

# Saskatoon Skies

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

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Number 4



I thought you might want to know what it takes to get this stuff out each month! Details on page 6.

Photograph by Brian Friesen.

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## Saskatoon Centre

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## Membership?

Regular - \$52.00 per year  
 Youth - \$27.50 per year

### It's never too late to join!

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, Bob Christie, or renew through the National Office and let Bob 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 2002*
- *The Journal of the RASC* (bi-monthly)
- *SkyNews* magazine (bi-monthly)
- use of the Centre library
- discounts to **Sky & Telescope** magazine
- discounts of Sky Publishing merchandise
- discounts to Firefly Books
- free, no cost, no obligation, 3-month temporary membership if you don't want to join right now!

### U of S Observatory Hours

The U of S Observatory is open to the general public every Saturday in April from 8:30 p.m. to 10:30 p.m. Admission is free. The observatory is located on campus, one block north of the Wiggins Avenue and College Drive entrance. On clear evenings visitors may look through the 6-inch refractor to the moon, star clusters, Jupiter, Saturn, and other exciting astronomical objects. For further information, phone the recorded Astronomy Information Line at 966-6429.

## About this Newsletter

Newsletter Editor - Richard Huziak

Copy - Brian Friesen & WBM

Collate – Brian Friesen, Bob Christie, Les & Ellen Dickson, Sandy Ferguson, Walter Essar

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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 .GIFs, .TIFs .JPGs or similar. Send e-mail submissions to the editor at <[huziak@SEDSsystems.ca](mailto:huziak@SEDSsystems.ca)>. Please send articles in "generic" formats, with standard grammatical formatting appreciated - 5 spaces at the beginning of paragraphs, two spaces after periods, one space after commas. 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 to Raise Some Cash By Darrell Chatfield

In January I announced a 'bring-it-to-the-meeting' bottle drive to do some fundraising for the Centre. If you did not bring your empties last time, bring them to the April meeting. 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.

### RASC Calendar Happenings

Date (2002) *	Event	Contact	Telephone
<b>Apr. 12 &amp; 13</b>	<b>Messier Marathon Nights at Sleaford</b>	Rick Huziak	665-3392
Apr. 15	<b>Executive Meeting</b> , Room 8313, City Hospital, 6:30 p.m.	Les Dickson	249-1091
<b>Apr. 15</b>	<b>General Meeting</b> , Room 8313, City Hospital, 7:30 p.m., speaker Darrell Chatfield – Eyepieces & the GMAW Crew Adventures	Les Dickson	249-1091
<b>Apr. 20</b>	<b>Astronomy Day Display</b> , Lawson Heights Mall - 8:30 a.m. – 5:00 p.m.	Mike Stephens	682-5989
<b>Apr. 20</b>	<b>Astronomy Gastronomy</b> – at a restaurant at Lawson Hts – 5:30 p.m.	Mike Stephens	682-5989
<b>Apr. 20</b>	<b>Astronomy Day Starnight</b> , location: Archibald Park - dusk	Mike Stephens	682-5989
Apr. 21/22	<b>Lyrid Meteor Peak</b>	Rick Huziak	665-3392
May 13	<b>General Meeting</b> , Room 8313, City Hospital, 7:30 p.m., <b>The StarLab Planetarium</b> – toured by Ron Waldron – <b>NOTE EARLY DATE</b>	Les Dickson	249-1091
Jun. 17	<b>General Meeting</b> , Room 8313, City Hospital, 7:30 p.m., speaker tbd	Les Dickson	249-1091
Jun. 30	<b>Last day of EARLY registration for SSSP 2002</b>	Les Dickson	249-1091
Aug. 3 - 11	<b>Mount Kobau Star Party</b>	Rick Huziak	665-3392
<b>Aug. 9 - 11</b>	<b>Saskatchewan Summer Star Party – Cypress Hills</b>	Les Dickson	249-1091
Aug. 12 -13	<b>Perseid Meteor Shower Peak</b>	Rick Huziak	665-3392
Sep. 5 – 8 ??	<b>Alberta Star Party – Eccles Ranch near Caroline, AB</b>	Rick Huziak	665-3392

\* If the DATE is **bold**, there is more about this event within in this newsletter.

### Notice of the General Meeting of the Saskatoon Centre

**Monday, April 15, 2002 at 7:30 p.m.**

**Room 8313 City Hospital**

**Presenting:**

#### ***Eyepieces – the Good, the Bad and the Ugly – Darrell Chatfield***

My talk will cover such things as focal length, eye relief, field of view, along with some of the different types of eyepiece designs that are available today. I hope you will come away armed with enough information to buy an eyepiece with confidence.

