



# NOVA

NEWSLETTER OF THE VANCOUVER CENTRE RASC

VOLUME 2005 ISSUE 2

MARCH/APRIL 2005

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## Looking Ahead

Remember, you are always welcome to attend meetings of Council, held on the first Tuesday of every month at 7:30pm in the G.S.O.

**Mar. 8:** Dr. Douglas Scott of UBC's Physics & Astronomy Dept.: "What's the Universe Made Of?"

**Apr. 12:** Larry Reeves, Space Mission Analyst, MDA: "Canadian Mars Missions Feasibility Study Summary."

**May 10:** Ian McLennan, Vancouver Centre member: "New Planetariums in the World: Implications and Prospects for Vancouver"

## Next Issue Deadline

Material for the May Nova should be submitted by Monday, May 2, 2005. Please send submissions to:

Gordon Farrell  
(gfarrell@shaw.ca)

## Stars in Hawaii

by Ron Jerome

In mid-December my wife, Anne, greeted me with the announcement, "I need some warm weather and sunshine so I've booked a trip to Hawaii. I also need some one to carry the bags, so you are invited." How do you beat an offer like that? Included in my bags was my 80mm refractor and attachments, along with my camera tripod.

Disembarking in the Kahului, Maui airport, we walked through an open air corridor leading to the baggage claim area. Along the way we passed an innocuous looking glass case that held a replica of a two-masted Polynesian 'catamaran'—the Hokule'a. With a vessel like this the Tahitians traveled 2400 miles north into the unknown, encountering the Hawaiian Islands some 1300 years ago. Our trip from Vancouver covered 50 percent more distance but we accomplished in six hours what would have taken those early adventurers a minimum of three weeks under the best of conditions. The Polynesians would have used the same navigational tools as the Minoans, the Phoenicians and the

Vikings—a thorough knowledge of the stars. The pilot of our aircraft employed compass, radio and GPS to ensure our safe travel. What prompted me to pursue this matter further was that the word "Hokule'a" means "zenith star."

Records show the Polynesians had developed a very sophisticated star compass and this knowledge was combined with an understanding of wind and wave patterns over the seasons to enable them to make their long and perilous voyages. Typically, a priestly astrologer would be called in for advice before the more important of these trips were undertaken. The sky, both day and night, was scanned for signs and the winds and the action of the sea were monitored. A pig was baked and prayers offered. If all the portents were good, the voyage went ahead. Except for leis given to Anne and me at the airport check-in, our arrival and departure from the islands was pretty mundane.

Among the stories of the discovery are those of Chief

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## Observing Committee Report

by Craig Breckenridge

Recently the Vancouver Centre Executive decided we are lacking in one very important aspect at our Centre: we didn't have an Observing Committee! This is a terrible thing to have when one of the primary objectives of the RASC is to promote observation of the night sky. Accordingly, a committee was struck with myself as Chair and with Council Members Pomponia Martinez, Bob Parry, Bruce MacDonald, Doug Montgomery and Jason Rickerby making up the rest of the panel. We held our first Committee meeting on February 19<sup>th</sup> and came up with some activities right away. We want to make our mandate anything to do with getting our members out and looking up.

The first thing we discussed was the re-instatement of 'In Transit' which had been missing from our monthly meetings for several years. For those who are new to the Centre or have forgotten what this was, I'll bring you up to

speed: Lee Johnson used to pick a couple of constellations each month that he would highlight and describe some of the objects located within them. With this in mind, I will be presenting In Transit with a bit of a new format. I will present a couple of constellations with maps and images. I will then highlight some of the objects contained within them and give some idea of how they can be located. After the meeting is over, we will go over to the GMSO where we will set our scopes up and show you these objects (weather permitting) and how we found them.

It is in the spirit of the setting the scopes up after meetings that we would like to invite members to bring their scopes. If you are unsure how to set your scope up properly or are not exactly sure of the best way to use it, this is the ideal time for you to bring it down for a quick lesson with our experienced observers. We want to make some time each clear night to help out those of you who are

new to observing or else new to your equipment. We have a wide experience range on the Committee and are familiar with most types of telescope setups. One of us will be able to help you out.

