

Saskatoon Skies

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

Vol. 40, No. 4

April 2009

Earth Hour at the Mall



When The Centre mall announced it would be shutting off its parking-lot lights for Earth Hour on March 28, several Saskatoon Centre members decided this would be a great opportunity for some sidewalk astronomy. The public response was fantastic! (See more on page 6.)

Photo by Bob Johnson



Saskatoon Centre
The Royal Astronomical Society of Canada
P.O. Box 317, RPO University
Saskatoon, SK S7N 4J8
WEBSITE:
<http://www.rasc.ca/saskatoon>
E -MAIL: wrightb@sasktel.net
TELEPHONE: (306) 249-1990

In This Issue:

Membership Information: Bottle Drive: Officers of the Centre	2
U of S Observatory Hours: Light Pollution Abatement Website	2
Calendar of Events: Minutes of the Executive and General Meetings	3
Meeting Announcement – Potluck Social & Astronomy Art Activity	4
Books for Sale – Bruce Brandell	4
Editor's Corner – Christine Kulyk	4
President's Message – Barb Wright	5
Gallery Exhibition: Celebrating the Night Sky – Kathleen Houston	5
The Hazards of Astro Flashlights – Murray Paulson	5
Saskatoon Astronomy Week Part One	6
Friendly Astronomy at Hidden Ridge Star-be-Que – Mike Clancy	7
IAU Designates Gaseous Planets as Brown Dwarfs – Murray Paulson	7
Sky Buys & Mirror Cells	8
The Planets this Month – Murray Paulson	9
The Messier, H-400 & H-400-II, FNGC, Bino, Lunar & EtU Club	10
Observers Group Notes – Larry Scott	10

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

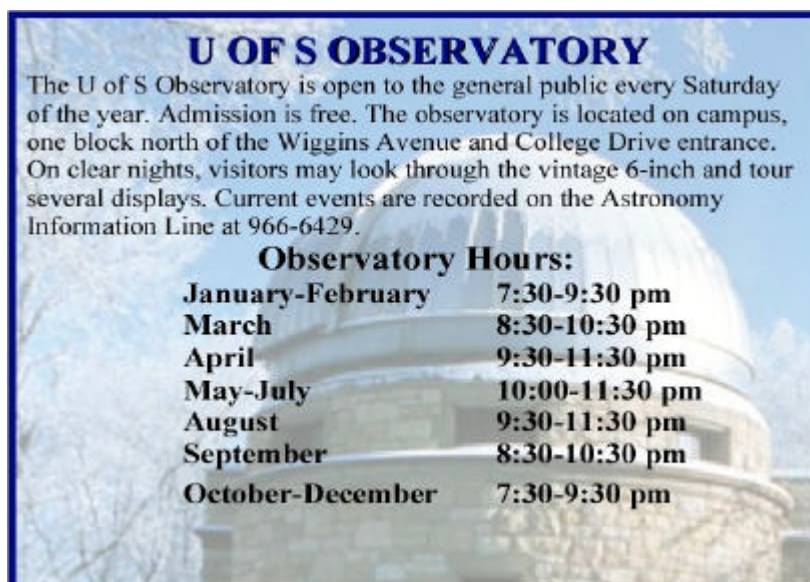
Associate: \$33 /year

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 – 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.



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

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.

RASC CALENDAR OF EVENTS

Apr 17	Observers Group – 8:00 pm, Sleaford Observatory	Larry Scott	934-5801
Apr 17-18	Astronomy at Anglin Lake	Barb Wright	249-1990
Apr 20	Potluck Supper & Astronomy Art Activity – 6:30 pm, 175 Physics, U of S	Barb Wright	249-1990
May 11	RASC Executive Meeting – 6:30 pm, 175 Physics, U of S	Barb Wright	249-1990
May 11	RASC General Meeting – 7:30 pm, 175 Physics, U of S	Barb Wright	249-1990
May 15	Observers Group – 9:00 pm, Sleaford Observatory	Larry Scott	934-5801
June 15	RASC Executive Meeting – 6:30 pm, 175 Physics, U of S	Barb Wright	249-1990
June 15	RASC General Meeting – 7:30 pm, 175 Physics, U of S	Barb Wright	249-1990
June 26	Observers Group – 9:30 pm, Sleaford Observatory	Larry Scott	934-5801
Aug 13-16	RASC General assembly & SSSP – Cypress Hills	Barb Wright	249-1990

