

Saskatoon Skies

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

Vol. 35, No. 6

June 2004

Pictures of the Month



Our own **Al Hartridge** who is well known for his astrophotographs has adapted the latest technology to his picture taking. Here are pictures taken of Jupiter and Saturn on March 20, during the Messier Marathon when the shadows of Io and Ganymede passed across Jupiter. The pictures were taken using the popular Philips ToUcam webcam and an Astrophysics 6" refractor with a 3x barlow. (See page 6 for another picture of the month).

In this issue...

Membership Information, Bottle Drive & U of S Observatory Hours	2
RASC Calendar of Events; General Meeting Notice	3
Sky Buys & Mirror Cells	3
Newsletters from Other Centres	3
An Invitation to the Saskatchewan Summer Star Party 2003	4
SSSP 2004 Tentative Schedule of Events	5
It's Noctilucent Cloud Season!	5
The Sleaford Page	6
Comet C/2001 Q4 NEAT	6
Minutes of the Executive and General Meetings	7
Books for Sale	7
The Planets This Summer, 2004	8
The Messier, H-400 & H-400 II, FNGC, Binoc & EtU Club	9
Observing Group Notes	9
Northern Prairie Starfest	10



Saskatoon Centre
The Royal Astronomical Society of Canada
P.O. Box 317, RPO University
Saskatoon, SK S7N 4J8
 URL: <http://duke.usask.ca/~ges125/rasc>
 E-MAIL: Huziak@SEDSsystems.ca
 TELEPHONE: (306) 665-3392

Membership? It's never too late to join!

About this Newsletter...

Regular: \$52.00/year Youth: \$27.50/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, Mike Clancy, or renew through the National Office and let Mike 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 2004
- The Journal of the RASC (bimonthly)
- SkyNews Magazine (bimonthly)
- use of the Centre library
- discounts to Sky & Telescope Magazine
- discounts of Sky Publishing merchandise
- free, no-cost, no-obligation, 3-month temporary membership if you don't want to join right now!

Saskatoon Centre's main officers:

President – Rick Huziak
Vice-President – Ron Waldron
Secretary – Al Hartridge
Treasurer – Barb Young

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

Newsletter Editor – *Tenho Tuomi*

Production & Layout – *Linda Janzen*

Copy – *Brian Friesen & WBM*

Collate – *Brian Friesen, Walter Essar,*

Jim Young, Les & Ellen Dickson,

Yannis Pahatouroglou

Labels & Temps – *Mike Clancy*

Web Posting – *Gord Sarty*

Printing of this Newsletter is courtesy of

WBM OFFICE SYSTEMS

601 2nd Avenue North

Saskatoon, SK S7K 2C7

Copying is provided on a Risograph copier for a nominal fee.

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 articles. 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 – preferred as **plain unformatted ASCII text files without line breaks**. Images sent by e-mail should be attached .JPGs (.GIFs also accepted). Send e-mail submissions to the editor at <tuomi@sasktel.net>. Please send articles in "generic" formats with simple formatting – one tab at the beginning of paragraphs, one space after commas and periods. 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 stated), but source credit is requested. **DEADLINE for submissions is the 26th of each month.** *Saskatoon Skies* accepts commercial advertising. Please call the editor for rates. Members can advertise non-commercial items free of charge.

Bottle Drive & Canadian Tire \$

by *Darrell Chatfield*

Canadian Tire Money collected to date is \$34.25. Thank you to all who contributed to our fundraising for the Centre. Please bring your bottles and Canadian Tire Money to the General meetings. I will collect them after the meeting concludes. If you cannot make it to the meeting but would like to contribute, please call me at 374-9278.

