

Saskatoon Skies

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

Vol. 35, No. 10

October 2004

Participants Sign the Cypress Hills Dark Sky Preserve Declaration



PHOTO BY VANCE PETRIEW

Kneeling bottom left: David Rohatensky, Ft. Walsh National Historic Site Manager; behind: Richard Huziak, Saskatchewan Light Pollution Abatement Committee (Saskatoon & Regina Centres); behind Rick: Julie MacDougall, CHIPP Manager, Alberta; lower right: Bob King, Calgary Light Pollution Abatement Committee (Calgary Centre); beside Bob: Cheryl Penny, Superintendent, Saskatchewan South Field Unit, Parks Canada Agency; top right: Brad Mason, CHIPP Centre Block Manager.

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Saskatoon Centre
The Royal Astronomical
Society of Canada

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Membership? It's never too late to join!

Regular: \$58.00/year Youth: \$31.25/year Lifetime: \$1000

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**
- **The Journal of the RASC** (bimonthly)
- **SkyNews Magazine** (bimonthly)
- use of the Centre library
- discounts to **Sky & Telescope Magazine**
- 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

About this Newsletter...

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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 \$50. 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
Oct. 4-29	Geosync Satellite Flare Month	Rick Huziak	665-3392
Oct. 16	Sleaford Observatory Open House	Rick Huziak	665-3392
Oct. 18	RASC Executive Meeting – 6:30 p.m., 175 Physics, U of S	Rick Huziak	665-3392
Oct. 18	RASC General Meeting – Alberta Star Party, Northern Prairie Starfest, Observing Meteors, The CHIPP DSR & Annual Elections – 7:30 p.m., 175 Physics, U of S	Rick Huziak	665-3392
Oct. 20	Orionid Meteor Peak – 10:00 p.m.	tbd	
Oct. 27	Total Lunar Eclipse	Rick Huziak	665-3392
Oct. 29	Lethbridge Astronomy Society General Meeting – Rick Huziak speaking	Rick Huziak	665-3392
Nov. 5-6	Saskatoon Hobby Show	Rick Huziak	665-3392
Nov. 11	North Taurid Meteor Peak	tbd	
Nov. 15	RASC Executive Meeting – 6:30 p.m., 175 Physics, U of S	tbd	
Nov. 16-17	Leonid Meteor Shower Peak	tbd	
Dec. 13	Geminid Meteor Shower Peak	tbd	
Dec. 13	NOTE EARLY DATE – RASC General Meeting – 7:30 p.m., 175 Physics, U of S	tbd	
Dec. 21-22	Ursid Meteor Shower Peak	tbd	



Presenting:

Monday, October 18, 7:30 PM — Room 175 Physics, U of S

Annual Election of Executive Members

The Alberta Star Party and the Northern Prairie StarFest
by Bill Hydromako

The Cypress Hills Dark Sky Preserve – It is now inter-provincial!
by Rick Huziak

Observing Meteors
by Tenho Tuomi

Note: There will be an Executive meeting at 6:30 p.m.

SKY BUYS & MIRROR CELLS

The Saskatoon Centre's Swap and Sale Page!

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

For Sale: 28mm - 2" Kellner eyepiece for telescopes of F6 or higher – 56 degree FOV. \$50 with a “try before you buy” guarantee! **Upgrade your 6x30 finder to this 9x50** made by Synta of China – \$50. Contact Ron Waldron at 382-9428.

A Loaner Presentation Slide Set for the Saskatoon Centre

For anyone who needs to do a public presentation, the Centre is now the proud owner of a “canned” slide set on general astronomy. About 40 slides covering naked eye and telescopic astronomy can be arranged to suit almost anything you’d like to talk about. Currently, the set does not have a script, but most slides are pretty self-explanatory. We’ll get a few different scripts together over time. To borrow this set, call Rick Huziak (665-3392). The set was made during a joint project between the RASC and the Brightwater Camp. In appreciation of our efforts in creating an astronomy program for the camp, Brightwater Director Marcia Klein paid for the duplicating of these slides and donated this set to the RASC.