#### ***The George Moores Astronomy Workshop – We Did It! – by the Gang***

Check out this workshop in pictures – presented by the members who attended.

### Saskatoon Centre Books 4 Sale

The Saskatoon Centre has a number of Firefly Books left over from SSSP sales, and these are now available to general members to purchase at discount rates! There are only one or two copies remaining of the following titles. Items marked \*\* are selling *at cost*. Contact Debbie Anderson at 242-8854 or [bazoo.inc@shaw.ca](mailto:bazoo.inc@shaw.ca). Prices include GST, shipping and handling.

- Binocular Astronomy (hardcover) - \$37.00
- Astrophotography (G.N.Patterson) - \$8.00\*\*
- Exploring the Sky by Day - \$7.00
- Cambridge Star Atlas - \$35.00
- RASC 2002 Calendars - \$8.00\*\*



- SkyWatchers Calendar - \$8.00\*\*
    - RASC Stickers - \$0.50
    - Other Worlds - \$7.00
    - Extraterrestrials - \$8.00
- All prices are reduced.  
Prices marked \*\* are reduced to clear.

## Sky Buys and Mirror Cells

### The Saskatoon Centre's Swap and Sale Page!

**Wanted:** I'm looking for a **6mm eyepiece** – most any type will do. Call Gord Sarty at 966-2321 (work).

**For Sale:** *Astronomy*, by Menzel. 320pp. color plates-\$15.00; *Burnham's Celestial Handbook*, 3-vol set- \$30.00; *Sky Catalog 2000-Vol 2*, by Sinnott-\$30.00; *Stars and Planets* by Pasachoff, 578pp. paperback, up to year 2010, color plates and charts- \$20.00; **Brass lined trunk**-will carry an 8" or 10" SCT.-\$75.00; **Accessory case** c/w high density foam, 18"x13"x8" - \$20.00; **Parts tool kit**, 16"x8"x7" - \$10.00; **9mm Kellner eyepiece**- \$20.00. Please note: all items are either in good or excellent condition. Please call Darrell at 374-9278 for details.

**Wanted: Piggyback camera mount** to fit C8. **1-1/4 LPR filter**, such as Lumicon or Orion. Call Darrell at 374-9278.

**Wanted: 25mm Eyepiece:** Orthoscopic, Kellner or Plossl in almost any condition. Call Rick Huziak at 665-3392.

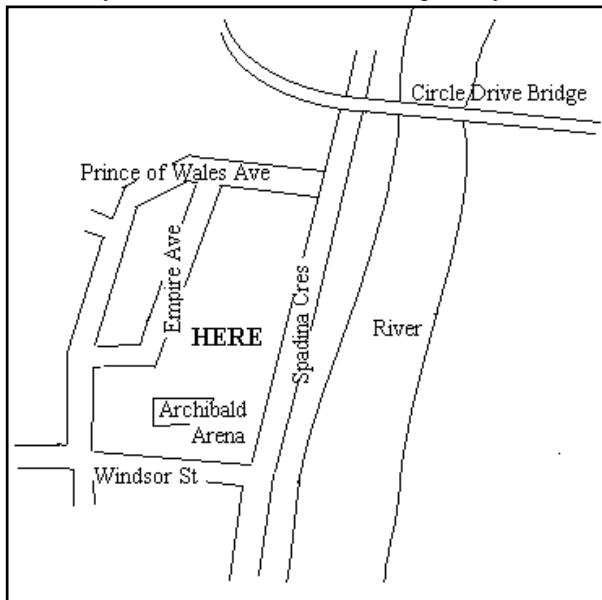
**For Sale:** *The Messier Album* by John H. Mallas & Evered Kreimer, 1978 - \$4.00; *Observational Astronomy for Amateurs* by J. B. Sedgwick, 1971 - \$2.00; *New Horizons in Amateur Astronomy* by G. Fjernedal, 1989 - \$8.00; *Astronomy* (textbook) by F. M. Branley et al., 1975 - \$4.00; *Astronomy: Fundamentals and Frontiers* (textbook) by R. Jastrow, 1972 - \$4.00. Contact Les Dickson at 249-1091.

***The Messier Club and Sleaford Page will return NEXT month. I haven't had any updates from anyone.***

## Astronomy Day April 20

by Les Dickson

Please remember Astronomy Day is on Saturday, April 20<sup>th</sup> at the Mall at Lawson Heights near the food court. We always need volunteers, and especially like new



members to come out and help with the display, bring out their 'scopes, and answer questions. If you can't help out, make sure you visit the display sometime during the day

to see what we are doing! If you can help, we normally set up at about 8:30 a.m. and take turns manning the display until just before the stores close. You can contribute a few hours of work or the entire day. It's fun!