2004 RASC Calendar of Events

DATE	EVENT	CONTACT	TELEPHONE
June 21	General Meeting - Rm 175 Physics, U of S, 7:30 p.m. -- Digital Cameras & Moon Pictures - Tenho Tuomi, SSSP Primer - Les Dickson, Venus Expedition, Comet Slides - Rick Huziak, Meteor Search – Kim Mysyk	Rick Huziak	665-3392
	Alberta Star B-Q, Eccles Ranch, Caroline, AB, http://www.syz.com/rasc/starbq2004.htm	Rick Huziak	665-3392
July 20 -25	AAVSO, ALPO, AL Annual Meeting, Oakland, CA	Rick Huziak	665-3392
Aug. 11-12	Perseid Meteor Shower Peak	Rick Huziak	665-3392
Aug. 12	Noctilucent Cloud Season ends	Rick Huziak	665-3392
Aug. 12-15	Saskatchewan Summer Star Party (SSSP'04), Cypress Hills Inter-provincial Park	Les Dickson	249-1091
Aug. 14-22	Mt. Kobau Star Party, Osoyoos, BC	Jim Failes	(250) 763-6962
Sept. 9-12	Alberta Star Party, Eccles Ranch, Caroline, AB, http://www.syz.com/rasc/asp2004.htm	Rick Huziak	665-3392
Sept. 17-19	Northern Prairie Starfest, East Alberta, http://edmontonrasc.com/nps.html	Rick Huziak	665-3392

GENERAL MEETING

**of the Saskatoon Centre, RASC
Monday, June 21, 7:30 p.m. Room 175 Physics, U of S**

Presenting:

Digital Cameras & Moon Pictures

By Tenho Tuomi

On using digital cameras with a telescope

SSSP Primer – by Les Dickson

Meteor Search Videos -- by Kim Mysyk

**Venus Expedition Report, Comet Slides
By Rick Huziak**

**NOTE: THERE WILL BE NO EXECUTIVE
MEETING THIS MONTH.**

SKY BUYS & MIRROR CELLS

The Saskatoon Centre's Swap and Sale Page!

For Sale: *Astronomy 2002*, by Robert Burnham –
Colour sky charts, planet information, etc. – \$15.00.

35mm Bausch & Lomb Plossl eyepiece, fully coated.
Excellent shape, in original box with dust caps –
\$80.00. Call Darrell at 374-9278.

For Sale: RASC Royal Centenary coffee mugs. Pick
yours up at the next General Meeting – \$9 each

For Sale: *Millennium Star Atlas*, 3-volume set – \$200;
REALSKY CD's – \$200. Call Dale Jeffrey at
(306) 223-4447 or dalejeffrey@sk.sympatico.ca

Newsletters from Other Centres

-- Hello all. Here are all the newsletters that have been received for the past month. This way, if you want to read them, you will know what is available and what other Centres have been doing. Please let me know which ones you would like to read and we can arrange a time to go to the library to get your selection. - Ellen Dickson (242-1091)

- May 2004 Nova – Vancouver Centre - “Mirror Grinding, Part 2”
 The StarSeeker – Calgary Centre - “Public Events Round – Up”
 Stardust – Edmonton Centre - “The Lazy Astronomer’s Guide to Excuses”
 Stardust – Edmonton Centre - “Money Motions”, “Summer Star Party Schedule”
 Skyward – Montreal Centre - “Riding the h-Alpha Wavelength”
- April 2004 Nova – Vancouver Centre - “Travels to Mars”, “The Cost of a Dark Sky”
 Scope – Toronto Centre - “Supercharge Your SCT”
 The StarSeeker – Calgary Centre - “Mars on Earth”, “Astronomy Quiz”
- March 2004 Scope – Toronto Centre - “Science Centre Hosts Lunar Rock”, “Winter Vacation Triangle”
 The StarSeeker – Calgary Centre - “Fish Creek Spring Star Night”
 Stardust – Edmonton Centre - “Astronomy Days”, “The Reality of Planetary Amateur Telescopes”

An Invitation to the Saskatchewan Summer Star Party 2004

by Les Dickson, Chairman SSSP 2004



I want to invite all of our members to attend the **Saskatchewan Summer Star Party** this coming **August 12 to 15** at the **Cypress Hills Interprovincial Park**, 32 km S of Maple Creek, Saskatchewan. Come out and share your love of astronomy with 200 of your closest friends!