Minutes of the EXECUTIVE MEETING

Sept 20, 2004, 6:30pm – Rm 175 Physics, U of S

1. Sleaford Open House – Set for Saturday Oct.16. Our club will help with the advertising. We will also have a barbeque at 4:30 for those who want to participate.
2. Sleaford Tour – Sciematics Conference will be held on Oct.22. They have requested at tour of our observatory. See Rick if you wish to help out.
3. Sleaford Expenses – The club has received a bill for yearly expenses from the U of S. Our share is \$530.07. A motion was made by Jim Young and seconded by Les Dickson and carried to pay this bill.
4. SSSP summary – given by Les Dickson. There were 212 registrants this year. There is a very positive feed back regarding many of the events and the whole starparty in general. People were especially pleased with the site for the wiener roast and with the schedule for the Saturday talks allowing for setup at the Meadows before dark. The wrap up discussion will be held on Sept.26 at Barb's at 3:00 p.m. Following this there will be a gastronomy supper at the Hard Wok Buffet at 5:00 p.m.
5. Financial Contribution – to the Meadows to install key switches on the lighting standards. This has been agreed to in principal. We need a firm estimate of the cost before any thing more concrete is done.
6. Total Lunar Eclipse – Oct.27. This will be a public event. Will meet at the U of S campus observatory to set up for this event.
7. Saskatoon Hobby Show – Nov.5. We have paid a fee of \$120.00 for a double booth. Event will take place on Friday and Saturday. We require lots of volunteers and will need to come up with a good display.
8. Elections – will be held at the October Meeting. Most positions will be open. Rick Huziak will resign as president and Ron Waldron will be nominated as a candidate for president.
9. Saskatchewan Centennial 2005 – there may be money available for some event associated with this.
10. Centre beginners' activities – such as Sleaford workshops and a beginner's half-hour prior to main meeting.
11. Distant Members Package – hand out materials will be sent to distant members who cannot attend our meetings.
12. Nominating Committee – will consist of Ron Waldron and Darrell Chatfield. They will phone members to see who is willing to be nominated for various positions on the executive.
13. Associate Memberships – there has been no action by National on this subject so far.
14. Membership Fees – will be increased to \$58.00.
15. Meeting adjourned at 7:30 p.m.

Minutes of the GENERAL MEETING

Sept 20, 2004, 7:30pm – Rm 175 Physics, U of S

1. Meeting called to order at 7:30 p.m.
2. Elections will be held at the October meeting for executive positions.
3. Sleaford Open House – will be held on Oct.16
4. Sleaford Tour – requested by organizers of the Sciematics Conference on Oct.22.
5. October Total Lunar Eclipse – will set up for the public on U of S campus at the observatory.
6. Saskatoon Hobby Show – our club will set up a display at this show which will be on Friday and Saturday Nov.5 and 6. Need lots of volunteers.
7. Messier award – presented to Larry Scott by Rick Huziak.
8. Cypress Hills area has been declared as Dark Sky Preserve.
9. Presentations:
 - The New Space West Initiative by Dr. Bill Brooks.
 - SSSP 2004 by Les Dickson
 - AAVSO Berkeley Spring Meeting – Rick Huziak.
10. Meeting Adjourned at 9:50 p.m.

BOOKS FOR SALE

by Bruce Brandell, Sales Coordinator

The following items are left from the Star Party and will be available at our first meeting on Sept. 20, '04 (the prices are the same as at the Star Party). Call 249-1119 or email <bruce_brandell@yahoo.com>

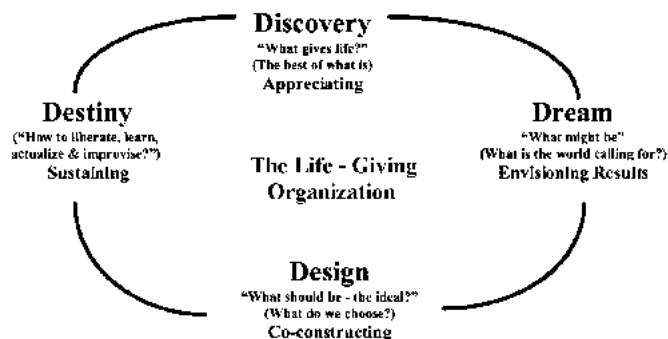
Title	Author	No. Avail.	Price Cdn\$
Calendar, RASC 2005	Rajiv Gupta, Editor	23	\$14.00
Calendar, Skywatcher 2005	Stan Shadick	10	\$15.00
Beginners Observer's Guide	Leo Enright	7	\$18.00
Skyways – Astronomy Handbook for Teachers	Mary L. Whitehorne	3	\$18.00
RASC Centennial Mug		9	\$ 8.00
Messier Cards, laminated	Sky Publishing	5	\$ 6.00
Messier Poster, colored	Sky Publishing	2	\$27.00
Milkyway Poster	Sky Publishing	2	\$32.00
Touring the Universe through Binoculars	Philip S. Harrington	1	\$58.00
The Moon Map	Sky Publishing	1	\$20.00
Pins SSSP 2004			\$ 5.00
Pins SSSP, other years			\$ 4.00

Newsletters from Other Centres... These are all the newsletters that have been received during the past month. Contact Ellen Dickson (249-1091) if you would like to borrow any of these or other newsletters from our library.