Minutes of the Executive Meeting March 16, 2009 *by Al Hartridge*

1. Meeting called to order at 6:30 pm.
2. Approval of the minutes of the previous meeting: Moved by Tenho Tuomi, seconded by Ellen Dickson, and carried.
3. National Rep (Les Dickson): Life Memberships are still being discussed at the national level. They require Centre ideas; one proposal has been to shut down this category of membership and divide up funds between national and centres. Current Life Members will be maintained by national. The current issue of the *Journal* has an article describing arrangements made so far by our Centre for the upcoming GA.
4. Sleaford: Ron Waldron made a motion to purchase a larger snowblower for Sleaford. This will cost no more than \$1,200 and will be purchased in the off season. Seconded by Jeff Swick and carried. This will still have to be ratified at the general meeting.
5. IYA Activities: Centres are ordering Galileo scopes at \$20 each. Barb Wright suggests our club purchase 10. Saskatoon Astronomy Week will be from March 29 to April 4. Earth Hour will be March 28: people will be asked to turn their lights off at 8:30 pm for one hour and observe the sky.
6. Other Business: Al Hartridge raised some concerns about the GA committee's planning to spend \$4,000 to rent two vans to provide transportation for the Cypress Hills GA. Some heated discussion followed, with various members questioning the necessity of this expense and whether it will be self-sustaining. GA Chair Barb Wright and Registrar Rick Huziak explained that like all other GA/SSSP expenditures, costs will be recouped through fees charged.
7. Meeting adjourned at 7:30 pm.

Minutes of the General Meeting March 16, 2009 *by Jim Young*

1. Meeting called to order at 7:45 pm.
2. Approval of the minutes of the previous meeting: Moved by Rick Huziak, seconded by Ellen Dickson, and carried.
3. 100 Hours of Astronomy (Jeff Swick): Events planned for this IYA activity were discussed.
4. Sleaford Site: A motion to spend up to \$1,200 for a snowblower to better clean the site was made by Ron Waldron and seconded by Larry Scott. Carried. It was reported that there are mice at some of the site locations and that traps and bait should be put out before the problem gets worse.
5. Membership (Mark de Jong): We have 73 members at the present time: 69 Ordinary, 3 Life, and 1 Temporary.
6. A motion was made by Rick Huziak and seconded by Ron Waldron to donate \$1,500 towards the building of the Cypress Hills Observatory. Carried.
7. IYA Activities: (See Executive Minutes.) Our events have been posted on the IYA Website.
8. Meeting adjourned at ~8:45 pm.
9. Presentation: "Meteorite Hunting at Buzzard Coulee" by Gordon Sarty & Tenho Tuomi.

MONDAY, April 20, 6:30 PM
Room 175, Physics Bldg., U of S

Potluck Social & Astronomy Art Activity

Join us for potluck supper, followed by a participatory Art Activity led by Kathleen Houston. This is your chance to help create a collective mural, "Holes in the Sky/Les Trous du Ciel," that will fill the glass windows at the Frances Morrison Gallery. This event is for all ages, so bring the kids too!

BOOKS FOR SALE

by Bruce Brandell, Sales Coordinator

Look for these featured titles available for purchase at an upcoming meeting:

CELESTIAL SAMPLER

by Sue French (2005) ----- \$26.00
An in-depth month-by-month sampling of the stars and constellations, with valuable tips on observing techniques followed by 12 very clear monthly sky charts.

ATLAS OF THE CONSTELLATIONS

by Giles Sparrow (2007)-----\$15.00
Charts and diagrams of all 88 constellations, with brief descriptions of the main features of each, including clusters, galaxies, parts of the Milky Way, and nebulae. Features detailed maps of six selected parts of the celestial sphere: the North and South poles, the Square of Pegasus, Orion, Ursa Major, and the Milky Way.

Editor's Corner

by Christine Kulyk

April got off to a great start with 100 Hours of Astronomy, a global initiative reported to be "the largest single science public outreach event ever," with over 1,500 events registered in more than 130 countries. Saskatoon Centre members got into the act in full force, with sidewalk astronomy and other activities held at several venues. (See pages 6-7 for highlights.) It's all part of celebrating the 2009 International Year of Astronomy, with the aim of giving as many people as possible around the world the chance to discover the wonders of looking through a telescope just as Galileo did 400 years ago.