The Cypress Hills provide some of the clearest nights anywhere in Canada. The late Father Lucien Kemble is quoted as saying that he had "...rarely seen such clarity and depth in the summer skies..." The top of the Hills is 1460 metres above sea level, the highest point east of the Rocky Mountains, and well above the prairie haze of summer. Historical weather maps published by Jay Anderson in the RASC Observer's Handbook indicate that the area around Cypress Hills has the best chance for clear skies (less than 30 percent mean nighttime cloud cover) in July and August compared to any other site in Canada. Each evening we set up in the Meadows Campground, a large open area well away from any lights. While there, if you get tired of looking through your own telescope, you can wander around to look at and through other people's telescopes, discuss eyepieces and filters, or just lay back and enjoy the view. It is worth coming out just to see just how dark the night sky can be!

The evening observing sessions Friday and Saturday night are complemented by the day-time activities. On Thursday we have an evening Early-bird Wienie Roast planned for the early arrivers for supper on Aug. 12. Organized activities begin on Friday night with the Bring-your-own Short Presentations Session (please participate - we'll have a video projector, slide & overhead projector available), followed by all-night observing. A Swap Table will be set up Saturday morning in the Meadows for those who would like to buy or sell equipment or accessories. Saturday afternoon features talks and workshops, including the keynote Lucian Kemble Memorial Lecture to be given by our special guest, Joshua

Roth of Sky and Telescope magazine who will be speaking on "New Chapter in Cosmology: Dark Energy and the Accelerating Universe". After the evening banquet, we will move up the Meadows for a "Unveil Your 'Scopes Walk-Around Social", followed by more observing. We also have door prizes, astronomy books for sale, an astrophotography contest, t-shirts, hatpins and more! All daytime talks take place in air-conditioned comfort in the conference room at the Resort.

If you have not been to the Cypress Hills Inter-provincial Park, you are missing something! The park is such a great place to visit, you may want to use the promise of clear dark skies just as an excuse to come and have a short enjoyable vacation. There are plenty of activities for the non-observer family members and tired astronomers: The park features a lake, hiking trails, trail rides, rental boats, mini golf, regular golf, a general store, a full resort, two restaurants, an ice-cream and snack shop, a souvenir shop, moose and other varmints (no snakes or big cats), ball diamonds, picnic grounds, tennis courts, an outdoor heated pool, hot tub, and a museum.

There is a great variety of accommodations. Campsites are freely available, and reasonably-priced hotel, cabin, and condo units are available by pre-booking with the park. For accommodation information, call the Resort at (306) 662-4477 or the Park at (306) 662-5484.

Many of the members of the Saskatoon and Regina Centres devote many hours and days of their time working to put together an enjoyable and informative weekend in one of the most beautiful areas of the province. We are always looking for more volunteers to help us at the party. Even if you don't want to bring equipment or spend much time observing, we encourage you to come, make it a vacation, and help out for just a few hours with registration, book sales, coffee and pop sales, or security. If you want to help, contact Les Dickson (249-1091 or dicksonl@sasktel.net), Bill Hydomako (384-4781 or wm.hydomako@sasktel.net) or Rick Huziak (665-3392 or huziak@sedsystems.ca).

For more information on the event, contact Les, Bill or Rick, or see our website at <http://duke.usask.ca/~ges125/rasc/sssp2004.html>.

We look forward to seeing you all there!

SSSP 2004 Tentative Schedule of Events

Come early and stay late if you choose. Events take place in the Resort's Wapiti Room (WR), the Meadows Campground (MC) or the Park Amphitheatre (PA). Every day ends with viewing in the MC.