- July-Aug/04
- Stardust – June (Edmonton Centre) – “Book Reviews, How Not to be a Solar Astronomer”
 - Nova (Vancouver Centre) – “Newfoundland 2004 GA”, “The Beautiful Planet”
 - The Star Seeker (Calgary Centre) – “I’m Your Venus, I’m Your Fire – Venus Transit”
 - Skyward! (Montreal Centre [English]) – “Postcard to Saturn”
- Aug-Sep/04
- Scope (Toronto Centre) – “Venus Transit”, “Celebrating the Blackout”

Planning for the Future by Examining Our Successes in the Past

November's Meeting is a special meeting for all members of the Saskatoon Centre. At that meeting you will be participating in a process known as *Appreciative Inquiry*. This is a process that takes the energy of the "positive present" and uses it to build vision of a positive, desired future, one that is grounded in reality. It should help us to mobilize forces for change to turn that vision into reality.



Appreciative inquiry usually proceeds through four stages:

- **Discovering periods of excellence and achievement.** Through interviews and story-telling, participants remember significant past achievements and periods of excellence. When was their organization or community functioning at its best? What happened to make those periods of excellence possible? By telling stories, people identify and analyze the unique factors—such as leadership, relationships, technologies, core processes, structures, values, learning processes, external relations, or planning methods—that contributed to peak experiences.
- **Dreaming an ideal organization or community.** In this step people use past achievements to envisage a desired future. This aspect of appreciative inquiry is different from other vision-creating or planning methodologies because the images of the community's future that emerge are grounded in history, and as such represent compelling possibilities. In this sense

appreciative inquiry is both practical, in that it is based on the "positive present," and generative, in that it seeks to expand the potential of the organization or community.

- **Designing new structures and processes.** This stage is intended to be provocative—to develop, through consensus, concrete short- and long-term goals that will achieve the dream. Provocative propositions should stretch an organization or community, but they should also be achievable because they are based on past periods of excellence.
- **Delivering the dream.** In this stage, people act on their provocative propositions, establishing roles and responsibilities, developing strategies, forging institutional linkages and mobilizing resources to achieve their dream. New project plans will be developed and initiated, new relationships will be established and the group will proceed with vision and a renewed sense of purpose. As a result of the appreciative process, members will have a better understanding of the relevance of new initiatives to the long-term vision of our Centre.

On that evening, you will participate in the first three of these processes as the last one is achieved over time. The process will take approximately three hours and will result in a vision for our centre similar to a goals statement found in other organization.

To make this happen, there will be no executive meeting prior to the General Meeting and that meeting will begin at 7:00 pm. There can be no allowances made for late arrivals, as the process will be in full swing by 7:20 pm. We are currently investigating holding the meeting in a different room in the Physics Building, one that allows for movement of the participants and greater flexibility of the seating plan.

Please plan to be a part of this process and help influence the future direction of our Centre. Whether a first year member or a long-term member, you have a great deal to offer.

Ron Waldron will provide further information and questions about this process at the October Meeting.

Annual Elections – A Primer

Each year at the October General Meeting, elections are held for places on our Executive Council. Positions on the Executive are open to any member in good standing, and positions are nominated then elected by show of hands by the general membership. Although some positions are two-year terms (President & Vice-president), this year these positions are also up for grabs.

To expedite the elections this year, the Executive at the September meeting decide to create a Nominating Committee who would actively poll members for empty positions. The Nominating Committee will exist only until just before the election. If you have not received a telephone call by one of the Committee and would like to serve on the Executive, please contact any member of the Committee. We are: Ron Waldron (382-9428), Richard Huziak (665-3392) and Darrell Chatfield (374-9278). We would be delighted to nominate you for the position you desire. The position that most concerns us is that of Treasurer. We are looking for a member who has some (even a very little) bookkeeping experience. Even no experience is welcome if you are willing to do the job. Call us if you are interested, or know someone who could be. Executive positions that will be on the slate are:

- | | |
|----------------------|--------------------------------|
| President | SSSP Committee Coordinator |
| Vice-president | Membership Coordinator |
| (Past-president) | Sleaford Site Coordinator |
| Secretary | Fundraising Coordinator |
| Treasurer | Events Coordinator |
| National Council Rep | Centre Advertising Coordinator |
| Newsletter Editor | Councillor at Large |

Some other jobs are required to be done as well. These have been deemed as "jobs" that are NOT or no longer Executive positions so their administrators are not required to attend Executive meetings. Those who do these jobs will report directly to the President. All jobs are subject to possible reclassification as Executive positions as deemed necessary. If you would like an explanation of what each job or position entails, call a Nominating Committee member:

- | | |
|-------------------------------|-------------------------------|
| Librarian | Webmaster |
| Observing Coordinator | Centre Photographer/Archivist |
| Publication Sales Coordinator | Speaker's Coordinator |
| Meeting Room Coordinator | |

Upcoming Events – Please help out if you can

The Oct 16 Sleaford Open House (and pre-BBQ)