To that end, I'd like to remind everyone about the Saskatoon Centre's IYA Observing Challenge, introduced in our February issue. During 2009, any Centre member who begins, works on, or completes one or more of the observing certificate programs described on the back page of *Saskatoon Skies* will receive a special IYA Certificate and a prize. So be

sure to send me your progress reports (clkulyk@sasktel.net).

Finally, you're invited to be a part of Canadian meteorite history: volunteer searchers are needed this spring to help recover meteorites from the November fall at Buzzard Coulee, Saskatchewan. If you're interested and available to help with the hunt (even for one day or weekend) anytime during the period from mid-April to late May, let me know ASAP (306-374-0811; clkulyk@sasktel.net).



Craters Tycho and Clavius on April 4, using Canon XT and 12 inch Newtonian.
Photo by Tenho Tuomi

President's Message

by Barb Wright

Our April 20 meeting will begin with a springtime potluck supper. Bring a favourite dish and your family to share a meal and a visit. There will be a couple of hotplates to keep things warm, and the coffee pot will be on. Plastic cutlery, paper plates, and napkins will be supplied; but it's a good idea to bring an appropriate serving utensil for your dish. Following supper, everyone is invited to join in a special participatory Astronomy Art Activity.

GA/SSSP plans are coming along quite well. The challenge at present is accommodations: hotel

rooms, condos, and cabins are fully booked, with more people wanting a bed. We are asking people to please share your space if you possibly can. I will be canvassing members for billeting out-of-towners, loaning sleeping bags and mattresses, transporting supplies, and of course for jobs at GA/SSSP. Events start Thursday, August 13, and the weekend schedule is packed solid. Please check the Website

<http://homepage.usask.ca/~ges125/rasc/sssp2009.html#events> for an outline of events. Registration will begin very soon.

Gallery Exhibition: "Celebrating the Night Sky"

by Kathleen Houston

CALL FOR:

1. Exhibition artwork
2. Telescopes and astronomers for Opening Night

For our International Year of Astronomy exhibition at the Frances Morrison Gallery, we are looking for artwork that celebrates the night-sky experience.

EXHIBITION DATES: September 2 to October 1, 2009

OPENING NIGHT: Thursday, September 3, 7:00 pm
• 7:00 - 9:00 pm: Gallery visit, meet the artists, and public address

• 9:00 pm to whenever: Drumming to honour the stars, followed by sidewalk astronomy (on the north sidewalk on 23rd Street in front of City Hall, opposite the Library)

NOTE: We will need astronomers and telescopes set up for public viewing beginning ~9:30 pm.

CURATOR: Kathleen Houston

ARTWORK: Two works per person in any of the following media: Drawing • Painting • Collage • Photography • Needlepoint • Cross-stitch (2 per person, depending on size) • Quilts (one per person) • Poems

CONTACT Kathleen Houston <e.b.a@sasktel.net> by April 30 with the following details:

1. Title, dimensions, medium (i.e., drawing, painting, etc.). If the work is already completed, we will set up a time for me to view it. You are in charge of mounting.
2. For new work not yet brought "down to Earth," let me know what you want to create.

DEADLINE FOR COMPLETED WORK: August 1, 2009

May the sky fill your heart with wonder and the stars illuminate your imagination!

The Hazards of Astro Flashlights by Murray Paulson

Often, I have observed amateur astronomers to hold a flashlight in the mouth as the "third" hand. I have discovered a few hazards associated with this practice. First: Think twice about that flashlight offered to you in the dark of night. You never know just where it has been!

At the Winter Lights Star Party out at Elk Island Park, Alberta, I managed to encounter a new hazard, with one of those white LED flashlights. It was a small unit with an aluminum body, and it was -20°C. Do you

remember putting your tongue on a chain-link fence in the winter time? I was promptly reminded of it as soon as the metal body of the flashlight touched my moist lower lip. There it was, dangling, frozen to my lip, promising exquisite pain if I tore it off! Oh, did it burn! I quickly realized I needed to warm the flashlight in a hurry. I clamped my other lip around it and used my tongue to warm it up, and the flashlight came off with only a bit of my taste buds still stuck to it. (OUCH!) I hope you will all take this cautionary tale to heart — or mouth.

Saskatoon Astronomy Week Part One

Saskatoon Centre members were kept busy with public astronomy events during Saskatoon Astronomy Week, culminating with the 100 Hours of Astronomy effort. Here are some of the highlights. More reports will appear in the May issue.