THURSDAY AUGUST 12	17:30	Early-Bird Ice-Breaker Wiener Roast (PA)
	21:30	Evening Viewing (MC)
FRIDAY AUGUST 13	19:00	Opening of Astrophoto Contest submissions and presentation materials
	19:30	Welcome address and participant short presentations (WR)
	21:30	Evening viewing (MC)
	22:00	Observing Workshop, title TBA (MC)
	22:00	Public Starnight viewing at the Tennis Courts
SATURDAY AUGUST 14	11:00	Swap Table (MC)
	13:00	Astronomy presentations and discussions (WR)
	15:00	Social Break (WR)
	15:30	Lucian Kemble Memorial Lecture - "New Chapter in Cosmology: Dark Energy and the Accelerating Universe" by special guest speaker Joshua Roth of Sky and Telescope magazine (WR)
	16:30	Astrophotography awards and door prize draw (WR)
	16:50	Afternoon wrap-up and invitation back to SSSP 2005, August 5-7 (WR)
	17:00	Break for Banquet setup (WR)
	17:10	Group Photo (Outside at the Resort)
	18:00	Evening Banquet (WR)
	20:00	Unveil Your 'Scopes Walk-Around Social (MC)
	21:30	Evening viewing (MC)
	22:00	Observing Workshop, title TBA(MC)
	22:00	Public Starnight viewing at the Tennis Courts

It's Noctilucent Cloud Season! By Rick Huziak

NLC season began on May 22nd and will eventually end on August 12th. Noctilucent clouds are mysterious icy structures that appear at the top of the atmosphere 80 kilometers up. Likely, these clouds are there all year around, coming and going every few days, but solar illumination circumstances make them visible to the prairies over the summer months. Because the clouds front-scatter sunlight, the clouds are best seen when the sun is 6- to 16-degrees below the horizon. For much of the NLC season, the sun remains in this depression zone, and so the clouds can remain illuminated in the north part of the sky all night long. NLCs often look much like cirrus clouds. But when all earth clouds should be black in the earth's shadow, the NLCs shine brightly due to their extreme height. They are often bright blue-white, and sometimes show iridescent colours. They also come in many forms -- patches, bands, veils, billows, whirls, and a very distinct "herring bone" structures. At times, they become bright enough to cast shadows. The clouds seem to be a mixture of meteoric dust and earth-based pollutants coated with water ice, but no one

is quite sure how the pollutants get so high in the atmosphere, nor where the water comes from at that altitude.

If you are looking north from dusk to dawn during this time and see bright herringbone, you are likely seeing NLCs. Once you have identified these clouds the first time, you will always notice them. If you want to contribute to an on-going research project, NLC observations are coordinated by Mark Zalcik of Edmonton. You will need to record the following information: your name, date seen, location from which seen, time period seen, position angle of the extremes, altitude about the north horizon for bottom and top, and the forms of NLCs seen. At the end of the observing season, send your observations to Mark at: NLC Can/Am, #7 - 14130 80 St., Edmonton, AB, T5C 1L6. If you send Mark a note earlier, he will send you an NLC introductory package explaining the program more thoroughly, then you will receive the annual summary report and newsletter, Quicksilver. Last year, NLC observations were made by Centre members Gord Sarty, Garry Stone, Tenho Tuomi, Wade Selvig and myself.