Following the display, the group will have an *Astronomy Gastronomy* at a restaurant at or near the Lawson Heights Mall (location to be decided during the display).

This year, we are planning to set up our 'scopes for the public star night within the city to encourage greater attendance. With so many planets visible this season, we thought the disadvantages of being in the city with all its light pollution would not be a hindrance. We will hold the star-night at George D. Archibald Memorial Park on the east side of Spadina Crescent East, south of the Circle Drive bridge. We will be in the park closer to the Archibald Arena. There is a small gravel parking lot in the middle of the park. We should begin setting up at about 7:30 p.m. and get observing the moon and planets by 8:30 p.m. and until the public disappears.

## Last Chance for the Messier Marathon

call Richard Huziak [huziak@sedsystems.ca](mailto:huziak@sedsystems.ca)  
ph. 665-3392

The last weekend for a Messier Marathon run will be the weekend of April 12<sup>th</sup> & 13<sup>th</sup>. You will have to take your chances that someone else will be out on the 12<sup>th</sup>, but I will be out guaranteed all night on the 13<sup>th</sup> if the sky is clear. So come out and see if you can catch 109 of 110 Messiers in one night!

## **Saskatchewan Summer Star Party – 2002 Edition**

**by Les Dickson**

Once again, the Saskatoon and Regina Centres of the RASC are hosting the Saskatchewan Summer Star Party at the Cypress Hills Inter-provincial Park, 32 km S of Maple Creek. The party takes place August 9-11. This year's Father Lucian Kemble Memorial Lecture speaker is comet discoverer Vance Petriew, who promises an exciting multi-media presentation on his comet discovery during last year's SSSP. (We saw a short version of this talk at the recent GM Astronomy Workshop).

This is the main event that the Saskatoon Centre organizes each year, and each year the same dozen or so members give of their time and energies to give their fellow astronomers a weekend to remember. We welcome and desperately need the input and help of all of our members. Even if you aren't a frequent observer, consider coming down for the weekend for a short vacation, enjoy the park amenities, attend the daytime events, and get a little observing in. If you don't really want to observe, the organizing committee would appreciate your help providing night-time traffic control and security.

Registration rates for those booking before July 1, 2002 are as follows (all rates are in Canadian dollars): Single: \$17; Couple: \$28; Family: \$34. After July 1, all prices increase \$10. Banquet tickets are: Adults, \$17; Youths 4-11 yr, \$10; Children 3 yr and under, free. T-shirts (\$17) and golf shirts (\$30) will be available; these have to be pre-ordered and pre-paid. A limited number of pins and crests will also be available for purchase at the party, prices to be announced.

For more information and a downloadable information sheet and registration form, visit our web site at <http://prana.usask.ca/~rasc/sssp02.html>. You can also call Les or Ellen Dickson at (306) 249-1091.

## **MINUTES FOR RASC EXECUTIVE MEETING**

**March 18, 2002, CITY HOSPITAL Room 8313**

**Recorded by Al Hartridge, Secretary**

1. Approval of the minutes of the executive meeting of Jan. 2002. Moved so by Darrell Chatfield and seconded by Rick Huziak and carried.
2. Treasure's Report: present balance is \$12,646.33.
3. Fundraising: Darrell reports that bottles are still trickling in. He is still trying to raise funds from private parties and will approach the potash mines again.
4. Membership: we are up to 80 paid up members.
5. Sleaford: a discussion was held regarding how to fix the binding problem with the 10-ft. dome.
6. Partnership Agreement: The RASC has signed the agreement and it has been signed by U of S Physics department and is now in the works at the U of S.
7. Astronomy Day: will be held on April 20<sup>th</sup>. Archibald Park will probably be the site of the public star night. The display will be at Lawson Heights.
8. Star Nights: Rick Huziak needs help with a school class star night on Mar.21<sup>st</sup> and also on Mar.25<sup>th</sup> or Mar.26<sup>th</sup> in Langham. Any volunteers please contact him.
9. New Banner for SSSP: Jim Young discussed materials for making a new banner for the next SSSP.
10. Meeting adjourned at 7:30 p.m.