The Annual Sleaford Community Open House and Star Night will be held on Saturday, October 16. We always need member volunteers to man telescopes, displays and the snack bar. Depending on weather, we have had anywhere from 25 to 300 attendees from Saskatoon, Colonsay and area. If you can help out, please do. The event will be preceded by a Centre-member/family barbecue beginning at 4:30 pm. This will be a potluck event. Bring a small non-meat dish. A very special treat is that distant member from Lashburn, Fred Davis, has contributed 3 pounds of ground lamb, which will be made into delicious burgers. Thank you very much, Fred! We'll provide a few more beef burgers for everyone and will have cook-stoves on site. The starnight will begin once the public begins to arrive, about 7:30 pm. This event goes snow, rain or shine! Once we advertise, people will come, so please don't cancel your appearance due to inclement weather without letting us know first. Please RSVP to Rick Huziak (665-3392) if you plan to, or even think you might, help out. We need an approximate head-count to make sure we have enough meat and can cover the event otherwise. Bring your scope, some food and visit with your Centre members and the public.

The Oct 22 Sciematics Sleaford Tour

Similar to the Sleaford Open House, we will be conducting a starnight and tour of the Sleaford Observatory for signed-up participants of the Saskatchewan Math and Science Teachers Convention "Sciematics" on Friday, Oct. 22. This event also goes rain or shine, and begins 7:30 pm or 8:00 pm on October 22. Please volunteer and bring your scope to help us out! Sciematics participants are paying a nominal fee for this service. The tour will consist of a slide show, binocular starwalk, site tour and starnight. We will plan this event for all weather, and if the skies do not cooperate, we can do more presentations and play it by ear. Please also RSVP to Rick Huziak (665-3392) if you plan to help out. We are anticipating 10 or 15 attendees though it could easily be more.

The Total Eclipse of the Moon – Oct. 27

The moon will be turning bright red on October 27, and what better could we do than show the public? In stead of doing our

own star night, we will be helping the U of S Observatory staff handle the large crowds anticipated. According to the 2004 Observer's Handbook, here are the circumstances of the eclipse:

Penumbral eclipse begins (P1):	6:05:35 pm CST
Partial eclipse begins (U1):	7:14:25 pm CST
Total eclipse begins (U2):	8:23:28 pm CST
Greatest eclipse:	9:04:06 pm CST
Total eclipse ends (U3):	9:44:43 pm CST
Partial eclipse ends (U4):	10:53:44 pm CST
Penumbral eclipse ends (P4):	12:02:44 am CST

If you are going to help out, please arrive at the observatory by 7:00 pm. Bring your telescopes and tripod mounted binoculars and show up at the U of S Observatory. If you do not want to help out, and would rather view this eclipse privately, some members will be going to the Sleaford Observatory. Please RSVP Rick Huziak (665-3392) if you plan to help so we know we have enough people. If the observing conditions are good, we can expect several hundred people.

The Saskatoon Hobby Show Nov. 5 - 6

We are participating in this show after almost 25 years absence. The show goes from 4:00 pm to 10:00 pm on Friday, Nov. 5 and 9:00 am to 6:00 pm on Saturday, Nov. 6. All in all, it will be like a really big Astronomy Day display, but expect 50,000 people over the two days! With this large amount of traffic, we will be very busy, and will need a lot of volunteers to help man the booth. We could also use your telescopes for display, if you don't mind. Telescopes will be behind ropes for their protection, and will always be accompanied by a Centre member. We could use anything for wall decorations – posters and the like, that you might want to lend us. The more stuff we have on display, the better we will look. We will be able to sell books and calendars or similar merchandise, should we want to. We have to be set up by 3:00 pm on Friday, so could use any volunteers that could take part of Friday off work. The Hobby Show takes place at Trade Center Hall D, Exhibition Grounds. As always, we need a head-count of all who will help out, or if you have display material we can borrow. Please RSVP to Rick Huziak (665-3392) as soon as you can.

Wow! A Dark Sky Preserve Here in Saskatchewan

by Rick Huziak, Saskatchewan Light Pollution Abatement Committee

At this year's Saskatchewan Summer Star Party, an amazing event took place. We signed a declaration that made the Cypress Hills Inter-provincial Park (CHIPP) a real, honest-to-goodness Dark Sky Preserve! Quite frankly, this was a surprise to me as well, even though we (the Saskatchewan Light Pollution Abatement Committee) have been working towards this since February. About 10 days before the Star Party, Park Manager Brad Mason phoned me up and told me that we better get moving if we were to sign the declaration at the SSSP. I hadn't thought

much about this before, thinking more of a 2006 signing to coordinate with the Alberta side initiative. But Brad had another motive. The Canadian Parks Council Conference will be held at CHIPP on September 28th, and Brad wanted to have this signed declaration as an Ace in the Hole to propose all Saskatchewan Parks to become Dark Sky Preserves. This is an ambitious plan, but it matches the Alberta initiative as well.