The third major thing we will be doing is to re-form the M Club. This was an observing group who were all working to obtain their Messier Certificates. For those of you who don't know, the RASC currently awards three observing Certificates; The Explore the Universe Certificate, The Messier Certificate and the Finest NGC Certificate. There will soon be a certificate for Lunar Observing as well. The Explore the Universe program is designed as a beginning program that will help you to learn the night sky and bright objects within it. The Messier Certificate is awarded for the successful observation of all 110 Messier objects. Similarly, the Finest NGC Certificate is awarded for successful observation of the

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## President's Message

One of the opportunities this column presents for me is to bring matters of interest to the attention of members. February is budget month and National Council is currently considering a program which, without modification, would result in a deficit of some \$52,000. This would be the third successive shortfall and nearly twice that estimated for 2004. The Vancouver Council has put forward a number of recommendations to rein in this spending. Among them are changes to the way membership is priced. While they are based on the membership survey National conducted last year, they are controversial.

Our members stated clearly that the Observer's Handbook was their first choice among publications. SkyNews was second. Our suggestion is to include only the Handbook as the basic publication received with membership. SkyNews would then be paid for directly by those members who want to receive it. The Journal ranked further down the list. This publication could be delivered on-line from a good web host, and we have recommended National find one and do this. The Annual Report could also be delivered on-line, a step currently being taken by many of Canada's largest public companies. Printing and mailing costs for the RASC publications are large and growing

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## 2005 Vancouver Centre Officers

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### Education Cmte. Chair

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### Trustees

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## About RASC

The Vancouver Centre, RASC meets at 7:30 PM in the auditorium of the H.R. MacMillan Space Centre at 1100 Chestnut St., Vancouver, on the second Tuesday of every month. Guests are always welcome. In addition, the Centre has an observing site where star parties are regularly scheduled.

Membership is currently \$55.00 per year (\$31.25 for persons under 21 years of age) and can be obtained by writing to the Treasurer at the address below. Annual membership includes the invaluable Observer's Handbook, six issues of the RASC Journal, and, of course, access to all of the club events and projects.

For more information regarding the Centre and its activities, please contact our P.R. Director.

NOVA, the newsletter of the Vancouver Centre, RASC, is published on odd numbered months. Opinions expressed herein are not necessarily those of the Vancouver Centre.

Material on any aspect of astronomy should be e-mailed to the editor or mailed to the address on page 5.

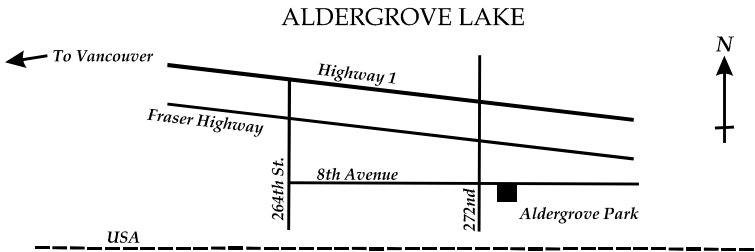
## Advertising

Nova encourages free use of its classified ads for members with items for sale or swap. Notify the editor if you wish your ad to run in more than one issue.

## Commerical Rates

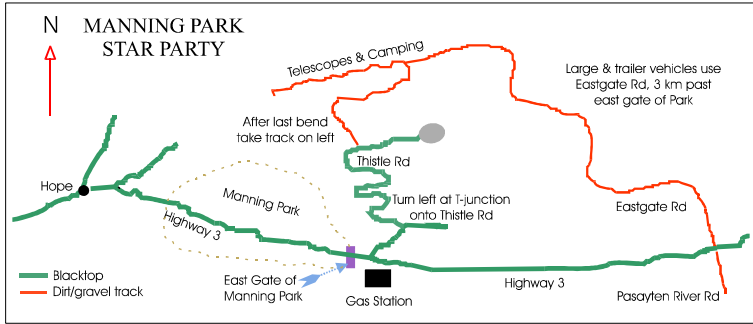
1/4 Page: \$15.00 per issue  
1/2 Page: \$25.00 per issue  
Full Page: \$40.00 per issue  
Rates are for camera-ready, or electronic files. Payment, by cheque, must accompany ad material. Make cheque payable to: RASC Vancouver Centre.

# Observing Sites

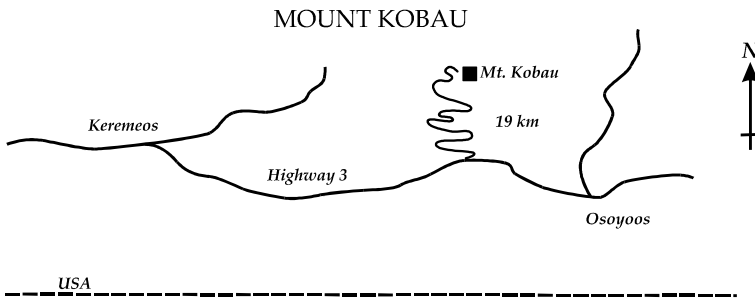


Dale McNabb Observatory in Aldergrove Lake Park (RASC Vancouver Centre's regular viewing site)