Earth Hour provided lots of Galileo Moments
Photo by Bob Johnson

March 28 Earth Hour at The Centre Mall (Ellen Dickson): Our Earth Hour star night went very well. We had ~60 people visit four stations at the mall (three outdoor stations with binoculars or telescopes, and one indoors with all the IYA materials). All stations were busy. People driving past would stop to ask what was going on. Some parked and looked through the scopes; others thanked us for the information and rolled on. We definitely generated a lot of interest in astronomy in general, plus our upcoming events at Lakewood, the Farmer's Market, and Beaver Creek.

March 28 Earth Hour at The Centre Mall (Bob Johnson): From the time I set my scope up (which, by the way, I didn't even have time to align) to around 9:40 pm, it was nonstop and long lines. Young and old alike were saying things like, "Wow, unbelievable!" and some jokingly said, "You got a picture in there, that's not really actually the real Saturn." A few people shouted to the people at the end of the line, "It's worth the wait!" Beautiful Saturn came through. One kid that was being held up to the eyepiece shouted "I see it!" and at the same time kicked his father in the leg, he was so excited. It was cool seeing everyone look at Saturn through a scope for the first time and their reactions to it.



Setting up at the Dinsmore Library
Photo by Brian Burke

March 31 at Lucky Lake (Tenho Tuomi): Public Star Night at the Lucky Lake Library was a success, with 18 adults and 20 children — almost four times as many as I had brought IYA material for. I gave a talk at 20:00, then showed the Moon and Saturn with my 8" and 80mm until the Library closed at 21:00. I received many thanks for coming.

April 1 at Dinsmore (Tenho Tuomi): Tonight we were at the Dinsmore Library for a Public Star Night. Ten adults and seven children came to hear the talk and look at the Moon and Saturn — just the right number of people for the handout material I brought. Two clear nights in a row!



Ron Waldron brought the magic of astronomy to a spellbound audience at Fairhaven School
Photo by Murray Strankay

April 2 at Fairhaven School (Jeff Swick): Several of us went to assist Ron Waldron with the Astronomy Night at Fairhaven School. I pulled up to the school and the first thing I see is a BIG lit signboard: "Astronomy Night." I knew it was going to be one of those special, magical nights. People had to register to attend, and they had over 200 people. The adults who attended were wonderful and inquisitive. The true stars of the show, however, were the kids. I heard one girl (grade 4 or so) just gasp and say, "I just had my

Galileo Moment." She said it with such a sense of awe and wonder that I was speechless (those of you who have known me for a while know that does not happen often). I heard two grade 1 boys talking to each other about what they were seeing on the Moon. I was flabbergasted by it. It turns out the grade 1 class had spent a part of their day going over maps of the Moon. This is the second time I've been fortunate to attend one of Ron's gigs, and if I'm lucky, there will be more.

Friendly Astronomy at Hidden Ridge Star-be-Que

by Mike Clancy

I hosted the "Hidden Ridge Star-be-Que" on Saturday, February 28, out on my acreage: a family-friendly event which was surprisingly well attended given the cold weather. It was -22°C when we began viewing at about 19:45, and the Celestron mount on my travel scope seized and broke during the event! There were 27 people in attendance, including 11 children, and we had some interesting chats about what to see and where to find it.

One of the more interesting things was the fact that Venus, shining so brightly near the Moon, was itself a thin crescent, and many viewers thought it was a poor image of the Moon. When I explained how Venus has an orbit closer to the Sun than our own and could therefore "wax and wane" much as our Moon does, it was a genuine Galileo Moment!

I had asked folks to bring their binoculars, so we had a weather-shortened binocular tour of the heavens which included the Pleiades, the Orion Nebula, the Perseus Double Cluster, and Saturn, with the Green Comet (Lulin) in close attendance. After about a half-hour, we went inside to look at the IYA materials which I'd made available for the children to take home. They were particularly interested in the collector cards and the opportunity to have their names in space on a Canadian satellite. After an hour of conversation, cocoa, and (in a few cases) mulled mead, my new astronomer friends went home, promising that we'd do this all again when the weather would be more cooperative!

IAU Designates Gaseous Planets as Brown Dwarfs

by Murray D. Paulson

[Editor's Note: The following report arrived just as our April issue was going to depress.]

It has happened. The IAU has followed on the heels of its decision to downgrade Pluto to a dwarf planet with a decision to designate gaseous planets as failed stars, or Brown Dwarfs. (This decision comes as a blow to the astronomical community, who were already reeling from the impact of the 2007 demotion of Clyde Tombaugh's ninth planet.) The reasoning behind this new ruling was that Jupiter actually emits more energy than it absorbs from the Sun, while Saturn, Uranus, and Neptune similarly fall into the same category. By a vote of 193 to 186 at 12:30 UT on April 1, our solar system was thus reduced to four planets. In the

afternoon sessions, a surprise proposal was submitted to designate the smaller bodies in the solar system that have heretofore been called planets but are the same order of size as some planetary moons as "Moons Without Planets." A hot debate ensued, with name-calling from the opposite ranks. Tempers flared, but in the end, Mercury fell in a similar show of strength to the vocal majority, who believe that "It's a planet if it's like Earth." Then there were three. A JPL representative was overheard declaring, "This is a grim day in astronomy and astrophysics!"

[Editor's Note: In further late-breaking news, the IAU is reported to be set to vote to reopen Saturn's rings.]

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) about any of the above items.



Our Mission: Helping People Discover the Wonders of the Night Sky



Photo by Dalton Wilson
Didsbury, AB
IC434 (Horsehead Nebula)



Sky-Watcher Equinox 120ED
Ideal Astro Photographer and
visual telescope



Join our Observer Night
and ATM & Mirror Grinding Information
Information Evening
Saturday, April 25, 6:30 PM

See website for details
on our Observer Nights
& driving directions



Orion StarBlast 6"
\$339.95



Orion SkyQuest 8"
\$479.95



Sky-Watcher
Collapsible 10&12"

TeleVue



LOSMANDY

1-866-310-8844 - Didsbury, Alberta
Test drive equipment under dark skies

Solar Eclipse Tour in China

July 15 – 25, 2009



Don't miss the longest total solar eclipse of the 21st Century on July 22, 2009. This will be a total eclipse of the Sun with a magnitude of 1.080 that will be visible from a narrow corridor through central China and the Pacific Ocean. Totality will last for up to 6 minutes and 39 seconds, and will be visible in many cities including Shanghai.

Tour includes:

- International airfare from Saskatoon
- Domestic flights within China
- Eclipse Event from Shanghai
- Visit to the Shanghai Astronomical Observatory (SHAO) - Sheshan Station
- Great Wall of China
- Terra Cotta Warriors (in Xian)
- Tiananmen Square

\$ 2749 plus tax (based on double occupancy)

- **early booking bonus ends April 15**
- \$2799 when booked after April 15

www.FlyForLess.ca/SolarEclipse

for more details.



**Fly
For Less.ca**

1-866-656-3761

If your travels don't take you to China this summer, we also offer [cheap flights](#) across Canada, to the USA, and around the world.



The Planets This Month, April 2009

by Murray D. Paulson, RASC Edmonton Centre

At the end of March, **Mercury** passed behind the Sun into the evening sky. On April 26, Mercury will be at greatest eastern elongation, where it will set 2 hours and 15 minutes after the Sun (at 11:18 pm). The ecliptic rises sharply against the western horizon, so this should be a very good evening apparition. On the 26th, Mercury will display a magnitude 0.3, 8.0" crescent. This is worth getting out there to see.

Venus has passed into the morning sky and will trace its way up into the predawn sky over the next few months. It was wonderful in the month before it passed over the Sun, and it will reverse the process as it waxes back into a fatter crescent in April. I managed to see Venus after sunset one evening and again the next morning because it was so high above the Sun. Fantastic! In late March, it looked like the Sun in the last moments before totality in the eyepiece of my Sky 90. The twilight sky was pretty wiggly, and the chromatic scatter in the atmosphere near the horizon made for quite the sight. At the beginning of April, Venus shows a magnitude -4.0 razor-thin 59" crescent in the eyepiece. The crescent is quite visible in binoculars. Give it a look before it shrinks too much. On the morning of April 22, Venus is occulted by a thin crescent Moon in the dawn hours. (Disappearance at 6:39 am and reappearance at 7:41 am for Saskatoon.) Venus sits 33 degrees from the Sun and shows a 45" crescent. The Sun rises at 5:47 am in Saskatoon, so what you need to do is get out there before sunrise and locate Venus in your polar-aligned, equatorially driven scope. Watch the disappearance, then come back 55 minutes later and watch the reappearance. Venus disappears on the lit side of the Moon and reappears on the dark side. Switch to high power for the reappearance. The slender tip of the crescent will be the first part to reveal itself. Venus is quite large, so it will take 60 seconds as the Moon slides off it. It should be very cool. In the first week of May, Venus will shine at magnitude -4.5 and will show a fat 37" crescent in the eyepiece. It will have leapt out to 40 degrees elongation from the Sun, but hovers just above the eastern horizon in the twilight.