The Calgary Light Pollution Committee, headed by Bob King and the Saskatchewan Light Pollution Abatement Committee, a

joint committee of the Regina and Saskatoon RASC Centres, have been working together to coordinate efforts with provincial park officials to get DSP status for the Cypress Hills on both sides of the border. The idea for a DSP has been in the works for a few years since we recognized a long time ago that the Cypress Hills was a unique location still far enough away from major civilization that it could have amazingly dark skies. After all, this is why we chose CHIPP as the site of the Saskatchewan Summer Star Party. Except for a few lights in the park, and scatter ranches around, the closest urban centre is the small town of Maple Creek, 30 kilometers away. But if we didn't work on preserving this unique environment, it easily could be lost. The Alberta side of the park is even more rustic, with almost no lights at all. At the SSSP'03, Darcy Kozoriz of the Regina Centre began more formal discussions of the possibility of a DSP with Brad Mason, and this past February, Brad, Rick Goett (Park Program Manager), Vance Petriew, Darcy and I met at the Provincial Parks Office in Swift Current. I gave a slide presentation on light pollution problems, and Brad and Rick immediately bought in. The concept of controlling nighttime lighting fit in precisely with Parks' philosophy of preservation, conservation and eco-tourism. We immediately formulated a working plan toward the goal of creating a CHIPP Dark Sky Preserve. In the intervening months, I also spoke at the Parks Eco-tourism conference at [Waneskewin](#) and the annual Park Manager's meeting in Regina, which reached more Park Managers, and better yet, Brad's boss. The Parks Director also bought in immediately, and commented that addressing light pollution was something that should easily be addressed in all parks. Brad and Rick returned to the park and immediately did a lighting survey. They have already begun changing out poor lighting and repositioning reflectors to eliminate up-light.

When the call for an SSSP signing came, I quickly drafted up the Declaration, and on Friday night at 7:30 p.m., we signed the Cypress Hills (Centre Block) Dark Sky Preserve into existence. The declaration is just the first step. Now that we have the basics out of the way, we have the real work to do. We have to create formal lighting guidelines for the park and work with the CHIPP Cottage Association and businesses within the park to get them on board. In the future, the Alberta side (CHIPP West Block) will sign their own declaration, and we are working on getting *all* Saskatchewan Parks to adopt Dark Sky policies. Our thoughts are that making all of this happen would be a wonderful present to ourselves for our 2005 provincial Centenary!

What does it mean to you? It means that the Cypress Hills will be protected from bad lighting practices in the future and we will be able to enjoy the darkness of the sky and the view of the Milky Way at the SSSP or any other night of the year. It means that one of our least recognized ecosystems – the night sky – will be there for our kids and future generations to enjoy! It also means that the animals will have better defined day and night. The current redevelopment of the Meadows campground, home

of the SSSP, will also follow dark sky rules. Although streetlights will be erected for the newly renovated campground, we will be able to switch them off during the star party. The park is also evaluating power usage, and is looking at turning off lighting in seasonally unused campgrounds.

Others have noticed this achievement. Having *Sky and Telescope* magazine at the star party will give us very good advertising. The Maple Creek Times newspaper and CBC Radio have already run article and interview about the DSP. And after the CPCC conference, we are pretty sure that things will only get better from here!



PHOTO BY GEORGE CHARPENTIER

I'd like to announce that as of Sept. 28, at about 10:00 p.m., a Declaration was signed at the Cypress Hills Centre Block (Sask) Ranger's Station that declared the Cypress Hill Centre Block, West Block (SK), Elkwater (AB) and Ft. Walsh National Historic Site (SK) are now the unified CYPRESS HILLS DARK SKY PRESERVE. The signing took place as part of the Canadian Parks Council Conference, where about 60 park managers from all across Canada and the northwest US were in attendance to witness this historical event. Representing the RASC were Vance Petriew (Regina), Rick Huziak (Saskatoon) and Bob King (Calgary). I gave a presentation on general light pollution issues and Bob then expanded the talk on what this means for the Cypress Hills Interprovincial Park. Follow up activities will include Press Release and then meetings in about 3 weeks to begin work on a long-term plan of how to reform and maintain lighting and LPA programming within these parks. An article will also be submitted to the Journal of the RASC immediately.

This expands the mandate set by the August 13 signing of the Declaration that created the CHIPP Centre Block DSP, signed at the 2004 Saskatchewan Summer Star Party. Park Managers Brad Mason (CHIPP SK), Rick Goett (CHIPP SK), Julie MacDougall (CHIPP AB) and David Rohatensky (Ft Walsh) are delighted at the new declaration and the future possibilities. Pictures of the Ceremony will appear on the Saskatchewan Light Pollution Abatement website.

