

# Saskatoon Skies

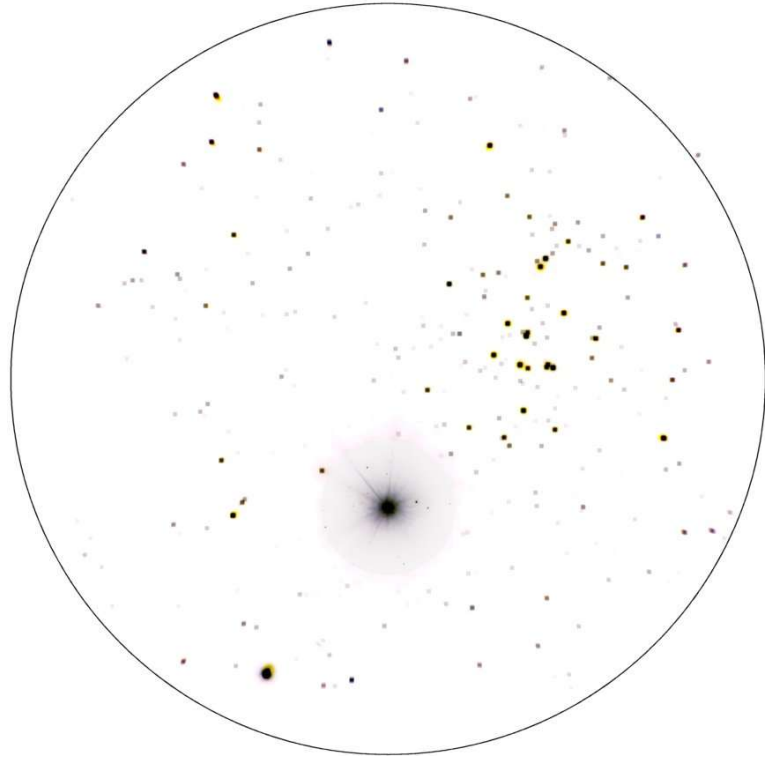
Vol. 37  
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2006

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

## SATURN BUZZES THE BEEHIVE

This month look at Saturn next to M44, Praesepe or the Beehive cluster. The next time you see this might not be until the year 2065. Saturn will sweep past M44 again in June of this year in its retrograde loop, and will even be joined by Mars in mid-month, but they will be low in the West in the evening twilight.

The next time Saturn in its 29.5-year circuit passes M44 will be in 2035, but that time they will be in conjunction with the Sun. So it won't be until 2065 that conditions will again be as favorable as this for viewing Saturn next to the Beehive. - *Photo by Tenho Tuomi, January 24, through a 14x60 finderscope.*



Saskatoon Centre  
The Royal Astronomical Society of Canada  
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: [rmwaldron@shaw.ca](mailto:rmwaldron@shaw.ca)

TELEPHONE: (306) 382-9428

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# 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
- 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 fax 306-659-2170.*

## SASKATOON CENTRE'S MAIN OFFICERS:

**President** – Ron Waldron, 382-9428  
**Secretary** – Al Hartridge, 373-0034  
**Vice-President** – Garry Stone, 857-4707  
**Treasurer** – Norma Jensen, 244-7360



## BOTTLE DRIVE & CANADIAN TIRE \$

by Darrell Chatfield

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.

## 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:

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

### About this Newsletter...

**Newsletter Editors** – Tenho Tuomi, Ken Maher **Copy & Collate**– Rick Huziak **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>. 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.

**LIGHT POLLUTION  
ABATEMENT  
WEBSITE AT:  
[www.ras.sk.ca/lpc/lpc.htm](http://www.ras.sk.ca/lpc/lpc.htm)**

# RASC CALENDAR OF EVENTS

Feb. 20	<b>RASC Executive Meeting -- 6:30 p.m., 175 Physics, U of S</b>	Ron Waldron	382-9428
Feb. 20	<b>RASC General Meeting -- 7:30 p.m., 175 Physics, U of S</b>	Ron Waldron	382-9428
Feb. 24	<b>Observers Group - 8:00 p.m., Sleaford Observatory</b>	Larry Scott	934-5801
Mar. 11	<b>Fundraising Dinner</b>	Norma Jensen	244-7360
Mar. 20	<b>RASC Executive Meeting -- 6:30 p.m., 175 Physics, U of S</b>	Ron Waldron	382-9428
Mar. 20	<b>RASC General Meeting -- 7:30 p.m., 175 Physics, U of S</b>	Ron Waldron	382-9428
Mar. 24/25	<b>Messier Marathon - at dusk, Sleaford</b>	Larry Scott	934-5801
Apr. 17	<b>RASC Executive Meeting -- 6:30 p.m., 175 Physics, U of S</b>	Ron Waldron	382-9428
Apr. 17	<b>RASC General Meeting -- 7:30 p.m., 175 Physics, U of S</b>	Ron Waldron	382-9428
Apr. 21	<b>Observers Group - 9:00 p.m., Sleaford Observatory</b>	Larry Scott	934-5801
Apr. 21-23	<b>George Moore's Astronomy Workshop – Edmonton Centre</b>	Sherry Campbell	(403) 433-1516
May 19	<b>Observers Group - 10:00 p.m., Sleaford Observatory</b>	Larry Scott	934-5801
Aug. 24-27	<b>Saskatchewan Summer Star Party - Cypress Hills Inter-provincial Park</b>	Barb Wright	249-1990

## MINUTES OF THE EXECUTIVE MEETING January 16, 2005

by Al Hartridge

1. Meeting called to order at 6:30 p.m.
2. Approval of Minutes of the December meeting. Moved by Rick Huziak, seconded by Les Dickson and carried.
3. Treasurer's Report: Norma Jensen has submitted a revised report with accurate figures. Moved by Jim Young and seconded by Ellen Dickson and carried that the revised report be accepted.
4. Special Membership meeting in Toronto: Jim Young discussed the implications for our centre. Jim suggested emailing Bonnie Bird at National for a proxy if you are concerned about this.
5. Progress regarding Mail pickup changes: Norma Jensen reported that this is working fine so far.
6. Centre Reports: The Treasurer's report and the Secretary's report are ready to send to National office.
7. SSSP Chairperson update: Barb Wright has volunteered to take over as the chairperson for the SSSP 2006.
8. Observing Group: Larry Scott will draw up a list of pre-set dates for observing group nights at Sleaford. He would like to see different people take turns at leading the group for different nights. He is also interested in a Messier Marathon for March 25 or April 1.
9. Board of Directors: It appears that a board of directors for the Centre will be required in the future. Les Dickson moved that at the next annual general meeting after the election of officers a board of directors be appointed. Seconded by Jim Young and carried.
10. Meeting adjourned at 7:30 p.m.

Why Not Buy a \$20.00 gift certificate to  
**J.D.Peppercorns restaurant  
in Saskatoon?**



**Half the ticket cost goes to  
RASC.**

**Only 20 more to sell and we  
reach our fundraising goal of  
\$500.00!**

**Certificate sales at all RASC meetings. Or e-  
mail Barb wrightb@sasktel.net**

## SKY BUYS & MIRROR CELLS

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

**For Loan to Members:** Slide set for talks on general astronomy and light pollution. You can borrow this set any time you want to give a talk to your favourite group. Contact Rick Huziak at 665-3392.

**For Sale:** 7 X 50 Bushnell Extra Wide Angle Binoculars \$40.00 Firm; 2X Omcon Barlow - \$20.00; 1 New 19mm Antares W70 Eyepiece - \$60.00  
Contact Ron Waldron at 382-9428 or by e-mail at [rmwaldron@shaw.ca](mailto:rmwaldron@shaw.ca)





## BOOKS FOR SALE

by Bruce Brandell, Sales Coordinator

All items will be available at our next meeting or call 249-1119, or email [bruce\\_brandell@yahoo.com](mailto:bruce_brandell@yahoo.com)

Title	Author	# Avail	Price
<b>Calendars</b>			
RASC 2006	RASC	3	\$11.00
<b>Books</b>			
The Backyard Astronomer's Guide	Dickinson & Dyer	2	\$45.00
Night Sky Atlas	R. Scagell	3	\$27.00
The Moon Observer's Guide	P. Grego	1	\$13.00
The Isabel Williamson Lunar Observer's Guide	RASC	2	\$10.00
Firefly Astronomy Dictionary	Firefly	1	\$13.00
Skyways – Astronomy Handbook for Teachers	M.L. Whitehorne	3	\$20.00
The Beginner's Observer's Guide	L. Enright	1	\$19.00
Observer's Handbook 2006	RASC	5	16.00
Manual for Visual Observing of Variable Stars	AAVSO	1	5.00
Variable Star Charts [CD]	AAVSO	1	5.00
Astrophotography	G.N. Patterson	lots	\$3.00
<b>Miscellaneous</b>			
RASC Centennial Mug		2	\$5.00
RASC Stickers, blue or white		lots	\$1.00
SSSP 2001 Pin (Summer Triangle)		17	\$2.00
SSSP 2002 Pin (Comet)		29	\$2.00

## MINUTES OF THE GENERAL MEETING January 16, 2005

by Al Hartridge

1. Meeting called to order at 7:45 p.m.
2. Adoption of minutes of previous meeting. Moved by Ellen Dickson, seconded by Rick Huziak and carried.
3. Highlights of Executive Meeting: presented by Ron Waldron.
4. Lunar Observing Program: discussed by Jeff Swick
5. Presentations:
  - Starry Night CSAP and Sky Theatre a valuable teaching tool, by Ron Waldron
  - Edmonton Astronomy Workshops, by Rick Huziak
  - ENEWS, by Rick Huziak
  - Yahoo RASC list, by Jeff Swick
6. Next Meeting will be Monday Feb 20, 2006.
7. Meeting adjourned at 9:30 p.m.

## MONDAY, FEBRUARY 20, 7:30 PM – ROOM 175, U OF S

Presenting

"The Framis Group Inc. Dark Sky Calculator" -- Les Dickson

"A Famous Historical Astronomer" -- Darrell Chatfield

"Auroral Bands at SSSP 2005" -- Darrell Chatfield

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



## Annual Secretary's Report for the Saskatoon Centre

by Al Hartridge

2005 has been a very busy time for the Saskatoon Centre. Our membership remains fairly stable with a solid core of people who continue to run the centre with enthusiasm.

Our Astronomy Day display this April was well supported by volunteers and moderately well attended by the public. The Saskatchewan Summer Star Party was a complete success with two hundred and forty registrants who were treated to clear dark skies on every night of the event. The open house at the Sleaford Observatory in October was poorly attended on both evenings by the public as a consequence of the inclement weather however the volunteers took full advantage of all the goodies and coffee that was available. In November a well organized booth

was set up at the Prairie Land Exhibition for the Saskatoon Hobby show. There was again a good turn out of volunteers to help with the display but only moderate interest and attendance by the public.

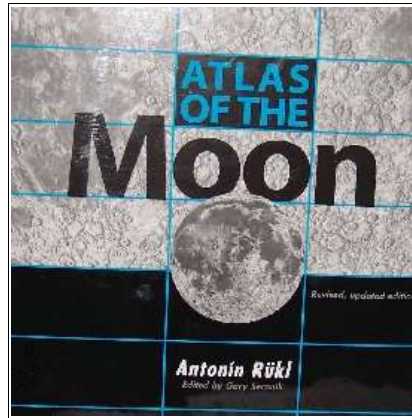
Good fundraising efforts during 2005 have helped to bolster the centre finances.

Dark sky issues continue to be promoted by centre members. Some interest by the city of Saskatoon has been shown in this issue and a new neighborhood has been provided with environmentally friendly full cut off lighting as a test case. We look forward to another exciting year in 2006 with great anticipation.

# Book Report: Atlas Of The Moon

by Mike Clancy

I recently celebrated my birthday by trying very hard to forget all about it but my dear wife had other ideas. I therefore received a seemingly endless parade of old friends and thirsty acquaintances, all of whom offered the usual chaff and wit over my seemingly advanced age. (My only rejoinder is that birthdays are proven to be beneficial to the health; the more you have the longer you live!) Among the ribald cards and losing lottery tickets was a gift certificate from McNally-Robinson's Bookstore, so I immediately went out and bought a book I've wanted (but been too cheap to buy) for some time: Antonin Rukl's "Atlas of the Moon", Sky Publishing Corporation, 49 Bay State Rd, Cambridge, Mass. (c) 1990.



The first edition was limited in size and sold out very quickly so copies (if you can find one) usually sell for about \$100. This is the revised, updated edition and sells for a modest \$55, including the ubiquitous sales tax. Although the meat of the book, all those wonderful hand-drawn maps, remains pretty much the same from the previous edition, there are new bibliographies and the index is more thorough.

Basic information on the moon itself, including a very thorough chart of numerical data occupies the first 25 pages of the book but is excellent reading. Both amateur and seasoned astronomers will find renewed interest in the "magnificent desolation" of our nearest neighbor (quote is from Buzz Aldrin, astronaut and lunar explorer).

The main atlas of charts is located on both the inside cover

and page 27; from this approach you can instantly find the correct map to identify features of any portion of the moon. Turning to the appropriate chart you see the wonderful, hand-drawn maps with the facing page filled with information about the more prominent or important features: from where the name originated, longitude and latitude, and some basic information on the object itself. Each page shows you rilles, mountains and plains, craters (both simple and complex) and approximate sizes.

In using this book I can now define the ability of my telescope to distinguish features on the moon in the approximate size: the simple crater "Swift" located in the Mare Crisium is 11 km in diameter; I need the moon's terminator to be passing over the feature to distinguish its shallow walls. Similarly, the central mountain in the complex crater "Theophilus" rises 1400 m above the crater floor; my 114mm reflector can distinguish this rock quite easily with a 15mm Plossl ocular and the terminator in a propitious location.

Finally, the book offers photographs of 50 "interesting lunar formations", as chosen by the author as well as a chapter on monitoring lunar eclipses; there is also information on lunar observing and a highly useful glossary.

I find that this is not a book to be read - it is meant to be used, for you to take with you whenever you gaze up at the moon.

All in all, this is an excellent reference for novice or expert alike; it is a welcome addition to my library and will assist me for many years to come.

## Astronomy Information for Girl Guides

by Harold Tutt From RASCals Discussion List, Aug. 29, 2005

Information that an Astronomy Club could / should be involved:

Astronomer's Badge (Purpose is to introduce you to the pleasure of stargazing and increase your knowledge of astronomy):

Complete Six of These Eight Activities to Earn This Badge.

1. Define the following: Planet - Comet - Meteor - Meteorite - Star and the Milky Way.
2. Draw a picture or make a model of our solar system. Show the different planets.
3. Find out how we can use the sun and stars to tell directions. Locate the North Star
4. Learn about the movement of the stars. Use a star map.

5. There are many ancient tales of how the constellations came to be. There are the stories of the Big Dipper and the Little Dipper, of Pegasus the flying horse, and many others. Learn one of these stories and share it with others.
6. Find these constellations: Cassiopeia - Ursa Major (which includes the Big Dipper). And two of these constellations: Cygnus - Taurus - Leo - Gemini - Pegasus **Or** The stars of the summer triangle **Or** Any two of the bright stars: Capella - Sirius - Aldebaran - Arcturus - Antares **Or** One planet in the night or morning sky.
7. Learn more about the moon - the phases its age, names of features - and then take a closer look with binoculars or a small telescope.
8. Learn the parts of a telescope and how to use one. **Or** Visit a large observatory and learn about the telescopes there.

# George Moores' Astronomy Workshop

by Sherry Campbell

On April 21-23, 2006, our Club will be hosting an astronomy workshop at St. John's School of Alberta, 70 kilometres southwest of Edmonton, north of Warburg.

For those that do not know what this event is, here is a description. It is basically an astronomy retreat for a weekend. We book a school or scout camp somewhere outside of city limits to take advantage of the dark skies. The event is fully catered; all you have to bring is your bedding, warm clothes and your telescope(s)/binoculars. We bring in a high profile guest speaker, as well as featuring local talent from our Club to assist you in learning more about our hobby. This is a great place to "window shop" for your first or next telescope purchase or talk to people about telescope buying and any other area of astronomy that interests you. It is also a great place to make new friends within the Club. All this for \$90 per person for adults and \$75.00 per person for youths under the age of 15.

The Workshop Committee is pleased to announce that our guest speaker will be Dr. Jaymie Matthews, a mission scientist with the MOST (Microvariability and Oscillations of Stars) telescope project, Canada's first space telescope. An excerpt on MOST is detailed below and is courtesy of the Canadian Space Agency's website:

[http://www.space.gc.ca/asc/eng/satellites/most\\_bkgnd.asp](http://www.space.gc.ca/asc/eng/satellites/most_bkgnd.asp)

The MOST project is a cooperative scientific partnership to create the world's smallest astronomical space telescope, capable of measuring the ages of stars in our galaxy and perhaps even unlocking mysteries of the universe itself.

Sponsored by the CSA's Space Science Branch, the various MOST project teams designed, built and monitor the microsatellite that orbits 800 kilometres above the Earth, so scientists can collect stellar data 24 hours a day.

The tiny satellite weighs only 60 kilograms and carries a high-precision telescope no wider than a pie plate. The device will measure the oscillation in light intensity of stars in order to determine their composition as well as age. Younger stars are comprised more of hydrogen than helium. Sound waves pass through hydrogen faster because it is

lighter than helium. The sound waves set up pulsations in the star's surface, producing changes in the light intensity of the star. The satellite's telescope measures oscillations in intensity of the star, thus estimating its age.

The MOST satellite is unique not only because of its small size, but because it can conduct stellar measurements from space. Traditionally, scientists have relied upon expensive, Earth-based telescopes to provide research data. These instruments have been hampered by both the Earth's distorting atmosphere and its rotation-allowing for only a partial viewing of a star due to the day-night cycle. In space, the MOST telescope has an direct and constant view of a star for up to seven weeks at a time and can downlink data to ground stations at the University of British Columbia and the University of Toronto. The telescope is mounted on a platform about the size of a suitcase. The ability to use such a small satellite for a space telescope is made possible by Dynacon's light gyroscope technology that corrects the wobbling motion of the satellite and accurately controls where the satellite is pointing.

We will also be featuring our round robin sessions with members of our Club giving presentations on different areas of astronomy designed to teach you what you need to know about our hobby. The slate of round robins is as follows:

## **Teacher Session** (Orla Aaquist)

A session designed to provide information for teachers using the Alberta Science Curriculum to assist teachers in their presentation of astronomy in the classroom. Non teachers are welcome to attend.

## **It's About Time** (Krista Stefan)

A session about time.

## **Collimation Clinic** (Larry Wood and Luca Vanzella)

Not sure if the star images you are seeing through your telescope are the best they can be? Larry and Luca will teach you how to collimate your telescope to ensure you are using your mirrors potential to it's fullest. Larry will demonstrate how to collimate Newtonian reflectors, and Luca will demonstrate the collimation techniques for the Schmidt-Cassegrain models.

**Digital Astrophotography** (Murray Paulson & Mike Noble)

Astrophotography has come a long way in a short time. Murray and Mike will help you understand the finer points of digital astrophotography and show you the dos and don'ts.

**Sketching** (Sherry Campbell)

For those of us that can't afford the astrophotography setup, Sherry will show you how to record what you see at the eyepiece for minimal moolah.

**Rocketry** (Adrian Liggins)

Adrian is President of the Edmonton Rocketry Club and has agreed to give a presentation on model rockets and everything you need to know about them.

The Edmonton Rocketry Club has also agreed to attend

to launching a rocket for our benefit. We have asked for the most spectacular launch they can give us allowing for space limitations and retrieval ability. With this in mind, we will have to give up part of our observing field for the rocket launch, but the field at St. John's should be big enough to accommodate all of us.

Sign up early as space is limited. A registration form is located on the website:

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

The cost per person will rise as of March 15, 2006, so signing up early is recommended. Plan on attending the Workshop. I guarantee you will enjoy the experience and will not be disappointed.

*[Application forms can be picked up at the Saskatoon RASC General meetings]*

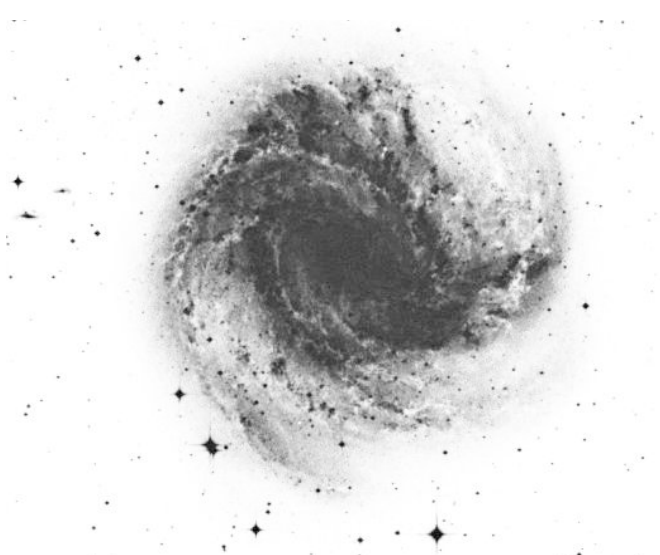
## M83 - the last of my Messier List

by Mike Clancy

It was almost a let-down; M83 does not provide a spectacular view in my little scope, so low to the horizon and dim at Mag 7.6. Another "faint fuzzy" but there it was! I used Harvard Pennington's "Messier Marathon" (chart 26 on P. 127) and Chart 21 in my trusty SkyAtlas 2000.0 to find it. If you draw an imaginary line between Menkent and Gamma-Hydra you'll find M83 about half-way along the line near two stars, neither of which is naked-eye visible (of course!)

The view in my 32mm Plossl was very faint; I noticed it only when the image moved as I scanned through the area. It forms a shortened triangle with the two stars, so you can recognize it from that image. I tried to improve the view with my 15mm Plossl, but I had no luck as the FOV is so different between the two that I couldn't landmark properly; as the 15mm isn't parfocal with the 32mm, I also had to refocus which didn't help!

So, there it is: my 110th Messier object observed since I got this telescope almost 4 years ago to the day.



*M83 from Digitized Sky Survey,*  
[http://archive.stsci.edu/cgi-bin/dss\\_form](http://archive.stsci.edu/cgi-bin/dss_form)

As I said in the opening, actually finding it was mildly disappointing - I've used the Messier list as the focus for my observing sessions for so long that I'm going to be at odds for a while.

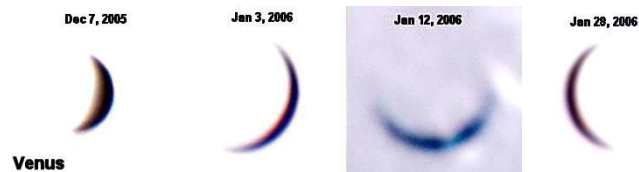
Come to think of it, if I hadn't been outside at 0700 hrs that frosty January morning, I never would have seen Venus shining so brightly on only 7.7% of a waxing disk; maybe I don't need a list in order to enjoy looking at the heavens!

Mind you, the intent of the Messier Certificate is not so much to marvel over the sometimes diminutive objects cataloged so long ago, but rather to get people looking up and to offer some structure to observing sessions. No doubt about it, though; I'll have to upgrade the scope to chase after the NGC's Finest List!



# Flyby of Venus

by Tenho Tuomi



Here are pictures of Venus as it made its pass between the Earth and the Sun in January, on its way from being an evening star to being a morning star. It reached its maximum size on the 13th when it was in inferior conjunction with the Sun, almost directly in line between the Earth and the Sun.

The January 12 picture was taken about 24 hours before inferior conjunction, with Venus only 6 degrees from the Sun. That is the closest I have ever observed Venus to the Sun. That was possible because Venus was far north of the ecliptic, 5.5 degrees higher in declination than the sun at

that time. Then I was able to observe it with Venus 3 degrees above the horizon, and the sun having set at 2 degrees below the horizon. Of course it took setting circles to find Venus under those conditions.

All of these pictures are multiple images stacked with RegiStax. For example, the January 28 picture was taken by clamping the shutter button down on my Canon A75 digital camera and taking 197 1/500-second pictures. RegiStax stacked the best 70 of them to make this picture. Here is a sampling of the original pictures that were stacked.



## Book Report: North Spirit: Travels among the Cree and Ojibway Nations and their Star Maps, by Paulette Jiles

by Norma Jensen

Looking through the astronomy section of the school library last week, I came across a book I'd ordered some years ago and never got around to reading. North Spirit called to me. It had star maps in the title and now that it is winter, stories from the Cree and Anishnabe can be read and told.

Paulette Jiles traveled in and out of Indian Country in northern Ontario in the late 1970's and the book appeared twenty years later. She met people who welcomed her in and generously shared parts of their world. No doubt much has changed since then but hopefully the rich spiritual life is alive.

She tells the story of people living their lives in ways that weave the new with the traditional. Once you enter the story you find yourself drawn to the people and their lives, hard and clean like the land they inhabit.

The star stories come to you in the book slowly. As you get to know the people, more details are told but there is always more. This is the way of the Elders and of story telling.

"Somewhere to the south-east, in the sky just before the edge of the dark, a great being outlined in stars is lifting his sparkling paddle and plunging it into galaxies and nebulae, they foam up like rapids."(2)

Scattered morsels as you read.

"The storyteller is your guide, just ahead appearing and disappearing in the veils of snow" (42)

Waiting for a plane in the village of Ogoki on the Albay watershed, Paulette hears about Ursa Major and Polaris.

"Ojig, the fisher, he has a broken tail. He circles around Nemetahanum, the Bow paddler ... Ojig's tail is broken because he rescued the girls who married stars from the tallest tree in the world. They fell into the tree when they ..."(184)

"The Bow Paddler is what you people call Keewaten-anak, the North Star but we call Nemetahanum. The Bow paddler and the stern paddler are in a giant canoe ... and in this heavenly vessel are all of the stars ... and every star is a legend." (250)

Paulette goes on to describe how a story connects the visible stars into a Narrative Star Map.

Last words to Antoinette, Elder from Ogoki;

"It is the Bow Paddler, in the bow of the canoe that stays steady while the stern paddler moves this way and that and changes with time ... The Bow paddler stays steady. We must have a place inside us that stays steady, we must have a place inside us that stays steady like that and another part of our mind that moves with the seasons and the things that happen to us" (253)



# The Planets This Month, February 2006

by Murray D. Paulson, Edmonton Centre

The month of February is usually a reprieve from the depths of January's cold spell, but January mostly was a month of a dry spell. January has found me busy on the good evenings for some backyard observing, or the weather just hasn't been cooperative. Not enough distant photons have graced my eyes. This month will be good though, with Saturn's opposition just passed, January 29th, on the 250th anniversary of Mozart's birthday and a decent Mercury apparition later in the month.

The month starts off with **Mercury** speeding away from the sun and it's superior conjunction on January 26. This remarkable planet will reach greatest eastern (evening) elongation in less than one month's time from it's conjunction. This elongation is one of the lesser ones, with Mercury only extending 18 degrees from the sun on February 23rd. It will shine at magnitude -0.4 at the time and will show a 7" half disk in the eyepiece. The evening ecliptic, (plane of the planets), is fairly steeply inclined at this time of year, and Mercury is a few degrees above it. This all adds up to Mercury setting an hour and 54 minutes after sunset, despite the shallow elongation. You have plenty of time to chase it down. Start looking for it a week or so before the 23rd, when it sets about an hour and a half after the sun and shines at magnitude -1.0. It should linger for up to a week afterwards, but it will rapidly fade in the week after the 23rd. On the evening of February 28, a slim 1 day old crescent moon sits 4 degrees south west of Mercury. The moon will set at 7:35pm, so find a very clear west horizon for that one. I am not sure that it is even feasible, but... if you see it, it will be close to a record.

**Venus** has only been in the morning sky for a month now, and it is already upstaging Jupiter. It is interesting to contrast the colors of the two brightest planets. Jupiter is a cream yellow compared against Venus's brilliant pure white. At the beginning of the month Venus shines at Magnitude -4.5 and would show you a 53" slender crescent in the eyepiece. February 1, it sat 26 degrees from the sun. Over the month the crescent will fatten up as it's size shrinks, but the brightness stays in marvelous balance. By month's end, Venus shines at, you guessed it, magnitude -4.5, but the

crescent now subtends 33.6" and it sits 44 degrees from the sun.

**Mars** still is eye-catching in the early evening, a bright red ember chasing the Pleiades. Early in the month, Mars shines at Magnitude 0.1 and its disk has shrunk to only 8.5". It now is getting quite small and you need a night of great seeing just to see anything on it. In mid month Mars will pass 2 degrees south of the Pleiades, a good photogenic sight. The closest approach will be on the nights of the 16-17th. By month's end, the disk will shrink to 7" and the brightness will now be only 0.7 magnitude.

**Jupiter** greets me in the hallway window in the dark winter morning hours. It is early and boy is that planet low in the sky! Jupiter sits in Libra, and at the beginning of the month, it shone at magnitude -1.9 and has a 36" disk. When it crosses the meridian, it sits only 20 degrees above the horizon. In 2007-8, Jupiter bottoms out in the ecliptic, and we get to observe Jupiter while doing our southern Messiers! We still are 3 months off Jupiter's opposition, so put it on your late night list to observe as you pack up from your observing session. Jupiter rises at quarter after two early in the month, and by month's end it rises at 12:30. By then, Jupiter has increased in size to 39.5" and it now shines at magnitude -2.1

We save the best for last, **Saturn** is at prime for observing. Just past opposition, and so high in the night sky. At the beginning of the month, Saturn's disk subtends 20.4" and the planet shines at magnitude -0.2. Early in the month, the moon Iapetus follows Saturn in eastern elongation by about 8.5 minutes of arc, or 1/4 the diameter of the moon. Look for it, around the night of February 15th, it will sit one Saturn diameter farther out from Titan. It will be showing it's dimmer side, Magnitude 11.5, and in just over one month's time, it will be at western elongation, and will be at its brightest, magnitude 10.5. Jupiter's moons are bright and big enough to resolve into disks, but Saturn's moons show such a variety in brightness that makes them all the more interesting.