The Sleaford Page By Rick Huziak

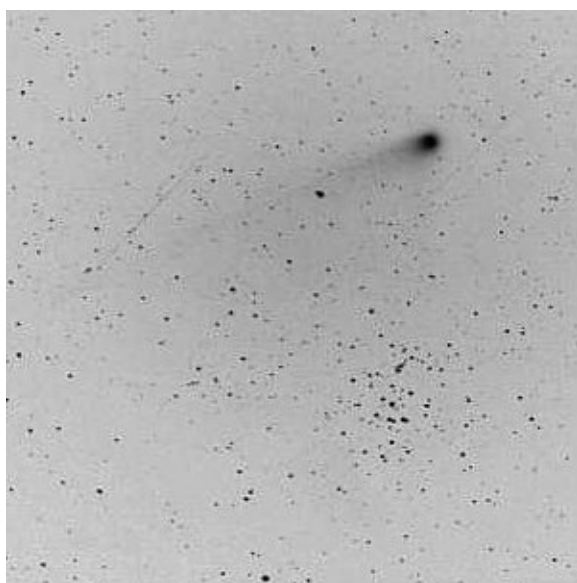
Observing -- It is not unusual to find someone at Sleaford on any clear night of the week between 3rd quarter and 1st quarter moon. The Saskatoon Centre has a core of dedicated observers that don't like wasting good observing nights, and although weekends are preferred, they are not always clear. So, if you want to go observing on an oddball night, give me a call. If I can't go out, I usually know who will. Brent Burlingham, the Observing Coordinator sets up a monthly observing date at Sleaford, but if you can't make an organized session, come to an informal night. Although it may not seem like a good time of the year to go observing, an early sun-up "guarantees" that you will get home "early" and get at least 4 or 5 hours of sleep before you have to go to work! Please remember to sign in when using the site. We also have a number of observing resources in the Warm-up library including: Sky Atlas 2000, Burnham's Celestial Handbook, The Observer's Handbook, RNGC, NGC and other DSS Prints binder, Cool Stuff to Look At binder, all of

the AAVSO variable star charts and several other books related to deep sky observing.

Maintenance -- Bill and I did some maintenance at the site on May 23rd, including work on getting the Patterson dome rotating. Bill found that the dome, itself, is out-of-round, and so we will have to come up with a creative solution to make it round again. I cleaned Eetook's 12.5-inch mirror, taking off a few years of filth. Limiting magnitude will be delightfully better now! Recently, an electric kettle was added to the list of accessories, so that those who do not drink coffee can make tea.

Usage -- The table below shows the site usage over the last 9 months, with 152 members using the site on 47 days during this time. Usage over the winter would have been better except that the sky was unusually cloudy from November to February.

Month	# Nights Used	# Members	Notes
Sep.	8	23	
Oct.	9	32	Open House this month
Nov.	3	5	Poor weather
Dec.	2	4	Foul weather
Jan.	1	1	Rotten weather
Feb.	3	11	
Mar.	7	37	Messier Marathon month
Apr.	7	18	
May	7	21	(until 23 rd)



Comet C/2001 Q4 NEAT

One of the main events this spring was the appearance of Comet C/2001 Q4 NEAT in the evening sky. While not bright enough to capture the attention of the public, it did provide photo opportunities for astronomers. This is a photo of the comet taken by **Bill Hydomako** from Sleaford on May 15, 2004 when the comet reached perihelion, its closest approach to the sun. The bright star in its tail is gamma Cancer. The star cluster below it is M44, the Beehive cluster, at magnitude 3.1. The visual brightness of the comet was similar to it. The photo was taken with a 200 mm telephoto lens - 1/2 hour guided exposure and ASA 400 film. [Ed.]

Minutes of the EXECUTIVE MEETING

May 17, 2004, 6:30 pm -- Rm 175 Physics, U of S

1. Minutes of previous meeting adopted. Moved by Jim Young, seconded by Ellen Dickson and carried.
2. Sask. West: SSSP is listed in Sask. West as one of the summer events in Saskatchewan.
3. SSSP: Bill Hydromako has distributed brochures to the western astronomy clubs. Also has sent email or brochures to any on record as attending a previous sssp. Web Page has been updated.
4. The next meeting of the SSSP planning committee will be on June 3rd at Barb Young's at 7:30pm.
5. Doug Miller is interested in speaking at SSSP. No date has been set for the advance trip to Cypress Hills.
6. Brent Burlingham will open up at Sleaford on Friday evening May 21st for those who wish to observe.
7. Fundraising: Darrell Chatfield has raised another \$102.00 for the centre from bottle collection.
8. Projects to Commit to: Ron Waldron talked about future goals that the club might have including a five-year plan. He spoke about the Appreciative Inquiry Cycle. A decision was made to have a 3-hour seminar in November.
9. Meeting adjourned at 7:23 pm.