## **MINUTES FOR RASC GENERAL MEETING**

**March 18, 2002, CITY HOSPITAL Room 8313**

**Recorded by Al Hartridge, Secretary**

1. Presentations:
  - Les Dickson - "*The Clear Sky Clocks*" Website by Attila Danko.
  - Rick Huziak – *Light Pollution*.
  - Darrell Chatfield – *Primer on Eyepieces*.
  - Paul Campbell - *George Moores Astronomy Workshop*
2. Approval of minutes of Feb.18, 2002 of the general meeting. Moved by Darrell and seconded by Mike and carried.
3. Fundraising: Darrell Chatfield is still willing to take bottles and will also collect Canadian Tire money.
4. Treasure's Report: balance at present is \$12,646.33.
5. Membership: at present we have 80 paid members.
6. Sleaford: Bill Hydomako is still working on the dome rotation problem. There is still considerable binding.
7. Star Nights: Rick is looking for volunteers to help him with star nights on Mar.21<sup>st</sup> and on Mar.25<sup>th</sup>. Please contact him if you can help.
8. Meeting Adjourned at 9:30 p.m.

## The Edmonton 2002 George Moores Astronomy Workshop – What a Crew!

by Rick Huziak

For those of you who can't make it to the April General Meeting, I will give you the rundown of a very successful George Moores Astronomy Workshop (GMAW), held April 5 – 7 at the St. John's Boys School just SW of Stony Plain, Alberta. This event is an RASC workshop & teachers' seminar put on by the Edmonton Centre. Although 96 people were registered, 88 attended at the final count.

We all arrived on Friday evening around suppertime; "we-all" being a very large Saskatoon contingent consisting of Les and Ellen Dickson, Al, Sharon and Graham Hartridge, Bill and Maryanne Hydomako, and myself and my daughter, Amy. We were fed supper, but due to cloudy skies the evening's entertainment was an astrophotography session put on by one of the Edmonton members. This was followed by a midnight snack. Many of us stayed up and yacked until 2:30 or 3:00 a.m.

The main event began on Saturday, with a breakfast and a late brunch. The talks began with Ivan Semeniuk from the Discovery Channel. Ivan gave a great presentation on the current state of scientific discovery on the 5 planets that will be visible together later this month. After Ivan's seminar, we split into groups and went to other seminars put on by Edmonton members, including seminars on the Sounds of the Night Sky, Meteorites, Astrophotography, Telescope Workshop, Variable Stars, Teacher's Session and others. We were able to attend whatever two seminars we wanted to see that after noon.

Supper was an excellent banquet of roast beast, Yorkshire pud, roast potatoes and salads. The Edmonton Centre also did a good job of finding door prizes, and the Saskatoon Centre cleaned up on these, with Bill, Maryanne, Les, Sharon, Al and me winning one each! After supper, Vance Petriew gave the keynote address on the discovery of Comet Petriew and how he had handled the media coverage that lasted months afterward. This was followed by yet another midnight lunch, but no observing since it was now snowing! To kill time, Murray Paulson set up a pupil-measuring station using a video camera and an infrared lamp to measure how far our pupils opened up after dark-adapting. Mine opened to an average 7 mm. Alister Ling was top observing dog with 8 mm peepers! Socializing and yacking continued to better than 3:30 a.m.

Sunday morning was leisurely. A late breakfast was served, and then we all packed up our things and said goodbye to our Edmonton hosts. I'd like to thank the organizers, Paul Campbell, Sherry McLeod, Donna-Lee May, Harris Christian, Cathy McKinnon and a host of others that made this event a great success! I'm also pleased that the Saskatoon Centre took such an interest in this event, returning the favour that Edmonton does for us at the SSSP!

## To Scare Off the Next

by Rick Huziak

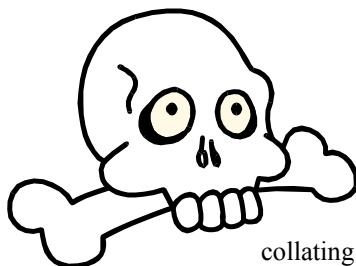
I'd like first to apologize for a fairly ratty-looking new-format issue for those of you that received February's *Saskatoon Skies* by mail. Some copies were underexposed and others were overexposed, making all of the illustrations not as intended. The galaxy pictures on the cover and back page were really quite nice, as those who received web copies may attest.

Newsletter editing has always been a large task for those who take it on, and I am not sure that new technology makes it any easier.

To explain, maybe some of you would like to know what it takes to get a newsletter out each month. It's quite

a process; enough to scare off future editors, but it's lots of fun anyway!

Monthly newsletter editing begins about the 25th of the month with general e-mailings or phone calls to those who are most likely to contribute articles or who expressed interest over the last month in contributing material. This gives them time to write if they have to. At around the beginning of the month, I check the calendar and decide by which dates the newsletter must be edited, copied and distributed. By the end of the first week of the month, all the articles should be in. They rarely are, but I can start anyway.



## Editor

I then call Brian Friesen and arrange a convenient copying and collating time with him; hopefully this is the Monday before the General Meeting, but if not, we pick a Sunday or Tuesday. We need to get the newsletter in the mail with enough time to make home delivery before the meeting date, but not so early that the newsletter gets misplaced, and the meeting forgotten.

Brian makes sure that we have a copier available at WBM Office Systems, and he gets back to me with the news. We rely on WBM having a *Risograph* copier

available, since it is very inexpensive to operate. However, if all of the Riso's are out on demonstration, I have to make alternate arrangements to copy the newsletter, generally commercially, on a normal photocopier. It is important for me to know what machine will be used to copy the newsletter, since each copier treats printed figures and graphics very differently, and the resolution and print style of the master copy has to be consciously altered depending on the machine! Brian and I also make sure that our monthly consumables are not short, which include copy paper, staples, and envelopes.

At the end of the first week, I sit down for an evening and accumulate all of the articles I have received. I extract them from emails, attachments, the RASCLIST, or hardcopies, and do a rough edit on these, placing them into a common text file. Mostly, I have to remove unwanted line and page-breaks, and remove almost all formatting that is inherent in each submission. If figures are attached, I extract the figures and assure that they are of sufficient contrast that they will print on whatever copier will be used. For star images, these are converted to negative views for better contrast in printing. I also open up last month's newsletter, and begin stripping out all old and non-reusable material and resave the file to a new monthly template, remembering to change all of the dates, headers, and volume numbers. All of this takes 2 to 3 hours.

I usually then take a break and begin phone calls or e-mails. I call Sandy Ferguson, Walter Essar, Les and Ellen Dickson, and Bob Christie, and let them know the date of the copy and collating session. This is the standard work crew who does an amazing job putting the newsletter together from copy to the mailing. If any of these people cannot come, I usually phone a few other members to try to solicit help. I also call anyone who has not yet submitted their monthly articles and begin begging for these to arrive as soon as possible. I also call that month's speaker to get a CV and a summary of the talk. Then I call anyone with an ad to see if they would

like it extended or altered. With Les, we discuss which club activities need to be reported on in this newsletter.

When Bob gets his call, he jumps into action. As the Membership Coordinator, he assures that the monthly membership list is up to date (and with revolving memberships, this is a big job)! He and I also check that last minute Temporary members have jumped either onto or off of the 3-month mailing list. Bob and I also check to see if any member has changed their newsletter preference from a mailed copy to an electronic copy. We also assure that the multitudes of email address changes have been updated, since new addresses seem to change monthly for half of the club; changing more often than I change my underwear! Bob also checks to see which regular members have renewed and which ones haven't. Bob then updates the master membership list, and prints return address labels, membership address labels, subscription labels and labels for the complimentary copies that will be mailed out. Bob also prepares a personalized promotional letter for each temporary member that will be stuffed with the newsletters. Bob brings all of this material to the copy session.

Once this is out of the way, I pick another afternoon and begin the newsletter editing proper. The text file is inserted into the now barren template, and is rough formatted to discover rough article lengths and where figures will go. Everything is formatted to a certain font size, spelling and grammar checked and both margins justified. All of the monthly articles such as the *Sleaford Page* and the *Observer's Club* page are either updated or rewritten. The meeting notice is also updated and the U of S Observatory gets a call to their phone hotline to see what the opening hours are for the next few months. Articles are then reformatted so that they better fill pages and I use graphics to fill white space within the articles. Keeping articles ending at the bottom of pages sure helps cutting and pasting them around the newsletter! This takes most of an afternoon.

*Then the roof caves in.* I almost always discover that I am short material, and have several decisions to make; generally to call members in a panic and beg for the written word, roam the Internet for articles or other RASC Centre on-line newsletters for material, or decide to fill the white space myself. The last choice is often done, but this usually adds hours to the editing time. Sometimes, in sheer desperation and a sweaty panic, I stare hopelessly into the "spare article bin", but I can always see the empty bottom!

Figures and photos are a major issue during the edit. Often articles are not accompanied by pictures or figures and I have to either find these on the Internet, or create them myself, or scan images or photos sent in. Now that we are presenting an on-line newsletter, I am also finding that the figures become very cumbersome, since each one adds a half-megabyte or so to the newsletter size, making it very difficult to download for the electronic subscribers. I then have to open the figures in a graphics editor and then resave them to other file formats that do not take up as much memory, keeping in mind the problem of how they will print on which copier and what they will look like on-line. In the olden days, I could use scissors and tape to speed up graphics editing, but now that the newsletter is on-line it has to be 100% electronic. Contrary to Techno-geek belief, it takes about twice as long to produce a newsletter with a computer than with scissors and tape! I then usually discover that I have forgotten about the cover illustration and go on a panic search for this. The final task is to update the *Table of Contents* with the new article names, authors and page numbers.