Till next month, clear skies.

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*Join the Club! Observe all 110 Messier, 110 Finest NGC, 400 Herschel I or 40 Herschel II Explore the Universe, or 35 Binocular Objects and earn great OBSERVING CERTIFICATES!*

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Les Dickson		105
Brent Burlingham		97
Brent Gratias		96
Mike Oosterlaken		93
Lorne Jensen		89
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Margo Miller		77
Wade Selvig		75
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Bill Hydomako	55
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Mike Clancy	7
George Charpentier	4

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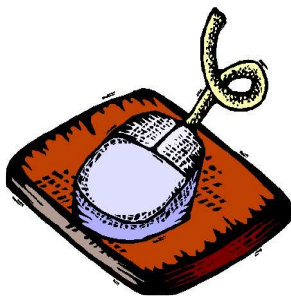
*D.Jeffrey, R.Huziak, D.Chatfield*

Gord Sarty	251
Tenho Tuomi	220
Scott Alexander	117
Mike Oosterlaken	68
Sandy Ferguson	18

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Richard Huziak	211



The Messier & Finest NGC lists can be found in the Observer's Handbook. The Explore the Universe list is available on the National 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>

# RASC Observers Group Notes

by Larry Scott, "Interim" Observers Group Coordinator

Hey everybody. We would like to extend an invitation to all members, as well as their families, friends, co-workers, casual acquaintances, and complete strangers to attend an Observers Group meeting. The dates and times are posted in the Calendar of Events elsewhere in this issue.

There will be updates regarding the inevitable weather delays posted on our Yahoo! site at

<http://groups.yahoo.com/group/rascstoon/>

I am planning to lead the next Observers Group and then try to find people to take turns after that. The plan

is to spread the work around and have people learn by teaching. For what it's worth I'm willing to provide help picking topics, finding resources, etc.

Call me or email at [larry.scott@sasktel.sk.ca](mailto:larry.scott@sasktel.sk.ca) if you're interested or have any questions. (Please put RASC on topic line).

That's all for now.  
I'll see you out there.



**GEORGE MOORES' ASTRONOMY WORKSHOP - APRIL 21ST to 23rd, 2006  
REGISTRATION FORM**

Name: \_\_\_\_\_  
(last name first) please print

Address: \_\_\_\_\_

Telephone #: \_\_\_\_\_  
Home work

E-MAIL address: \_\_\_\_\_

Please check which status is applicable:

RASC Member \_\_\_\_\_ Teacher \_\_\_\_\_ General Public \_\_\_\_\_

FEE:	before March 14, 2006	March 15 to April 10, 2006
Adults	\$ 90	\$ 100
Youth	\$ 75	\$ 85

Youth is 15 years and under, and they must be accompanied by an adult. Payment must be enclosed with form to guarantee registration. Cheques should be payable to: RASC - Edmonton Centre. NO refunds after April 10, 2006. Registration forms can also be mailed to:

GMAW, c/o S. Campbell, 333 SouthRidge, Edmonton AB T6H 4M9.

Additional Questions: (780) 433 - 1516

FOOD: Please indicate any dietary needs or allergies.

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ACCOMMODATION: Accommodation is inside a private school with dorm rooms. We have limited rooms available for couples, which may have two (2) to four (4) bunk beds. If you have a preference for roommate(s), please name them here.

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TRANSPORTATION: Maps will be provided.

SEMINARS: In addition to the primary guest speaker, Jaymie Matthews, you have the possibility to attend two seminars. In order to help us assign halls/rooms for these sessions, please indicate which session you would like to attend. The "teacher" sessions are tailored to the grade 6 and 9 Alberta Sky Science Curriculum, but non-teachers are welcome to attend. Please choose one from each session.

First Seminar Session	Second Seminar Session
____ Teacher's Session/Orla Aaquist	____ Teacher's Session/Orla Aaquist
____ It's About Time/Krista Stefan	____ Sketching/Sherry Campbell
____ Collimation/Larry Wood & Luca Vanzella	____ Collimation/Larry Wood & Luca Vanzella
____ Digital Photography/Murray Paulson & Mike Noble	____ Rocketry/Adrian Liggins

For Office Use only: received date \_\_\_\_\_ Reg. # \_\_\_\_\_  
payment enclosed \_\_\_\_\_ Deposited \_\_\_\_\_