Minutes of the GENERAL MEETING

May 17, 2004, 7:00 pm -- Rm 175 Physics, U of S

1. New Members introduced.
2. Minutes of the previous meeting adopted as circulated. Moved by Rick Huziak, seconded by Chris Martin and carried.
3. Provincial Parks: asking for talks at Pike Lake Aug.14 and 15 anyone wishing to volunteer let Rick know.
4. SSSP 2004 will be on Aug 12 through Aug 15. Les Dickson encourages more of our club members to attend. The star party is now officially starting on Thursday evening with the wiener roast.
5. New coffee cabinet: Garry Stone has built a superb cabinet to house the centre's coffee supplies that will be kept in the Physics Department at the University of Saskatchewan.
6. Newsletter: Linda will be in Greece for the next while so Tenho will be very busy producing the next newsletter. Please have everything in to him by May 26th.
7. Program:
 - Plans for the upcoming Venus Transit -- Rick Huziak mentioned that a group from Edmonton plans to head for Flin Flon to view the transit. He is asking for members of our club to join the group.
 - The Geology of Mars -- Kim Mysyk.
 - Hunt for the March 21st Meteorite -- Rick Huziak
8. Meeting adjourned at 10:10pm.

BOOKS FOR SALE *by Bruce Brandell, Sales Coordinator*

We have a number of books, calendars and pins left over from SSSP Sales.
Call 249-1119 or e-mail bruce_brandell@yahoo.com to reserve your **free** calendar.

Title	Author	No. Avail.	Price (Can\$)
RASC 2004 Calendar	Rajiv Gupta, Editor	7	Free
Astrophotography	G. N. Patterson	oodles	\$5.00
SSSP 2003 Lapel Pin		5	\$5.00
SSSP 2002 Lapel Pin		34	\$4.00
SSSP 2001 Lapel Pin		24	\$4.00
RASC Centenary Mugs		36	\$9.00

The following books can be ordered from Sky Publishing (Sky and Telescope). Discounts are available for Centre members.

Parallax: the Race to Measure the Cosmos. Alan W. Hirshfeld. This is a very interesting biographical history of the origins of modern astronomy, bringing to life the long standing controversy, esp. 16th to 19th centuries, between the Ptolemaic and Copernican concepts of the universe, and the astonishing attempts to use parallax to determine distances to the stars, \$23.95 US.

June 8, 2004: Venus in Transit. Eli Maor, \$17.95 US.

Transit, When Planets Cross the Sun. Michael Maunder & Patrick Moore, \$39.95 US.

Touring the Universe through Binoculars. Philip S. Harrington, \$34.95 US.

The Cambridge Star Atlas. Wil Tirion, \$24.95 US.

The Deep Sky, An Introduction. Philip S. Harrington, \$24.95 US.

Observing Variable Stars. David Levy, \$19.95 US.



Mercury has come down from its poor morning apparition and will be in conjunction with the sun on June 18th. It will pass only 45' arc minutes above and on the far side of the sun. Later on next month, Mercury and Mars get right up and close on July 10, when they pass within 10 arc minutes of each other at 6 pm local time. If you can set up with an equatorial before sunset and track Mercury, you may see the pair by the time it gets dark enough to see Mars. Mars's 3.8" disk shines at magnitude 1.8 vs Mercury's 6.1" gibbous disk shining at magnitude -0.2. Sunset is 10:00 pm with Mercury setting about an hour later. This is one of the closer passes of two planets, so give it a try! Dichotomy, or half phase, occurs on July 23rd. Greatest eastern elongation is on July 26th local time with Mercury 27.12 degrees from the sun. On Saturday July 25th, Mercury will be just over 1 degree below Regulus. Almost one month later, on August 23, Mercury will pass between us and the sun at which time it will be 4 degrees below the sun.