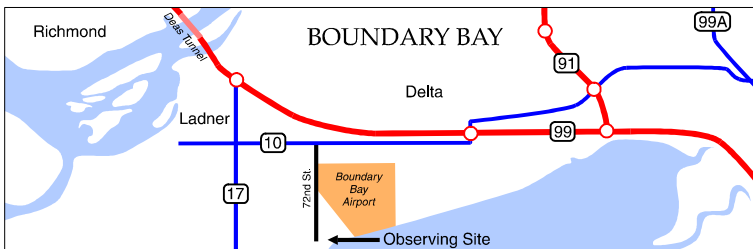
Contact Mike Penndelton (604-888-1505) or Howard Morgan (604-856-9186)



Site of the annual star party organized by the RASC Vancouver Centre



Site of the annual Mt. Kobau Star Party organized by the Mount Kobau Astronomical Society



Site of the regular Saturday night star party. On the dike at the foot of 72nd St.

## FOR SALE

The Vancouver Centre is selling some of our loaner scopes to make room for new scopes entering the programme. Please see Phil Morris in the GMSO after the meeting if you are interested in purchasing one of these scopes.



4.5" Tasco reflector with a manual German equatorial mount & tripod. Red and Black. \$125.00



60mm f/15 refractor with a German equatorial wood tripod mount. \$100.00

## ASTROCOMPUTING

**SpaceBase™** (604-473-9358,59). Affiliated since 1992 with RASC Vancouver, our link to RASC Net, RASC Members only chat area. Future data distribution hub for CARO Project. Features include latest HST images, current world space news and astronomy programs.

## LIBRARY

The centre has a large library of books, magazines and old Nova's for your enjoyment at the GSO. Please take advantage of this club service and visit often to check out the new purchases. Suggestions for future library acquisitions are appreciated.

### RASC-VC on the Internet

<http://www.pcis.com/rascvan/> or  
<http://www.rasc.ca/vancouver>

## H.R. MACMILLAN SPACE CENTRE

The Pacific Space Centre Society is a non-profit organization which operates the H.R. MacMillan Space Centre and Gordon M. Southam Observatory. Annual Membership (\$30 Individual, \$80 Family) includes a newsletter, Discounts on Space Camps, special programs and lectures, Vancouver Museum Discounts, and free admission to the Space Centre. Admission to the Space Centre includes: Astronomy shows, Motion Simulator rides, multimedia shows in GroundStation Canada, and access to the Cosmic Courtyard Exhibit Gallery. For Membership information, call Mahi Jordao at 604-738-7827, local 237 for information. You can also reach them on the Internet at <http://www.hrmacmillanspacecentre.com/>

## MEMBERSHIP HAS ITS PRIVILEGES!

New members, did you know? The Vancouver Centre has 8 telescopes available for loan free of charge! We have telescopes ranging from 60mm to 10" diameter. For more information see Phil Morris, Director of Telescopes in the meeting room of the GSO *after* the members meeting. All telescopes are to be picked up and returned at the GSO. The loaner period is for one month, to be returned after the next meeting. Telescopes are not allowed to circulate outside of these meetings. You can now reserve 2 different telescopes per year and use what is left at the end of the meeting anytime. Phil can be reached at 604-734-8708.

Your greatest opportunity as a member of the R.A.S.C. is to take advantage of the company of other enthusiasts to increase your knowledge, enjoyment and skill in astronomy.

The best thing you can do to gain the most from your membership is to get active! Take in the club meetings; engage other members with questions; come out to observing sessions (also known as "star parties"), and, by all means, volunteer to take part in our many public events.

Observing takes place at Boundary Bay on the dike at the south end of 72nd St. in Delta (see map on p. 4). We are there most clear Thursday/Friday nights. Contact Jason Rickerby at 604-502-8158.

**RASC**  
**1100 Chestnut Street**  
**Vancouver, B.C.**  
**V6J 3J9**  
**604-738-2855**



## Upcoming Events

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### March

12 – Messier Marathon I at Boundary Bay

### April

9 – Messier Marathon II at Boundary Bay

11-17 – International Astronomy Week

16 – Astronomy Day

29 – Merritt Star Quest

### May

13 or 14 – Sidewalk Astronomy  
20-23 – GA2005 in Kelowna

### July

30 – Mt. Kobau Start Party begins

### August

7 – Mt. Kobau Star Party ends  
11 – Perseid Meteor Shower at Aldergrove Lake

### October

8 or 9 – Sidewalk Astronomy

### December

13 – AGM

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110 Finest NGC objects as listed by Alan Dyer in the Observer's Handbook. Requirements for the certificates are given in the Handbook and are also given on line at the National web site under Observing ([www.rasc.ca](http://www.rasc.ca)). I will make copies of the requirements available in hard copy form and have them with Committee members at meetings. The M Club will help any member who wants to work on any of the Certificates

or even just go out and observe without working on a program.