The Chatfield Binocular Challenge – Part 3 *by Rick Huziak*

This is Part III of a 4-part series. None of us spend enough time under the stars with our binoculars. I use my binoculars to practice star hops before I attempt them in the telescope spotter. In past times, I had a spotter that had the same view as my scope (upside down and backward). That meant that I would do a star hop with binocs, then have to mentally flip the star hop to do it again in the scope's spotter. Once I began to do the bulk of my observing in the city (variable stars), I found that I was using my binoculars all the time to find faint stars that the eye simply cannot see over the brightness of streetlights. I then realized that it made infinitely more sense to have my spotter the same view as my binoculars so that I didn't have to do the mental flip anymore during the sometimes complex star hops. Once you go erect, you never go back! Enjoy the following objects in the darkest skies you can find. A darker sky makes binocular fields spectacular.

OPIUCHUS – M10 (NGC 6254) – Both M10 and M12 fit in the same binocular field, being approximately 4-degrees apart. M12 is slightly more condensed to the center than M10. Both are approximately 8th magnitude and 3' in diameter, so they are not easy if the sky is not that good. Other than these two globular clusters, the field is rather unspectacular.

OPIUCHUS – M12 (NGC 6218) – see M10 above

PEGASUS – M15 (NGC 7078) – This globular star cluster is a very small fuzzy spot, only about 2' in diameter. Because of its small size, it is easy to mistake this as a star, so it must be searched for carefully. Once found, it can be seen to be a faint blue spot, 8th magnitude and brighter to the middle. There is a 7th magnitude star a few minutes E and a 9th magnitude star barely NE. This is a rather empty binocular field.

PERSEUS – NGC 869/NGC 884 – NGC 884 is the E-most of these two famous Double Cluster members. In binoculars, this cluster contains about 10 stars. NGC 869 contains about 5 stars, but both clusters show a great deal of background fuzz. The brightest stars overlying the two clusters are light red in colour. These are the clusters' most evolved stars; red supergiants all a hundred times the size of the sun, and destined to become bright supernovae within the next few million years. All are small amplitude variable stars. Two parallel lines of brighter stars extend to the NW of NGC 864 for about 2-degrees, and end in a faint splotch of 30 or more stars of the 9th magnitude. This splotch is Trumpler 2 (Tr 2), a faint open cluster I once called "Huziak 2" when I discovered it in my early observing years. It wasn't plotted on my copy of Norton's Star Atlas. Tr 2 forms a distinct pattern that looks like a ">A". Straight E in the field, at the very edge, is a small 4' diameter fuzball surrounded by a few faint stars. This is yet another open star cluster, NGC 957. The entire area is full of mottled dark lanes in this spectacular Milky Way field.

PERSEUS – M34 (NGC 1034) – M34 is an easy cluster found about 1/2 way between the famous variable star Algol and beta Andromedae. It has a distinct dual shape, with an inner core of 7 or 8 stars of 8th to 9th magnitude with a bit of haze. Surrounding this is a circular coarse grouping of 15 stars of 8th to 11th magnitude, about 1/2 degree in diameter. The dual structure is interesting, but the field is otherwise unimpressive. All stars are white.

PISCIS – CIRCLET OF PISCES – This asterism is not a true cluster, but the coincident circlet of stars forms the west-most fish of the Piscis pair. You will need a wide binocular field to see this 6-degree wide oval of stars, slightly flat N to S. The circle consists of 7 main stars, magnitude 4 to 6. The brightest star is 4th magnitude yellow gamma Psc at the leading (W) edge. Many other stars, theta and iota and others may be yellow as well. Kappa Psc is a wide double consisting of red and blue components. At the east edge is a very red variable star, TX Psc, whose shallow range can be followed in binoculars.

PUPPIS – M47 (NGC 2422) – M47 is a coarse open star cluster of about 15 stars distinguishable from magnitude 8 to 10. It is very easily visible to the naked eye, being about 8' or 1/4 the diameter of the moon. About 1-degree N of M47 is a homogeneous ball of M46 (NGC 2437). Within M46, no stars are visible.

SAGITTARIUS – M22 (NGC 6656) – M22 is a 7th magnitude bright hazy spot, approximately 15' in diameter and slightly brighter to the middle. This globular star cluster is round in shape. To the SW is a triangle of stars and equidistant to the NE is another bright star. A fainter and small ball of light can be seen to the SW in the field. This is another globular cluster – M28 (NGC 6626).

SAGITTARIUS – M24 (IC 4715) – M24 is also known as the Sagittarius Star Cloud. It is very nice in 8x50's – a glowing patch of light 2-degrees x 3-degrees oriented NE – SW. The patch is overlapped by an oval grouping of approximately 30 stars of magnitude 7 to 9. Within the edges of the binocular field are several other fuzzy objects of interest: M23 (NGC 6494), M25 (IC 4725), NGC 6603, M18 (NGC 6613), M17 (NGC 6618) and the "Y" pattern of 13, 15, 16 & 17 Sgr. Note that M24 is misidentified as NGC 6603 in the 1st edition of Sky Atlas 2000, but this is corrected in the new version.

SCORPIUS – M4 (NGC 6121) – This globular cluster is a round glow that forms a flattened triangle with alpha (Antares) and sigma Scorpii. It is about 1/2-degree (the size of the moon!), slightly brighter to the center. The rest of the field is fairly barren. Note the reddish colour of Antares, also known as the "Son of Mars".



The Planets This Month, October 2004

by Murray D. Paulson, Edmonton Centre

The month starts off with Jupiter and Mars emerging from behind the sun whilst Mercury is rapidly heading in the opposite direction for it's superior conjunction with sun. So now all of the naked eye planets are residing in the morning sky. Of course Pluto, Neptune and Uranus are hanging around in the evening sky, but they are not the spectacle that the morning sky holds.

The beginning of October sees **Mercury** in conjunction with the sun, so we won't be seeing it in the evening skies for this month. Next month is different, but more on this later. You will just have to contend with daytime observations as you watch it come out from behind the sun on it's way back toward the evening sky.

At the beginning of October, **Venus** lies just east of Regulus, blazing away at magnitude -4.0. A quick look in an eyepiece will show it's swelling gibbous disk which subtends 15.5". It is amazing how bright Venus is despite its shrinking disk as it wheels around the sun. Venus always shines at Magnitude -4.0 plus or minus 0.4 magnitudes. Compare this to Mercury or Mars. Mercury will vary from Magnitude -1.9 to magnitude 5 as you go from superior to inferior conjunction! Mars can swing from Magnitude -2.8, like last year's opposition to Magnitude 1.7 as it is now, lost in the sun's glare. The thin waning crescent moon will join Venus on the morning of October 10th. Venus will be situated 4-1/2 degrees below the moon. The pair will make a pretty spectacle in the dawn sky. A little less than a month later, on November 5th, Venus will be in close conjunction with Jupiter in the morning sky. At this time they will be less than 1 degree apart. The pair will sit just south of Porrima, or gamma Virginis. For all of you familiar with the namesake of the Lamplighter library, this conjunction will commemorate Father Lucian Kemble's birthday. He would have been 82 years old.

Well, we have mentioned **Jupiter**, but it will be in the dawn twilight for most of October, not what I would consider worth setting up a telescope for. On the other hand, the close conjunction with Venus will be worth getting up for. In a medium power eyepiece, you will be able to see the disks of both planets. Even without a telescope it will be worthy view to witness the dazzling pair in the morning sky.

Saturn starts off the month at Magnitude 0.1 and sits between the constellations of Gemini and Cancer. It rises just after midnight, but by the beginning of November it will be making it's appearance by 10:20 p.m. At this time, Saturn will be quite prominent, shining at magnitude 0.0 and it will show a 19" disk

in the eyepiece. The inclination of Saturn's rings has decreased quite a bit since last year, and they are at 21.7 degrees now. You can now see the ball of the planet projecting beyond the rings as you view it in the eyepiece. This view of the inclination of Saturn's rings is in part due to our vantage point in our orbit and that the rings inclination is decreasing. By the time of opposition in January, the inclination will actually be at 22.9 degrees. This signals the tilting back down of Saturn's rings that will see them at shallower and shallower inclinations until they are edge on in 4 years time.

A last note to round things out. There is a **lunar eclipse** coming on October 27. The moon rises at 5:40 p.m. and at 6:06 p.m. local time it enters the Earth's Penumbra. Within the hour the penumbra should become visible, and at 7:14 p.m. the moon enters the much darker Umbra. The umbral part of the eclipse is the main event and totality starts at 8:23 p.m. with mid eclipse at 9:04. The moon comes out of totality at 9:45 p.m. and the moon slips out from under the umbra at 10:54 p.m. The penumbra should fade from view by 11:25 p.m. and the official end of the eclipse will happen at 12:03. This year's event is the mirror image of last year's event, with the moon traversing the upper part of the earth's shadow. (Last year it was the lower part of the shadow.) If you plan to photograph the eclipse, shoot a mixture of short and long exposures during the partial phases, and shoot relatively long exposures during the totality phase. Last year my best shots of totality were the 4 to 8 second exposures done on Kodak 400 asa film. The camera was set up with a telextender to get f 18. In the partial phases, I was shooting anywhere from 1/500 sec to 4 sec!