As of the writing of this column, the success of the various expeditions is up to speculation, but I am sure a good number of us witnessed the transit. The main event is now over, and you will see Venus in the morning sky. At mid month only a week after the transit, Venus should be visible a half hour before sunrise. It shines at magnitude -4.0 and shows a thin 56" crescent. By month's end it will rise an hour and half before the sun and has shrunk to 46" at magnitude -4.4. In the first week of July, Venus will swing by Alderbaran and on closest approach on the 5th when it will be only 1 degree away. It will be the harbinger of dawn for the summer starparties where it rises 3 hours before the sun. "Last call for faint fuzzies!" By early August, Venus now shines at magnitude -4.1 and shows a 28" near half phase. Dichotomy occurs on August 17th which is also the time of greatest western elongation where Venus sits nearly 46 degrees from the sun. It now rises nearly 4 hours before the sun.

Mars is long gone into the twilight glare and won't make it back into the morning skies until next fall. It has faded into insignificance except for the little robots wandering its surface. Just where are those things anyway?

Jupiter starts off this month at magnitude -2.0 and shows a 36" disk in the eyepiece. Jupiter is nearly at quadrature and you can really notice the phase of the planet making one edge of the disk sharp and well defined while the other is soft. The eclipse and shadow events show quite the offset between the object and planet now. For example on June 19th, the separation between Callisto's transit and shadow transit is 12 hours. Check the Handbook for details on eclipse and transit events. Remember to subtract the 6 hours for the conversion from UT to local time which changes the date as well.

Saturn has disappeared into the twilight glare and will pass behind the sun on July 8th. By late summer you may be able to get your first glimpses of it at the star parties in the early morning hours.

The outer planets are the only planets that are favorably placed for summer observing. Well, if you can call 25 and 15 degrees off the horizon, "favorably placed". Pluto comes to opposition on June 11, but with the summer twilight, it would be quite the stretch to hunt for it. It is well situated for an early evening hunt in August at the summer star parties in the lower eastern corner of Ophiuchus, so put it down on your observing list. While you are at it, check out the two planetaries and the globular clusters near by. If you are near the 49th parallel, it will sit almost 27 degrees above the horizon when it transits the meridian.

Neptune is next in line, coming to opposition on August 5th. It will show a 7.8 magnitude tiny 2.3" blue green disk. If you have lots of aperture, hunt down its brightest magnitude moon which I believe shines at 13.9. Later in August, Uranus comes to opposition on the 27th. It will be naked eye for those earnest for a challenge shining at magnitude 5.7. In the telescope, it will show you a blue 3.7" disk. It also has an array of moons of which a few are within amateur's reach. Uranus has really climbed up the ecliptic and sits at 26 degrees from our northern latitude. From the starparties, add another 4 degrees to give it a decent height for observing.

Here's hoping for a long pleasant summer. Clear skies!

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 400 Herschel II, Explore the Universe, or 35 Binocular objects 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

Larry Scott	New	110
George Charpentier		101
Mike Oosterlaken		93
Lorne Jensen		88
Mike Clancy		83
Brent Gratias	Up!	76
Wade Selvig		75
Brent Burlingham		58
Garry Stone	Up!	57
Kathleen Houston	Up!	51
Les Dickson		28
Ellen Dickson	Up!	23
Brian Friesen		15

FINEST NGC CLUB

Certified at 110 Objects:

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

Tenho Tuomi		101
Scott Alexander		97
Sandy Ferguson		23
Mike Oosterlaken		20
Bill Hydromako		20
Mike Clancy		4

Chatfield BINOCULAR CERTIFICATE

Certified at 35 Objects:

M. Stephens, T. Tuomi, M. Clancy

Rick Huziak	Up!	35
Mike Oosterlaken		32

EXPLORE the UNIVERSE

Certified for Certificate:

