime sky. If you go for it, do have a look at **Venus** which sits only a few degrees away. On May 7th, it will be an 8" "half moon" and shines at magnitude 0.3. Nearby Venus will shine at magnitude -3.8 and will show a fat gibbous 11.3" disc. Over the rest of the month, Mercury will accelerate away from Venus and head back towards the sun. It will meet up with the sun in a Superior conjunction on June 12th. Meanwhile Venus will move at a much more stately pace on its way back to the sun. In the first week of May, Venus is at a 26.2 degree elongation from the sun, shines at magnitude -3.8 and exhibits a 11.3" gibbous disc. By the first week of June, Venus will have moved to an elongation of 18.6 degrees, still shines at magnitude -3.8 and shows a 10.4" gibbous disc. If we were located in the southern hemisphere we would be treated to a series of close conjunctions between Venus – Jupiter and Mars plus Mercury - Jupiter and Mars as well as the Venus

Mercury conjunctions. It is just about enough reason to go for the ticket south!

For the preceding reasons, we will not see **Mars** or **Jupiter** over the near future, so we must turn our gaze farther out to Saturn and Pluto to whet our appetite for planets. Now the summer twilight will eliminate Pluto as a target for observation until late July, or on the occasion of a trip south for better observing conditions.



Saturn starts off the month at magnitude 0.5 and exhibits a 18.9" disc in the eyepiece. The rings are now tipped down at 7.6 degrees. Did you catch Iapetus just above Saturn early last month? It was a nice view, and the accompanying image was collected on that night. I examined the image carefully and realized that the north temperate belt disturbance is still visible. Not to my eye in the scope, but it is subtly there in the image. Back to Iapetus: You will get a chance in the next weeks to see Iapetus directly below, (south of), Saturn on May 20 - 21. It will shine at magnitude 11.0. I missed out on Hyperion last month, but I have another half month before the twilight makes it a problem. Good luck on it. Till next month, clear skies!



A little of everything, the Summer Triangle and Cassiopeia, the Milky Way stretched across the northern sky in Spring, some aurora, and even a Lyrid meteor on the bottom left, and of course the city glow.

Photo by Bob Johnson

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

Norma Jensen	108	
Kathleen Houston	Up!	106
Ron Waldron	105	
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
Norma Jensen	New!	36
Sandy Ferguson		23
George Charpentier		13
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	Done	140
Norma Jensen	Up!	122
Jeff Swick		25

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



Personal commitments kept me from attending the April 30th meeting at Sleaford, but our stalwart Norma stepped in on my behalf. Thank you, Norma.

Our next run of moonless evenings go from (about) May 21st till June 6th. Next Observers Group is for May 27th. I've scheduled the June 4 meeting to follow on the next Saturday.

We now enter our season of short nights, lawn mowing, and bug spray. Hope to see you all out there.

Crater Ptolemaeus

Photo April 10 by Garry Stone