The entire final edit takes 7 to 9 hours by the time I hit "print" on the laser printer that makes the master copy. Much cussing occurs at this time since every save or print command brings me closer to

a crash, formatting error or the *Blue Screen of Death!* Even more cussing occurs when I discover that going from Word version to Word version, fonts change – thus your Greek-looking header in the February issue - or was a different printer driver or the pdf converter responsible? Hummm....

In 1979, I bought my first computer - an Apple, which had a wonderful text editor called *Apple Works* which could do booklet style pagination. Twenty-three years later, Microsoft Word cannot properly paginate a booklet that will be photocopied, nor can it print a master copy anywhere other than in the center of the page. Since (until this issue) the page size was 5-1/2 inches by 8-1/2 inches, my software would print the image centrally on an 8-1/2" x 11" page sheet. Back to the tape and scissors! I'd then go to the paper cutter, and cut each 5x8 master out of the 8x11 sheet. I then use scotch tape to side-by side tape page 16 to page 1, page 2 to page 15, 14 to 3, 4 to 13, 12 to 5, 6 to 11, 10 to 7 and 8 to 9 to produce the 8-1/2 inch by 14 inch copy masters. This final printing to master is generally done the day before, or the day of, the scheduled copying so that we can throw very last minute information into the newsletter if required. Going to full 8-1/2" x 11" pages now makes this part easier.

I then return to the electronic file and email it to Gord Sarty, who then converts it to pdf format and posts it to the Saskatoon Centre web page. (I will do the pdf conversions as soon as the new Centre computer gets out of the virtual hospital!)

On copy day, I chase around to buy whatever supplies are short (envelopes from the Superstore and paper & staples from Staples), and usually remember to show up with the master

copies. Walter Essar has been helping with the supplier shopping recently – a welcome break!

The first task on copy day is to figure out how many copies are required by adding membership, temps, complimentary issues, subscriptions, and give-a-ways together and subtracting the expired regular and temp members and those who have electronically subscribed. We apply our combined knowledge of Calculus to come up with a meaningful number! Brian then takes the masters and disappears with one helper to the Risograph machine to copy the masters into two-sided pages. During this process, the rest of the crew gets down to business. We do a last check on the labels list, and then put return and address labels onto about 65 envelopes. When the copied pages arrive from Brian, they are collated, stapled and folded twice. Copies are put into the envelopes crease up to ease the machine closure that occurs later. Bob also stuffs the temporary membership envelopes separately since they will be over-weight and have to be segregated from the main batch. The newsletters are then sorted into domestic and foreign (we do two mailings to the US). They are further sorted into ones that will be mailed and ones that will be hand-delivered. The envelopes are then taken in 3 separate piles to the franking machine where they are post-marked and automatically sealed. One of us checks to ensure the seals hold, then they are stuffed in a brown paper bag, ready to mail. Either Walter or I take this bag to the post office later that night. Two years of practice has this process down to a fine art, and we can now copy, collate, fold, stuff, frank and seal 65 newsletters in just under one

hour - if the machines don't break down!

Picking Monday as a copy day is not an unconscious decision. Unconscious happens soon after! Right across from WBM is Earl's Restaurant, and Monday is Margarita night! The newsletter crew will often drop their moral standards right into the nearest gutter, walk across the street and partake in the fine art of half-price Margarita mulling. It's easy to sample several when they are that cheap and feature great flavours such as "Sunset on Saturn"! How could an astronomer resist? You're also quite lucky that Walter remembers to mail the newsletters later on in the evening!

The day after the copying is done, if I am not too "unconscious" myself, I check with Gord Sarty to see if the newsletter is converted and posted. I then prepare a short file with the URL pathway to the newsletter and the Club Calendar dates so that electronic recipients are aware of the dates of coming activities even if they haven't had time to read or print the newsletter. Then I check that my newsletter electronic subscription address book is up to date, and send out an electronic notice to these subscribers, and handle inevitable bounces of wrong addresses which occur every month. Approximately two weeks after the first action, this month's newsletter is done! Enjoy! The next one starts in two weeks, and I am short of material already! Please remember that the next meeting happens EARLY and so does the newsletter!