At the beginning of April, **Mars** shines at magnitude 1.1 and shows a 4.3" disk in the eyepiece. The morning ecliptic is shallow, making it just about impossible to find. It will move from the constellation

of Aquarius to Pisces over the month, passing 26 arc-minutes below Uranus on April 15. **Uranus** is magnitude 5.9 at this time. Mars is in conjunction with Venus in the third week of the month, when Venus passes 4.1 degrees above it at closest approach on the 24th. At this time, Uranus sits 4.2 degrees west. This is your best opportunity to find Mars with the bright signpost of Venus nearby.

Jupiter is in the eastern part of Capricornus, shining at magnitude -2.1. In the eyepiece it shows a 36" disk and lies low in the southeast morning sky. The rising twilight will make for a narrow window to spot it. It will not be well placed until the summer star parties, when it will be at opposition.

Saturn has been spectacular with its rings nearly edge on. I have had a few nights with great seeing where you could see little moons sprinkled about the ring tips. It is a great time to hunt for those inner satellites, with significantly less glare from the rings. At the beginning of April, Saturn shines at magnitude 0.6 and shows a 19.5" disk in the eyepiece. Over the month, the planet will shrink slightly. During the first week of May, Saturn will shine at magnitude 0.7, and the disk will be 18.8". Here is a listing of Titan events for the next month.

Titan satellite events

Date	Event	UT	Local time
21-Apr	EcD	8:20	2:20
21-Apr	EcR	13:10	7:10
29-Apr	ShI	6:22	0:22
29-Apr	ShE	11:16	5:16
7-May	EcD	7:23	1:23
7-May	EcR	12:40	6:40



ISS caught on the evening of March 26 using a Konica-Minolta camera at f2.8 for 1/1000 sec on a C-8 at 162x.

Photo by Garry Stone

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

Ken Maher	109
Norma Jensen	108
Ron Waldron	105
Brent Gratias	96
Mike Oosterlaken	93
Kathleen Houston	Up! 89
Margo Miller	77
Wade Selvig	75
Garry Stone	57
Ellen Dickson	32
Jeff Swick	24
Barb Wright	23
Bruce Brandell	5
Katelyn Metanczuk	4

FINEST NGC CLUB

Certified at 110 Objects:

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

Larry Scott	Done!	110
Scott Alexander		97
Bill Hydromako		55
Sandy Ferguson		23
Mike Oosterlaken		20
Donna-Lee May		14
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

Brent Gratias	Done!	36
Mike Oosterlaken		32
Anna Clancy		24

EXPLORE the UNIVERSE

Certified for Certificate:

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

Katelyn Metanczuk	15
-------------------	----

Isabel Williamson Lunar Observing Certificate

Norma Jensen	50
--------------	----

HERSCHEL 400 CLUB

Certified at 400 Objects:

D. Jeffrey, R. Huziak, D. Chatfield

Tenho Tuomi	Up!	398
Gord Sarty		251
Scott Alexander		117
Mike Oosterlaken		68
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.astroloague.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

Looking back on the last month at Sleaford:

- Feb. 28: Three members observed comet Lulin with a howling wind at -25°C . Not fit for man nor beast, but the shovelling and the pushing and the cursing kept us all warm. Thanks, Ron.
- Mar. 14: Three members observed comet Lulin with a howling wind at -15°C . Marginally better conditions, so I watched Lulin sail past the Eskimo Nebula for 2 hours. Time well spent.
- Mar. 21: Messier Marathon postponed due to weather conditions.
- Mar. 26 at Saskatoon with neighbours and daughters: Watched STS119 pass overhead followed closely by the ISS. Very fetching sight.

- Mar. 28: Eight members attended the rescheduled Messier Marathon. Conditions were clear, calm, and around -12°C . Humidity was very high, resulting in lots of frost and heavy skies. A pleasant, enjoyable evening with average seeing and poor transparency. Stayed out late enough to see M13 rising in the east. Very nice to see more than a handful out at Sleaford.

Next Observers Group will be on April 17. This is the same weekend as the Anglin Lake event, but if you're like me and can't be there, then come to Sleaford. Moonless evenings run from about April 12 to 27.