M. Clancy, T. Tuomi

HERSCHEL 400 CLUB

Certified at 400 Objects:

D. Jeffrey, R. Huziak, D. Chatfield

Gord Sarty		251
Scott Alexander		117
Mike Oosterlaken		68
Sandy Ferguson		18

HERSCHEL 400-II CLUB

Certified at 400 Objects:

Rick Huziak	Up!	211
Darrell Chatfield	Up!	150

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 & Herschel 400 lists will be available at each general meeting or can be mailed out on request to distant members. Each month I'll be posting updates.

RASC Observing Group Notes by Brent Burlingham, Observing Group Coordinator

Observers have been busy and productive this month. Brent Gratias jumped way up in his Messier count to 76 objects. Garry Stone added 4 Messiers to bring his total officially observed to 57, and Ellen Dickson added another Messier to her total, bringing her up to 23. Kathleen Houston managed to squeeze 3 more Messiers in between Comet Neat observing sessions to bring her total to 51.

Kathleen has been doing most of her observing in and around her home town of Prince Albert, and remarks that 30 minutes west of Prince Albert gets her to skies as dark as we see 45 minutes east of Saskatoon at Sleaford. Her new favorite eyepiece is a 2" 42mm.

Rick Huziak added 12 more objects to his Chatfield Binocular Certificate total, now up to 35, and added 5 more Herschel 400-II objects bringing his total up to 211. Darrell Chatfield added 7 more Herschel 400-II objects to bring him up to 150 objects.

Congratulations Brent, Garry, Ellen, Kathleen, Rick and Darrell!

Rick spent one evening at Sleaford (actually I'm sure he spent lots more, but this was the only one he reported) observing Comet

C/2001 Q4 (NEAT) and C/2003 Q4 (LINEAR) (he thinks...designations were from memory). He stayed until morning to view "C/2004 N-something Bradfield" until going to work forced him to leave.

The impromptu Chatfield Binocular Challenge/Comet Observing session we scheduled for May 21st was the victim of cloudy skies.

Drop me a line or phone (brent.burlingham@usask.ca or 244-9872) any time you add to your observing totals, or any time you do any observing you'd like to share with the club.

Clear Skies!
Brent Burlingham, Observing Group Coordinator

[Good news! Congratulations are due to Larry Scott, who completed his Messier list on May 17th by sighting M83 through the trees at Sleaford. Larry makes a very bold appearance onto the Messier list by entering onto and completing the list on the same day! Larry did his Messiers over a 2-year period. He will apply for the certificate at the next meeting.] -- Rick

Northern Prairie Starfest

An Amateur Astronomy Gathering

Sept. 17-19, 2004

Black Nugget Lake
Near Tofield, Alberta

- ★ dark prairie skies
- ★ full camping/RV facilities on site (showers, electricity)
- ★ hotels and town facilities 15 minutes north
- ★ birding, canoeing, fishing
- ★ 1 hour drive southeast of Edmonton

Join us for an unforgettable autumn under the stars. Bring your telescope and your sense of wonder for stargazing under seriously dark skies.

Bring the whole family and enjoy a weekend of camping with RV sites, flush toilets, showers, playground and concession store. Daytime activities abound - the site is located on a major fall migration flyway and offers birding opportunities. Lakeshore campsites are available, with canoeing and fishing at your doorstep. A wiener roast (bring your own food and drink) will be held 5:30 - 7 PM Saturday night.

While white lights of any kind are not allowed after dark in the Starfest area since they immediately destroy fellow astronomers' dark adaptation, a separate location is available for campers wanting to use white lights at night.

Access to the lake is entirely by paved road (see map below), and the only fees are for use of a campsite, making this an inexpensive way to join fellow amateur astronomers for a weekend of autumn observing at a convenient dark site. So mark your calendar and don't miss this exciting opportunity to view the splendours of the fall night sky.