### International Space Station Evening Passes – April 12 to May 20\*

By Les Dickson (from [www.heavens-above.com](http://www.heavens-above.com))

Date	Mag	Starts			Max. Altitude			Ends		
		Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.
<a href="#">12 Apr</a>	1.4	21:52:31	10	W	21:54:51	19	SW	21:55:26	18	SSW
<a href="#">13 Apr</a>	0.8	20:54:00	10	W	20:56:50	30	SSW	20:59:33	11	SE
<a href="#">14 Apr</a>	2.0	21:32:37	10	WSW	21:34:08	13	SW	21:35:38	10	S
<a href="#">15 Apr</a>	1.4	20:33:30	10	W	20:36:00	21	SSW	20:38:28	10	SSE

\* There are no evening passes between 16 April and May 20.

## Great Comets!

By Rick Huziak

Since Christmas, three new and bright amateur comets have been discovered. Two of these are now visible in the sky. (The third is behind the sun). If you haven't seen Comet Ikeya-Zhang, then you are mostly blind! This comet currently is 4<sup>th</sup> magnitude in the NW sky after sunset and sports a tail 10 degrees long! The other comet will require binoculars or a small telescope. On May 1st, Comet Ikeya-Zhang and Comet Snyder-Murakami will be only 3 degrees apart, though 5.5 magnitudes different in brightness!

**Comet C/2002 C1 (Ikeya-Zhang)**

Date	RA	Decl	Mag
Apr 11	0009.5	+5000	4.1
Apr 16	2320.0	+5550	4.4
Apr 21	2209.4	+6007	4.7
Apr 26	2039.8	+6126	5.0
May 1	1910.1	+5852	5.3
May 6	1759.7	+5310	5.7
May 11	1710.7	+4557	6.1

**Comet C/2002 E2 (Snyder-Murakami)**

Date	RA	Decl	Mag
Apr 11	1922.0	+3425	10.3
Apr 16	1924.0	+4033	10.4
Apr 21	1925.9	+4627	10.5
Apr 26	1926.1	+5203	10.6
May 1	1924.9	+5714	10.8
May 6	1921.7	+6159	11.0
May 11	1951.8	+6616	11.2

## Oval Activity on Jupiter – A Jupiter Primer

From Geoff Gaherty, Toronto Centre [ggaherty@ROGERS.COM](mailto:ggaherty@ROGERS.COM) (taken from the RASCLIST)

Patrice Scattolin wrote: "Ok, so that I don't look like a complete idiot at cocktail parties: what is the "south temperate oval BA" on Jupiter? I take it it's not the Great Red Spot (GRS), what does the interactions we are looking at supposed to look like. And how long does this type of alert good?"

There were originally three South Temperate Belt (STB) ovals: BC, DE, and FA. The weird names result from them first being identified as gaps in three dark sections of the belt, known (more sensibly) as AB, CD, and EF. These were first identified by Elmer Reese around 1960, and have been followed ever since. A few years ago, BC and FA drifted into each other, merged, and became known as BA. In the past as one or of the other of these ovals have drifted past the Great Red Spot (GRS), located just north of them, there has been interaction between the oval and the Red Spot. The merged BA is now approaching the Red Spot and, in Maurizio's latest image, appears to be developing a dark wisp across it, perhaps beginning to split.

These ovals have only been around for about forty years, unlike the Red Spot, which has been around for three hundred, but they are the second most long-lived features in Jupiter's atmosphere. They are beautifully shown in some of these images made by Patrick Chevalley in Geneva (author of *Cartes du Ciel*) in the past two weeks:

<http://www.astrosurf.com/astropc/images/ju2001/jup01.html>

This page is a bit slow to load, but really worthwhile, as Patrick is getting absolutely fabulous results with very basic equipment: a Chinese 6" Newtonian and a web cam. He has software that projects his images onto a Mercator producing strip maps of the whole planet. In these maps, BA can be seen as an oval about half the size of the Red Spot, just below and to the left of the Red Spot; in his disk images, it's above and to the right of the Spot. It's right on the central meridian of the image for Jan 13 at 00:42.

No one knows for sure what will happen or on what time scale, but this whole region bears watching on any possible occasion, as does the area of "barge" (dark condensation) activity in the north part of the North Equatorial Belt at the same longitude as the Red Spot. Myself, I've been enjoying all this vicariously, since I haven't been able to make serious observations of Jupiter since mid-December, thanks to Earth's North Temperate Belt!

## The Planets This Month - April

By Murray D. Paulson, Edmonton Centre, RASC

Over the next month, Mercury will swing out to greatest eastern elongation, which occurs on May 4th. It will sit 2-1/2 degrees above the ecliptic. This will be an evening apparition and it will be way more favorable than the last one! The sun sets at 9:15 p.m. and Mercury will be visible as a magnitude 0.9 fleck in the twilight glare until it sets 2 hours later. Nights to mark on your calendar: April 29, Mercury 1 degree below the Pleiades; May 3 to 10, tight planetary conjunction of Mars, Venus and Saturn with Mercury nearby. The closest grouping occurs on May 5th - 6th. On the night of the 6th, you could see three planets in a very low power eyepiece field. The 3 planets will fit in a 3-degree field of view. You will need a short focal length scope and a wide field eyepiece: something in the 800mm and shorter focal length and a 40mm Wide Field 35 Panoptic or 31mm Nagler.

Over the month of April, Venus continues its march up the sky heading for May's planetary conjunction. It will remain exactly the same brightness and will only expand slightly to 11.54" and a somewhat gibbous disk. Over the month of April, Venus chases Mars up the ecliptic toward their date in Taurus. This will be a conjunction to take note of. On May 10<sup>th</sup>, Mars will be 20 minutes of arc below Venus. You should be able to get the pair in a medium to high power telescope field. Think of the perspective, Mars an almost full disk 5 magnitudes fainter than Venus with its slightly gibbous disk. Both planets are sitting in their orbital locations on the far side of the sun.

### *The End Is Near!!!*

The end of April and the beginning of May will be a bonus for planet watchers: all the visible planets in one small section of the sky. And as a bonus, the moon will join them on May 14. I have yet to see the doom and gloom prediction banners on the tabloids, but give them time. Or maybe the Olympics have been keeping the writers of the tabloids busy. It may be more likely that they have yet to notice. As we all suspect, they might not be the brightest of the bunch.

## Iridium Satellite Passes > Mag -2 – April 12 to May 20

By Les Dickson (from [www.heavens-above.com](http://www.heavens-above.com))

Date	Local Time	Intensity (Mag)	Alt.	Azimuth	Distance to flare centre	Satellite
18 Apr	21:52:35	-6	15°	353° (N)	9.9 km (W)	Iridium 12
19 Apr	22:53:43	-3	20°	36° (NE)	25.5 km (E)	Iridium 63
20 Apr	23:56:08	-6	28°	239° (WSW)	12.4 km (E)	Iridium 15
21 Apr	22:50:40	-7	25°	39° (NE)	6.2 km (E)	Iridium 72
24 Apr	22:42:44	-7	30°	43° (NE)	6.7 km (E)	Iridium 74
24 Apr	23:41:23	-5	27°	248° (WSW)	15.5 km (E)	Iridium 38
27 Apr	22:33:50	-7	35°	47° (NE)	0.9 km (W)	Iridium 68
27 Apr	23:32:32	-7	25°	255° (WSW)	7.8 km (W)	Iridium 81
02 May	23:19:40	-3	21°	267° (W)	41.6 km (W)	Iridium 40
03 May	23:14:46	-7	22°	269° (W)	0.2 km (W)	Iridium 17
05 May	22:04:12	-8	48°	53° (NE)	2.3 km (W)	Iridium 70
05 May	23:11:23	-6	20°	274° (W)	14.5 km (W)	Iridium 42
07 May	23:09:27	-4	17°	279° (W)	32.3 km (W)	Iridium 38
08 May	23:17:16	-3	17°	24° (NNE)	23.5 km (W)	Iridium 22
09 May	23:06:07	-6	15°	284° (WNW)	9.2 km (E)	Iridium 80
09 May	23:12:44	-5	18°	25° (NNE)	11.3 km (E)	Iridium 25
10 May	21:43:14	-8	55°	56° (NE)	2.0 km (W)	Iridium 66
10 May	22:17:52	-5	11°	349° (N)	13.1 km (E)	Iridium 40
10 May	23:10:07	-4	13°	288° (WNW)	42.9 km (W)	Iridium 38
11 May	23:12:23	-4	12°	292° (WNW)	49.1 km (W)	Iridium 42
12 May	21:57:45	-3	15°	347° (NNW)	29.2 km (W)	Iridium 81
12 May	23:04:55	-6	24°	31° (NNE)	9.1 km (E)	Iridium 76
15 May	21:22:12	-5	63°	59° (ENE)	8.2 km (W)	Iridium 75
15 May	21:28:30	-3	23°	345° (NNW)	21.2 km (E)	Iridium 80
15 May	22:56:00	-7	29°	35° (NE)	4.4 km (E)	Iridium 23
16 May	21:23:13	-4	23°	344° (NNW)	13.2 km (W)	Iridium 81
17 May	21:16:14	-4	25°	343° (NNW)	13.7 km (W)	Iridium 43