What's that film stuff you say? Well, if you try the digital route, check your shots as you are going and do lots of experimentation. I do recommend using the lowest asa setting on the camera that produces an acceptable tradeoff between noise and exposure time. Also use an equatorial if at all possible. Remember that with a fixed tripod that the longest exposure that you can use without too much smearing of the image is given by the expression $T_{max}=500/\text{focal length of lens}$. *Good luck and clear skies!*

It is GEOSYNC FLARE Month by Rick Huziak

October is Geosynchronous Satellite Flare Month. Get out there and find these things! You'll be surprised at their flaring activity. They are a hoot to find & photograph. During October, and peaking about October 20, the solar panels of these gigungous satellites reflect the sun in such a manner that they flare from 13th magnitude all the way up to 4th magnitude. So some become naked eye for a half-hour or so throughout the night. Gord Sarty has created a web page of my geosynchronous satellite photos off of our Saskatoon Centre webpage. All photos were taken at Sleaford and are B&W scans off of colour slides. One photo is reproduced with this article, showing flaring Direct Broadcast satellites. To find geosyncs on any night, find a star straight south at a declination of about 7 degrees 40 minutes south of the celestial equator, and point your scope there. Turn off your drive. If you are lucky, you will see a

geosync stationary in the field. If not, pan left or right a degree and wait. Repeat as required. Geosyncs are placed every approximately 1 degree apart. Geosyncs stay put, whereas the stars float by. Eight-inch scopes are required for all months except October.

A fun trick to do with these satellites is to impress your friends with the "quality of your new, ultra-thin Poncet drive" for your Newtonian. Set your scope on Good Old Mother Earth. Find some geosync satellites, then call a friend over to check out the superb tracking. They'll see these "stars" "tracking perfectly" in the field, but the fun comes when they try to find the Poncet. Works only once, then they generally kick you when they realize what you did to them. The dead give-away is that sooner or later, stars float through the field behind the satellites.

<http://duke.usask.ca/~ges125/rasc/geosyncs/Geosyncs.htm>

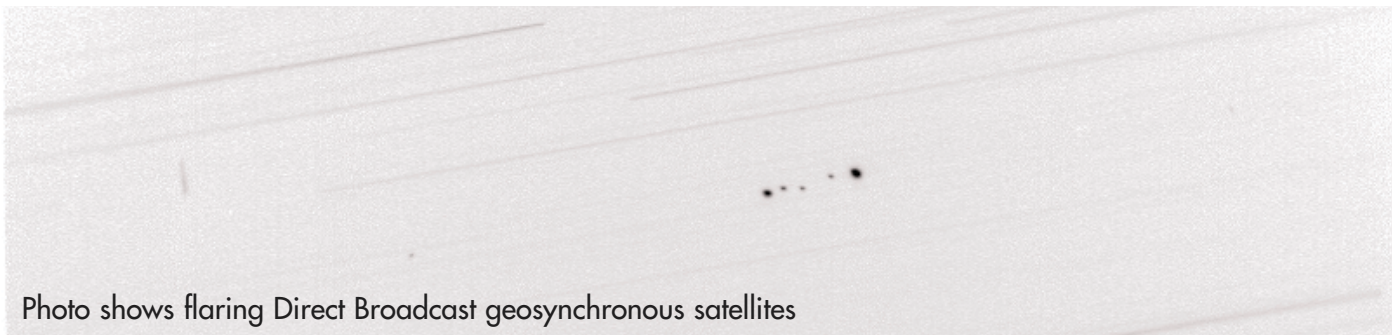


Photo shows flaring Direct Broadcast geosynchronous satellites



RASC Observing Group Notes

by Brent Burlingham, Observing Group Coordinator

It was a very quiet month for the Observing Group – there wasn't a single reported change in observing totals.

Congratulations once again to Larry Scott who received his Messier certificate at the September meeting. We're hoping that George Charpentier's Messier certificate and Tenho Tuomi's FNGC certificate will arrive for presentation at the October meeting.

I will be stepping down as the Observing Group Coordinator at the October meeting. I've really enjoyed the position, but just don't have the time necessary to do what I consider to be a good job of organizing, promoting and reporting on the group's observing activities. I'd like to thank everyone for their observing efforts, and Tenho Tuomi for his eagle-eye editing and patient acceptance of my continual misspelling of his name.

Upcoming Events:

October 27 – Total Lunar Eclipse. Plans are to gather outside the U. of S. Observatory prior at dusk. Bring your scopes/binoculars/selves for this public outreach activity.

November 5-6 – Saskatoon Hobby Show, Exhibition Grounds. Details to follow – a great opportunity to pass on information about RASC Saskatoon and astronomy to the general public.

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 observing you'd like to share with the club.

Clear Skies!

Brent Burlingham, Observing Group Coordinator

On-line Messier List – For those who'd like an electronic Messier list (with DSS images), check out:

<http://www.seds.org/billa/dssm/messier.html>

On-line Finest NGC List – For those who'd like an electronic FNGC list, check out the Edmonton Centre's version at:

<http://www.edmontonrasc.com/catalog.html>

On-line Herschel 400 List – For those who'd like an electronic Herschel 400 list, check out the official site at:

<http://www.astroleague.org/al/obsclubs/herschel/hers400.html>