In order to accomplish the successful observation of the objects required for these Certificates, we will start holding regular observing sessions on clear Saturday nights at the Boundary Bay site (map located elsewhere in all issues of NOVA and on the web site). We will start these sessions at 8:30PM. If we decide to use one of the other sites, we will place an announcement on the

observing forum on our web site. If you are interested in joining us, please do not hesitate to contact one of the Committee members. This is another chance for those of you who are new to the hobby or equipment to bring it out and learn from one of us the proper way to set it up and use it.

Please do come out and join us, we are a friendly bunch that always have a good time when we get together. \*

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## Messier Marathon

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### by Craig Breckenridge

There is an opportunity coming up on March 12<sup>th</sup> to perform the annual Messier Marathon. In the past, the club has managed to locate and observe about a third of the Messier objects in one night. This year we would like to raise that bar a bit higher and find even more. We will be setting up at the Boundary Bay site at dusk on the 12<sup>th</sup> to perform the run through the night sky. Any members who are interested in a night of guerilla observing are invited out. We will provide lists

for those who wish to attempt the marathon, and will gladly help any others who just wish to look at some of the Messier 110 without trying for them all.

This Marathon will be repeated on April 9<sup>th</sup> with the same format; meet at dusk at the Boundary Bay site and observe as many of the objects as we can. Star charts and planetarium programs will be on hand to aid in finding the 110 Messier objects. I would point out that the only successful complete Marathons that I am aware of in the Society were

performed in Arizona, I think our location precludes us completing the whole list.

If you are interested in joining us, please do not hesitate to contact one of the members of the Observing Committee (see report elsewhere in this issue). Drop ins are welcome so do join us for a night of fun under the stars. \*

Craig Breckenridge  
Observing Committee Chair  
[craig.breckenridge@shaw.ca](mailto:craig.breckenridge@shaw.ca)  
604-437-3103

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Hawai'i Loa, after whom the islands are named. On his extended fishing and exploration voyages, Hawai'i Loa's skilled navigator would use Iao, the Eastern Star, the red star Hokuke'a (Aldebaran) and "those big stars which resemble a bird" (Cassiopeia) to guide the boat and crew on their journeys to the north and east, ultimately encountering the islands. Returning home, they followed the stars of Ke Ali-i-o-Kona-

i-k a-Lewa (Canopus) and those of Hoku-kea o ka Mole Honua ("star-cross of the bottom of the earth", or Southern Cross). The sun, moon and several of the planets also served as navigational aids.

Our accommodation was in Makawao, near the base of the dormant volcano Haleakala ("the house of the sun"). Rising to 3000 meters, it is the focal point for the variable weather patterns on the island. Clear skies in the morning were frequently followed by clouds, which completely obscured the top from view. By late evening, however, the night sky would begin to appear, revealing a host of telescope treats. In retrospect, staying on the southern or western

sides of the island would have yielded more open skies, but considerably more light pollution, as that is where most of the big resort towns are located.

To be honest, after a full day of hiking or sight seeing, topped off by a great meal, I found it easy to retire early. Still, I inevitably



stuck my head out the door of our accommodation to see if the skies would host my scope. On our last evening, conditions looked promising. Finding a dark site in the dark resulted in a bit of frustrated searching, but the road toward Haleakala offered a few possibilities. By the time I had selected a suitable site the clouds had begun to roll in, so the best views I could get were through a patchwork sky. Nonetheless, I had one of my most rewarding viewing experiences. Under this really dark sky it was possible to pick out, unaided, some of Anne's "fuzz balls," the faint star clusters and nebulas within our visual grasp.

Using a basic camera tripod to hold my scope has its

limitations. It is difficult to find and hold views of small objects. I had a hard time with Saturn, although I did get a few moments through a new lens that yielded the best close-up encounter I have ever had, not quite Cassini, but still very satisfying. The best treat was my old friend, the Orion Nebula.

As I gazed at that glowing cloud of gas, dust and hot stars, for the first time I could clearly see the outline of what I always considered to be the figure of a bird—the small head with its

hooked beak and its outstretched wings, poised to swoop down on the stars of the Trapezium. Coloured photographs remind me of paintings by Chagall or Kandinsky, but until that evening the clear outline of the figure had not been evident. It was wonderful!

The clouds finally called my viewing to a halt. As I repacked the lenses, the star diagonal and finder scope in my trusty shoebox, wrapped the foamy around the scope and slipped it into its lawn chair carry bag for the trip home, I knew that clear dark skies would beckon again soon. ★

## From the Librarian

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by William C. Fearon  
Librarian – Vancouver  
Centre

This will be the first in series of articles on what the library has for new astronomers. Each issue will contain a brief report on a book or other resource that is in the library. In this issue, I will report on the favorite of many: *NightWatch* by Terence Dickinson.

*NightWatch* was originally introduced in 1998 and is currently in its 5<sup>th</sup> printing as of 2001. It quickly became a favorite of amateur astronomers (both beginners and advanced) for its simple to use star charts and fold-over ring binding, allowing its use in the field.

Chapter One covers discovering the Cosmos. It basically discusses what amateur astronomy is and what an amateur can do to explore the universe.

Chapter Two covers the basics of the Universe in 11 steps, from just the Earth to the edge of the Universe.

Chapter Three covers how to get around the sky through the basics of astronomy, such as the daily motion of the sky and the annual motion of the earth around the sun in a year. Additionally, information on magnitudes and

what defines a constellation are introduced.

Chapter Five contains the Seasonal All-Sky charts and information on how to use them, as well as information on Light Pollution, Urban stargazing and the Ecliptic and the Zodiac.

Chapter Six covers stargazing equipment. This chapter talks about what type of observing gear is used and how to decide what you might want to use to start. It will also help you avoid the dreaded trash scopes that can still be found in mass-market stores from time to time.

Chapter Seven talks about what is up in the night sky besides Stars and Planets. Things such as Nebulae, Galaxies and Clusters are worth looking at and this chapter describes these things and others as well. This chapter contains Deep-Sky charts to find 22 of the brightest and easiest of these objects.

Chapter Eight covers the Planets. How to view them, what you will see and when and where to see them up to 2010 AD (5<sup>th</sup> Edition).

Chapter Nine concentrates on the Moon and Sun. How to view the sun safely and what you are likely to see. How to look at the

Moon to see craters and other terrain features that can even be seen in binoculars. A few simple Lunar maps are included.

Chapter Ten describes Solar and Lunar Eclipses. What are they, how often and where can one go to see these events. A list is for Solar and Lunar events up to 2010 AD (5<sup>th</sup> edition).

Chapter Eleven covers Comets, Meteors and Auroras. This chapter describes what each of these items is and how to go about viewing them.

Chapter Twelve is about Astrophotography. Both film and CCDs are discussed, but this is mostly for those who are ready to step into recording what they see.

The book ends with a short chapter on other resources of astronomical information for the reader such as other books, magazines and on-line sites.

I would recommend that all beginners should read this book. I added this book to my personal collection in 2003. I consider myself to be an advanced intermediate astronomer. I purchased my copy from The Real Canadian Superstore for \$19.95 plus taxes. It probably could be found elsewhere as well. \*



## From the Librarian: The Top 12 for Beginners

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- 1) *NightWatch* by Terence Dickinson
- 2) *The Backyard Astronomers Guide* by Alan Dyer and Terence Dickinson
- 3) *The Beginner's Observing Guide* by The RASC
- 4) *The Sky: A User's Guide* by David Levy
- 5) *The Starry Room* by Fred Schaff
- 6) *Starlight Nights: The Adventures of a Star Gazer* by Leslie Peltier
- 7) *The Stars Belong To Everyone: How To Enjoy Astronomy* by Helen Sawyer Hogg
- 8) *A Field Guide To The Stars And Planets* by Jay Pasachoff and Donald A. Menzel
- 9) *Exploring the Night Sky* by Terence Dickinson
- 10) *Starry Night Deluxe* version 2.1 by Sienna Software Inc.
- 11) *Sky Atlas 2000.0* (1<sup>st</sup>, 2<sup>nd</sup> and Laminated Field editions) by Wil Tirion and Roger W. Sinnott
- 12) *Atlas of the Moon* by Anton Rukl and T.W. Rackham

These items are usually available for lending to members in good standing for a one month period. They can be picked up at our monthly meeting's coffee and cookie session after the main meeting in the Gordon MacMillan Southam Observatory. These are popular books and they may not be available every month. ★



Your 2005 Vancouver Centre Council. Back row (l-r): Jason Rickerby, Gordon Farrell, Phil Morris, Marc Verschueren, Craig Breckenridge, Bob Parry, Bruce MacDonald, Doug Montgomery. