

# Saskatoon Skies

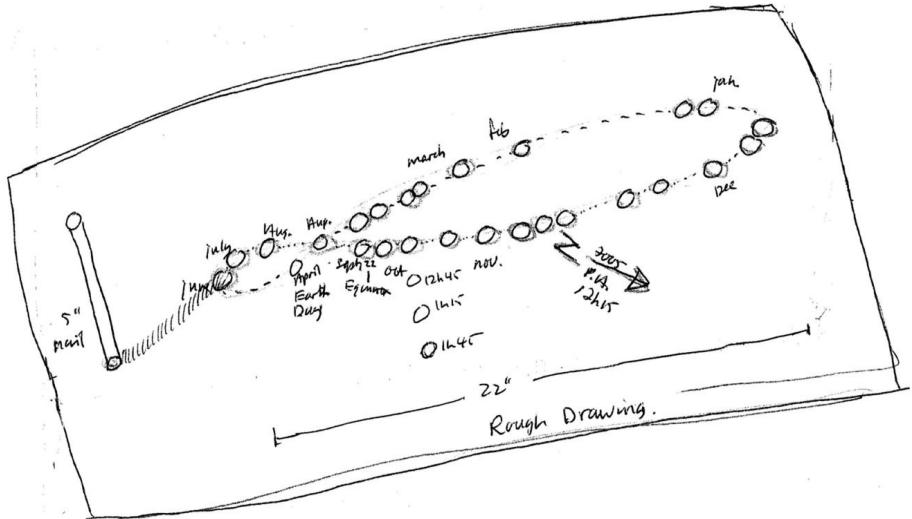
## **The Newsletter of the Saskatoon Centre of the Royal Astronomical Society of Canada**

Vol. 39  
No. 2  
February  
2008

# AN ANALEMMA BY A LOCAL ASTRONOMER

An Analemma is the figure that the sun traces in the sky when viewed at the same time each day of the year. Many of us have admired pictures of them but have not found the time or effort needed to produce one. Kathleen Houston found a different way of making one. Read more about it inside.

*Drawing by Kathleen Houston*



## In This Issue:

Membership Information; Bottle Drive; Officers of the Centre	2
U of S Observatory Hours; Light Pollution Abatement Website	2
Calendar of Events; Minutes of the Executive Meeting	3
Minutes of the General Meeting; Making a Charitable Donation	3
Meeting Announcement; Books For Sale	4
Notice of Special Meeting of Members	5
Centre Bylaws	5
Saskatoon Centre Wins Best Display Award at GA 2007	7
Creating a Relationship with the Sky – The Sun's Analemma and Drawing with Light (Part 2)	8
The Planets this Month; Walter Essar 1944 - 2008	9
The Messier, H-400 & H-400II, FNGC, Bino & EtU Club	10
Observer Group Notes	10



## Saskatoon Centre

P.O. Box 317, RPO University  
Saskatoon, SK S7N 4J8

## **WEBSITE:**

[www.usask.ca/psychology/sarty/rasc](http://www.usask.ca/psychology/sarty/rasc)

**E-MAIL:** stonesw7@sasktel.net

**TELEPHONE:** (306) 857-4707

# AMENDMENTS, AWARDS, & AMAZING ART

# MEMBERSHIP? IT'S NEVER TOO LATE TO JOIN!

**Regular: \$65.00 /year   Youth: \$34.25 /year   Lifetime: \$1100**

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

- rent the Centre's Telescopes  
<http://www.usask.ca/psychology/sarty/rasc/telescopes.html>
- discounts to Sky & Telescope Magazine\*
- free, no-cost, no-obligation, 3-month temporary membership if you don't want to join right now!

\* New subscription or renewal of Sky & Telescope? Send new info or renewal notice, plus credit card # to Norma Jensen, 128 - 4th Street East, Saskatoon, SK S7H 1H8, or email her at [njensen@scs.sk.ca](mailto:njensen@scs.sk.ca).

## U OF S OBSERVATORY

The U of S Observatory is open to the general public every Saturday of the year. Admission is free. The observatory is located on campus, one block north of the Wiggins Avenue and College Drive entrance. On clear nights, visitors may look through the vintage 6-inch and tour several displays. Current events are recorded on the Astronomy Information Line at 966-6429.

### Observatory Hours:

January-February	7:30-9:30 pm
March	8:30-10:30 pm
April	9:30-11:30 pm
May-July	10:00-11:30 pm
August	9:30-11:30 pm
September	8:30-10:30 pm
October-December	7:30-9:30 pm

## SASKATOON CENTRE'S MAIN OFFICERS:

**President** – Garry Stone, 857-4707

**Secretary** – Al Hartridge, 373-0034

**Vice-President** – Barb Wright, 249-1990

**Treasurer** – Norma Jensen, 244-7360

## BOTTLE DRIVE & CANADIAN TIRE \$

by Darrell Chatfield



If you cannot make it to a meeting but would like to contribute, your Canadian Tire money please call me at 374-9278.

**Newsletter Editors** – Tenho Tuomi, Ken Maher **Copy & Collate**– Les & Ellen Dickson **Labels & Temps** – Mike Clancy **Web Posting** – Gord Sarty

Saskatoon Skies is published monthly by the Saskatoon Centre of the RASC. Distribution is approximately 100 copies per issue. Saskatoon Skies welcomes unsolicited articles, sketches, photographs, cartoons, and other astronomy or space science 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](mailto: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.

# RASC CALENDAR OF EVENTS

<b>Feb 11</b>	<b>RASC Executive Meeting</b> - 6:30 pm., 175 Physics, U of S.	Garry Stone	857-4707
<b>Feb 11</b>	<b>RASC General Meeting</b> - 7:30 pm., 175 Physics, U of S.	Garry Stone	857-4707
<b>Total Lunar Eclipse - 9:01 to 9:51 p.m.</b>			
<b>Mar 1</b>	<b>Observers Group</b> - 7:00 pm., Sleaford Observatory	Larry Scott	934-5801
<b>Mar 17</b>	<b>RASC Executive Meeting</b> - 6:30 pm., 175 Physics, U of S.	Garry Stone	857-4707
<b>Mar 17</b>	<b>RASC General Meeting</b> - 7:30 pm., 175 Physics, U of S.	Garry Stone	857-4707
<b>Mar 29</b>	<b>Messier Marathon Warm-Up</b> , Sleaford Observatory	Larry Scott	934-5801
<b>Apr 5</b>	<b>Messier Marathon</b> , Sleaford Observatory	Larry Scott	934-5801
<b>Apr 21</b>	<b>RASC Executive Meeting</b> - 6:30 pm., 175 Physics, U of S.	Garry Stone	857-4707
<b>Apr 21</b>	<b>RASC General Meeting</b> - 7:30 pm., 175 Physics, U of S.	Garry Stone	857-4707
<b>Apr 25</b>	<b>Observers Group</b> - 8:30 pm., Sleaford Observatory	Larry Scott	934-5801
<b>May 9</b>	<b>Astronomy Day</b> , Lakeview Civic Centre	Jeff Swick	373-3902
<b>May 10</b>	<b>Astronomy Day</b> , Farmer's Market & Beaver Creek	Jeff Swick	373-3902
<b>May 12</b>	<b>RASC Executive Meeting</b> - 6:30 pm., 175 Physics, U of S.	Garry Stone	857-4707
<b>May 12</b>	<b>RASC General Meeting</b> - 7:30 pm., 175 Physics, U of S.	Garry Stone	857-4707
<b>Jun 9</b>	<b>RASC Executive Meeting</b> - 6:30 pm., 175 Physics, U of S.	Garry Stone	857-4707
<b>Jun 9</b>	<b>RASC General Meeting</b> - 7:30 pm., 175 Physics, U of S.	Garry Stone	857-4707



Celestron NexStar SE  
& Celestron CPC



Sky-Watcher EQ5  
100mm ED PRO  
\$1999.95

**TeleVue** 

10% off all TeleVue Scopes

127is - \$6,287.36  
101is - \$3,587.36

 Megrez 110 Pkg  
2" diagonal, 28mm  
Uwan 2" eyepiece,  
tube rings.  
\$1499.95

 Celestron Ultima DX binoculars  
Special Pricing  
8 x 56 - \$189.95  
9 x 63 - \$199.95

Join us  
Feb. 20 -7 PM to 10 PM  
Lunar Eclipse Viewing

**All-Star Telescope**  
31020 Hwy. 2A, Didsbury, AB  
1-866-310-8844  
[www.All-StarTelescope.com](http://www.All-StarTelescope.com)  
(test drive equipment under dark skies)

## To Make a Charitable donation to RASC Saskatoon Centre

write a cheque out to RASC and place on the bottom that the donation is to the Saskatoon centre – a tax receipt will be issued in December of that year . Mail or give to the current treasurer.

## Minutes of the Executive Meeting, January 21, 2008 by Jim Young

1. Meeting called to order 18:36
2. Moved by Barb Wright, Seconded by Tenho Tuomi to approve the November minutes as published. Approved
3. A complete financial report will be given at the February meeting.
4. Moved by Tenho Tuomi that \$200 dollars be paid to Bill Hydomako for the parts to repair the snow blower used at the dark site. The total could be more if more parts are needed. Approved
5. Jeff Swick gave a short report on the plans for Astronomy Day.
6. The Centre has received a plaque from National for the best Centre Display at the GA in Calgary.
7. It is with sadness that the passing of member Walter Essar was tabled.
8. Meeting adjourned 18:55.

## Minutes of the General Meeting, January 21, 2008 by Jim Young

1. Meeting called to order 19:31.
2. Moved by Mike Clancy, Seconded by Ellen Dickson to approve the November minutes as published. Approved
3. Jeff Swick gave a brief outline of the upcoming Astronomy Day and the Messier Marathon.
4. Mike Clancy reported on the membership. At present there are 83 regular members of which 1 is a youth member, 76 are regular members, and 3 are associate members and 3 are life members.
5. Les Dickson gave a report on what is happening at National. His complete report is printed in the January newsletter.
6. Rick Huziak reported on the activities of the light pollution committee. He would like to remind everyone that with the change of government that a lot of the work is just like starting over. So it would be a good idea to write letters directed to the government members who are now in charge of the departments.
7. After a short discussion it was decided to leave the meeting day as the third Monday of the month. If the third Monday falls on a holiday then the meeting will be held on the second Monday in that month.
8. Meeting adjourned 20:33.

# MONDAY, FEBRUARY 11 7:30 PM ROOM 175, U OF S

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

## • Roving the Dominion Astrophysical Observatory,

by Rick Huziak

*In December, I had the opportunity to visit the DAO in Victoria for a second time to run the 1.82 metre Plaskett telescope for 10 nights on Gord Sarty's High Mass X-ray Binary project. I also took a lot of digital movies that show how the telescope works and what astronomers actually do during an observing run.*



## IMPORTANT NOTICES TO ALL MEMBERS

The February meeting is on the 2nd Monday since the 3rd Monday is a holiday. The March meeting will be back to the 3rd Monday of the month.

The March meeting will have a vote on bylaw amendments to bring us up to date, and for effective running of your RASC centre. It is important that you come to this meeting for we need a quorum to pass those amendments.

## BOOKS FOR SALE

All items will be available at our next meeting or call 249-1119,  
or email [breeves@sasktel.net](mailto:breeves@sasktel.net)

<i>Title</i>	<i>Author</i>	<i>#Avail</i>	<i>Price</i>	<i>Title</i>	<i>Author</i>	<i>#Avail</i>	<i>Price</i>		
RASC 2008	RASC	1	\$14.00	Field Map of the Moon	Sky & Telescope	8	\$17.00		
RASC 2007	RASC	3	\$5.00	Lunar 100 Card	Sky & Telescope	1	\$10.00		
Skywatcher's 08	S. Shadick	3	\$18.00	Mars Observer's Guide	N. Bone	2	\$14.00		
Skywatcher's 07	S. Shadick	6	\$5.00	Deep Sky Observer's Guide	N. Bone	1	\$14.00		
Skywatcher's 06	S. Shadick	1	\$2.00	Stars	Zim, Baker & Chartrand	1	\$10.00		
<b>Books</b>									
The Backyard Astronomer's Guide	Dickinson & Dyer	2	\$40.00	Exploring the Night Sky	T. Dickinson	11	\$9.50		
The Beginner's Observer's Guide	L. Enright	4	\$19.00	Exploring the Sky by Day	T. Dickinson	10	\$9.50		
Observer's Handbook 2006	RASC	5	\$5.00	Patterns in the Sky	K. Hewitt-White	3	\$19.50		
Observer's Handbook 2005	RASC	1	\$2.00	Pocket Sky Atlas	R. Sinnott	3	\$27.00		
Practical Astronomy	S. Dunlop	4	\$14.00	Binocular Highlights	G. Seronik	3	\$28.00		
Summer Stargazing	T. Dickinson	5	\$18.00	Night Sky Star Wheel	Sky Publishing	1	\$19.00		
Celestial Sampler	S. French	2	\$28.00	S&T Star Wheel	Sky & Telescope	1	\$22.00		
Firefly Astronomy Dictionary	Firefly	2	\$14.00	Messier Card (laminated)	Sky & Telescope	1	\$6.00		
Firefly Planisphere	Firefly	2	\$19.00	Messier Card (not laminated)	Sky & Telescope	9	\$5.00		
Night Sky Atlas	R. Scagell	3	\$27.00	Deep-Sky Wonders	W. Houston	2	\$24.50		
Stargazing with a Telescope	R. Scagell	2	\$14.00	The Messier Objects	S.J. O'Meara	1	\$39.00		
Beautiful Universe	Sky & Telescope	2	\$13.00	Skyways – Astronomy Handbook for Teachers	D.H. Levy	1	\$48.00		
There Once was a Sky Full of Stars	B. Crelin & A. Ziner	10	\$22.00	Saskatoon's Stone	M.L. Whitehorne	1	\$16.00		
Space 50 Years and Counting	Sky & Telescope	1	\$13.00	<b>Miscellaneous</b>					
The Moon Observer's Guide	P. Grego	4	\$14.00	RASC Centennial Mug		2	\$5.00		
Isabelle Williamson Lunar Observing Program	RASC	7	\$10.00	RASC Stickers, blue or white		lots	\$1.00		
The Sun Observer's Guide	T. Spence	3	\$14.00	SSSP 2001 Pin (Summer Triangle)		13	\$2.00		
Moon Map (laminated)	Sky & Telescope	7	\$10.00	SSSP 2002 Pin (Comet)		24	\$2.00		
				SSSP 2006 Pin (10)		46	\$4.00		
				SSSP 2007 Pin (DSP)		35	\$5.00		

THE ROYAL ASTRONOMICAL SOCIETY OF CANADA SASKATOON CENTRE INCORPORATED

# NOTICE OF SPECIAL MEETING OF MEMBERS

TAKE NOTICE that a special meeting of the Members of The Royal Astronomical Society of Canada Saskatoon Centre Incorporated (the "Centre") will be held at Room 175 of the Physics Building on the University of Saskatchewan campus, in the City of Saskatoon, Province of Saskatchewan, on Monday, the 17<sup>th</sup> day of March, 2008, at the hour of 7:30 o'clock in the afternoon for the purposes of:

- i) presenting, discussing, considering and passing the hereinafter mentioned resolution changing the bylaws and articles of the Centre to provide for the two new membership classes of associate membership and temporary membership and to better conform to the constitution and bylaws of the Royal Astronomical Society of Canada (the Society), as such resolution may be amended by the Members present at such meeting, if at all, or as thereafter may be amended and approved by National Council; and
- ii) transacting such further and other business as may properly come before the meeting or any adjournment thereof.

## RESOLUTION:

### NOW THEREFORE BE IT RESOLVED THAT:

- i) the existing bylaws of the Centre be deleted in their entirety and those set out in Schedule A hereto, as may be amended and approved by National Council, be substituted therefor; and
- ii) the articles of the Centre be amended as necessary to provide for the two new membership classes of associate membership and temporary membership and for any other pertinent information set out in the said bylaws; and
- iii) any one of the Secretary or the Treasurer of the Centre, is hereby authorized to make, do, execute and deliver, all such acts, applications or things, instruments, documents, directions and writings, (including without limitation, execution on behalf of the Centre of Articles of Amendment or Restated Articles and all other forms, instruments and declarations required pursuant to the Act), as she in her discretion may consider necessary or desirable or as her legal advisors may recommend to give full effect to this resolution."

## SCHEDULE "A"

### Bylaws of The Royal Astronomical Society of Canada Saskatoon Centre Incorporated

#### Article I

##### Members

1. Membership in The Royal Astronomical Society of Canada Saskatoon Centre Incorporated (hereinafter the Centre) shall be open to all persons who are interested in astronomy and there shall be five classes of membership (no member can belong to more than one class), namely:

- (a) Ordinary Member: is a person who:
  - i) has submitted the required application and been approved by Centre Council;
  - ii) has paid the annual ordinary membership fee of the Royal Astronomical Society of Canada (hereinafter the "Society") and the annual ordinary surcharge of the Centre as determined from time to time; and
  - iii) is in good standing with the Society and the Centre.

Ordinary Members shall have full voting privileges.

- (b) Youth Member: is a person who:
  - i) has submitted the required application and been approved by Centre Council;
  - ii) has paid the annual youth membership fee

of the Society and the annual youth surcharge of the Centre as determined from time to time;

iii) has satisfied Centre Council that he or she is less than twenty-one years of age at the time of such payment; and

iv) is in good standing with the Society and the Centre.

Youth Members shall have full voting privileges.

(c) Life Member: is an Ordinary Member or Youth Member in good standing who has paid the annual life membership fee of the Society and the life surcharge of the Centre as determined from time to time. Life Membership may also be conferred upon any member by the Society in recognition of meritorious service to the Society. Life Members shall pay no annual Society membership fee but shall pay an annual life surcharge of the Centre as determined by Centre Council from time to time. Life Members shall have full voting privileges.

(d) Associate Member: is a person who:

- i) has submitted the required application and been approved by Centre Council;
- ii) has paid the annual associate fee of the Centre as determined from time to time;
- iii) has satisfied Centre Council that he or she is the spouse or child of an Ordinary Member or Life Member in good standing; and
- iv) is him or herself in good standing with the Centre.

Associate Members shall not be members of the Society but, as Centre members, shall have full Centre privileges and benefits including, without limitation, the use (in common with all other members) of the Centre resources and facilities, coverage under the Centre insurance policies as stipulated therein and the right to run for Centre office. Notwithstanding the foregoing, Associate Members shall not be entitled to receive any Centre or Society publications, nor shall they have any Society privileges, nor shall they be entitled to vote upon any matter designated as a Society matter by Centre Council and nor shall they be entitled to run for or hold any Centre office, any position on Centre Council or any office mandated by the Society from time to time. The purpose of associate membership is to encourage and facilitate family participation in the Centre organization and its activities without imposing the financial burden of Society membership for each member of the family.

(e) Temporary Member: a person who:

- i) has submitted the required application and been approved by Centre Council;
- ii) has paid the temporary membership fee of the Centre, if any, as determined from time to time; and
- iv) is in good standing with the Centre.

A Temporary Member shall be one non-renewable period of time as set by Centre Council from time to time not to exceed six months. Temporary Members shall not be members of the Society but, as Centre members, shall have full Centre privileges and benefits including, without limitation, the use (in common with all other members) of the Centre resources and facilities, coverage under the Centre insurance policies as stipulated therein and the right to run for Centre office. Notwithstanding the foregoing, Temporary Members shall not be entitled to receive any Society publications, nor shall they have any Society privileges, nor shall they be entitled to vote upon any matter designated as a Society matter by Centre Council and nor shall they be entitled to run for or hold any Centre office, any position on Centre Council or any office mandated by the Society from time to time. The purpose of temporary membership is to facilitate membership promotion, by permitting prospective members of the Society to become familiar with the operation of and the rights and services offered by the Centre without being required immediately to become members of the Society.

2. Annual Society membership fees shall be paid by the respective member as required by the Society and the annual Centre surcharges as set by Centre Council from time to time shall be due and payable at the same time and along with the annual Society membership fees.

3. Ordinary, youth and life membership in the Centre shall also constitute the recipient thereof a member of the Society and entitle such member to all the rights and benefits associated therewith.

4. Application for membership shall be made to the Secretary of the Centre who, upon being satisfied that all the requirements for membership have been complied with, shall, at the earliest reasonable date submit the name of the applicant to the Centre Council for approval.

## Article II

### Centre Council

- The management, control, government and administration of the property and affairs of the Centre shall be vested in and exercised by the Centre Council.
- The Centre Council shall consist of sixteen officers who shall be elected by the general membership of the Centre. The said Council members shall be as follows:
  1. President
  2. Vice-President
  3. Past President
  4. Newsletter Coeditor
  5. Newsletter Coeditor
  6. Secretary
  7. Treasurer
  8. National Council Representative;
  9. Events Coordinator
  10. Fundraising Coordinator
  11. Membership Coordinator
  12. Observing Coordinator
  13. Sleaford Site Coordinator
  14. SSSP Coordinator
  15. Councilor at Large
  16. Councilor at Large

Centre Council members shall be considered directors of the Centre and shall have all the rights and responsibilities of directors prescribed by law.

- The Centre Council shall have power to fill any vacancy therein by election of any other member of the Centre who shall hold the vacant office for the unexpired time of the officer so replaced.
- The Centre Council shall, at least once a year, give a full and complete report of its activities at a meeting of the Centre.

## Article III

### Officers

- Except for the President, Vice-President and Past President, the officers of the Centre shall be elected at the annual meeting of the Centre and shall hold their office for a term of one year. The Vice-President shall be elected for a two year term. Provided the person holding the office of Vice-President is a member in good standing, then immediately after the expiry of such term, that person shall automatically hold the office of President for the next two ensuing years and thereafter, provided such person is still in good standing, that person shall automatically hold the office of Past President for the next two ensuing years.
- To be eligible for election to any office of the Centre the member must be in good standing and be of the full age of 21 years.
- The duties of the officers shall be:
  - (a) President - to carry out all those duties and functions ordinarily incident to the said office in particular to call and preside at all regular and special meetings of the Centre and Centre Council and to call special meetings on written request of seven members of the Centre.

- (b) Vice-President - to perform the duties of the President in the event of his absence, resignation or inability to perform his duties.
- (c) Secretary - to carry out all those duties and functions ordinarily incident to that office and in particular to make and maintain accurate records of all proceeding, meetings and transactions of the Centre, Centre Council or other committee of the Centre; to attend to all correspondence of the Centre; to make such reports as are required to the Secretary of the Society and to issue membership cards to the members of the Centre.
- (d) Treasurer - to carry out all those duties and functions ordinarily incident to that office and in particular to be responsible for the financial activities of the Centre; to remit to the Treasurer of the Society the appropriate portion of membership fees as is more particularly set out in the bylaws of the Society and to prepare and submit to each annual meeting of the Centre a complete financial statement in respect to the Centre.
- (e) All other Officers - to perform such functions and serve in such capacities as the President or the Centre Council shall direct so that the objects of the Centre may be more readily achieved.

#### Article IV

##### Meetings

1. The annual meeting of the Centre shall be held between the first day of October and the thirty-first day of December of each year at such time and place as the Centre Council shall determine.
2. General meetings of the Centre and Centre Council meetings shall be arranged for and convened on numerous occasions throughout the year as required by law and otherwise, as determined by Centre Council.
3. Notice of each Centre Council meeting shall be sufficiently given if published in any newsletter of the Centre circulated anytime before the meeting and, unless otherwise required by law, notice of each general meeting of the Centre shall be sufficiently given if published in any newsletter of the Centre circulated not more than 50 days and not less than 15 days before the meeting.
4. Quorum at general meetings of the Centre shall be 10 members.
5. Quorum at Centre Council meetings shall be four.
6. At all meetings procedure shall be governed by Roberts Rules of Order unless otherwise provided for herein or hereunder.

#### Article V

##### Amendments to Bylaws

1. These bylaws may be amended by special resolution of members present at any general meeting, provided there is in attendance the necessary quorum, and also provided that 14 days written notice specifying the intention to propose the amending resolution has been given to the Centre Council but shall not

become effective until adopted by ordinary resolution of National Council.

#### Article VI

##### The Bylaws of the Society

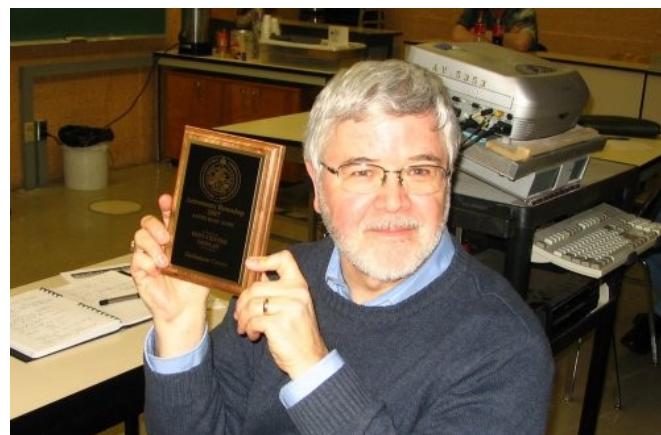
Unless otherwise provided herein the bylaws of the Society shall apply to the Centre mutatis mutandi.

Dated at Saskatoon Saskatchewan this \_\_\_\_ day of March, 2008.

## Saskatoon Centre Wins Best Display Award at GA 2007 by Tenho Tuomi



The display was put together by Les Dickson, Rick Huziak and Barb Wright. Garry Stone made the stand. Rick got a copy of the SSSP video from SCN to run on the TV. The photos were taken by a number of people over the years, some by Ellen Dickson, some by George Charpentier, and the Meadows and Milky Way shot was by Alan Dyer. Thank you for the great effort. I understand this is the second time that the Saskatoon Centre has won the best display award.



# Creating a Relationship with the Sky - The Sun's Analemma and Drawing with Light (Part 2)

by Kathleen Houston



Two years ago I started to create what I call my "flashlight drawings". I camped at Birch Lake Alberta, and experimented with land drawings on the salt beaches. At night I began doing time-lapse images with my trusty 35 mm SLR camera on a tripod. The moonlight illuminated me enough so that photographically I appear to be translucent, yet retain the light drawing around me. The solar analemma images taught me to think into the sky. My stargazing and art making practice found a way to co-exist.



Two years ago in Prince Albert, I completed an analemma drawing (front cover). I drew the sun's shadow on clear days (or when I remembered!) at 12h15 pm., on a board with a 5" nail several times a month. I followed the sun's shadow for one year, to create a wonky figure 8 drawing. There are gaps, but the shape holds together as a continuous curve. It sounds simple and it is, but an analemma recreates a connection to the sun/earth rhythm that is powerful. An analemma photograph of the sun's pathway in the sky is a complete year at a glance. Examples can be found on the Internet.

My obsession continues to evolve. Recently I included my daughter in the experience, here at the urban river access. I invited her to create her own light drawings and experiment with coloured gels.

Since June, I have a

living room window sunrise "calendar". I created a watercolour pencil drawing on the glass that shows the local horizon line and sunrise locations. My 6 year old daughter Marael draws on the same window at her height, and I fear that one day she might erase my drawing by mistake! The glass drawing sprawls northeast to southeast. This morning I added my most southerly entry. I know that sunrise will progress south until winter solstice in December, to solar standstill.

Sometimes I miss the stars I cannot see in Saskatoon. Feeling disconnected from starlight is especially obvious after a return from the Saskatchewan Summer Star Party this year. In Cypress Hills the Milky Way is luminous and touches the horizon. You can lie down on the ground and experience the full light-path arch. You feel it in your cells.



A friend related to me his ocean-horizon experience, where it took several days for him to relearn to gaze that far. My visiting Montreal friend Celine remarked on how the horizon effected her; "C'est reposant pour les yeux", (the land is relaxing for the eyes). The more I talk to people, the broader the understanding of what the horizon experience is.

I invite you to share your insights and

questions. You can include text, images and drawings. In your mind, travel back to places that have a strong energy for you, or night sky experiences that expanded your energy. I concept mapped, drew, wrote, and talked to friends. Networking creates a dialogue I really appreciate. In the future I want to create a blog site.

Kathleen Houston November 2007.  
Earth Balance Art

# The Planets This Month, February 2008

by Murray D. Paulson, Edmonton Centre

Last month we watched a fine **Mercury** appulse, the fading of one superb comet and Mars on its way out. A mighty fine way to start off the new year! The weather was not all that cooperative, but what I got was quite enjoyable. I have a few reports of Mercury early in January, and it was visible till somewhat near the latter part of the month. The month of February will see Mercury head through inferior conjunction with the sun on the 6th of February on its way to the morning Greatest Western elongation on March 3rd. Crazy planet! It moves with such great speed!

Note that Mercury and Venus will be flying in formation over the two week period of February 23 to March 8th when they will be closer than 3 degrees apart. The morning sky at this time of year has the ecliptic tipped down close to the horizon, so this will be a tough search in binoculars in the half hour before sunrise, but it would be great to catch Mercury and Venus in the same field of view. They will be closer than 1.3 degrees on the morning of their conjunction, February 26th, and they will be fairly close together for the week surrounding this date. Mercury will be 3 to 4 magnitudes fainter than Venus and passes above it. This will make a good telescopic view in a medium power eyepiece.

**Venus** on the other hand is gracefully descending the morning sky and over the month of February, will climb out of the bottom of the ecliptic, (Sagittarius) and start climbing back up the morning sky. At the beginning of this month, Venus is a fat gibbous 12.28" gibbous disk in the eyepiece, and shines at Magnitude -3.9. Over the month it will shrink slightly to 11.0" but still shines at magnitude -3.9. As mentioned earlier, Venus will be a challenge from here on in.

**Mars** is now on his way out and sits in the horns of the bull. Mars swung through the western end of its retrograde motion at the end of January, and now is headed back toward Gemini. This will be the highest that you see Mars in the sky for the next 15 years. At the beginning of February, Mars shows a 11.52" disk in the eyepiece and shines at magnitude -0.4. By early next month, Mars will shrink to 8.25" and will shine at magnitude 0.3. During February we get another chance to see Mars and the moon pass in the night. It happens on the night of February 15 - 16 at 01:06 am. local time. The moon passes just 38 minutes of arc above Mars. A subtle detail is that if you examine Mars in the eyepiece, you will discover that both it and the moon are gibbous.

**Jupiter** is poorly placed from our latitude, and resides in

Sagittarius near the Teapot over this month. It is a morning object, and its opposition is still quite a few months off. It shines at magnitude -2.4 and will show you a 39" disk in the eyepiece.

I have been out shooting Comet Holmes in the late evening, and have seen **Saturn** in the east lying in the constellation of Leo. This month Saturn arrives at opposition on February 24th, and becomes an early evening object. At the beginning of the month, Saturn rises at 7:00 pm., and will show you a 19.9", magnitude 0.3 disk in the eyepiece. Despite the fact that it rises at 7:00 pm., it will take until 10 pm. for it to get to a decent observing altitude of 25 degrees. By the end of the month, Saturn is about this altitude by 8 p.m., and crosses the meridian just after midnight. At this time it will sit at an altitude of 48 degrees above the southern horizon. It will be great to have it well placed for observing again. If you were watching it last month, you may have noticed that the rings appear to have tipped up. This is due to the relative placement of earth and Saturn as they move in their orbits. We will continue to see the ring plane appear to tip up over the next few months.

Another thing you can watch for is the change of shadow of the planet on the rings as we go through opposition. It takes some reasonable high magnification, but it is interesting to watch the perspective change as the earth moves through the opposition point. Note this year how high Titan passes in its orbit above Saturn. It is quite a bit lower than last year. On the night of February 20-21, you can watch a full moon pass 3 degrees under Saturn. Closest approach is in the morning hours at 1:30 am., It will make a nice conjunction, but it will make it hard to get up the next morning.

## Walter Essar 1944 - 2008

by Tenho Tuomi

It is with sadness that we report the passing of another of our Centre members on January 10, 2008. Walter Essar was raised in the Foam Lake area and moved to Saskatoon where he joined the RASC Saskatoon Centre. He did not attend many meetings but he was active in helping to collate the Saskatoon Skies newsletter when it was printed by WBM.

# The Messier, H-400 & H-400-II, FNGC, Binoc & EtU Club

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Gratias

Katelyn Metanczuk	15
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The Messier & Finest NGC lists can be found in the Observer's Handbook. The Explore the Universe list is available on the National web site. The Herschel 400 list is available at the web site listed below. The Binocular List will be available at each general meeting or can be mailed out on request to distant members.



On-line Messier and Finest NGC lists, charts and logbooks - check out:

<http://www.rasc.ca/observe.htm>

On-line Herschel 400 List - check out the official site at:

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

## Observer's Group Notes

by Larry Scott

We had a shortened Observers Group meeting on January 4th at Sleaford. Arriving in the early evening we found clear skies and lots of snow in the yard. Pulling out our new snowblower (thanks, Mike!) we cleared a few spots for our scopes and set up. We got a look at Mars and Comets 17P/Holmes and 8P/Tuttle before some high clouds began to roll in. By about 21:30 we were done observing and cleared up a little more snow before calling it a night.

Our next dark sky period begins around February 23rd and runs till March 9th with the Observers Group scheduled

for March 1st. Please note this is a Saturday night, but I'll probably be out on Friday as well if the sky is good. Prior to that, don't miss the lunar eclipse on February 20th.

In December's notes I mentioned a site for keeping abreast of information on comets. Another site with good info is

<http://www.cometography.com/>

which also has links to some most excellent printable finder charts.

See you at Sleaford.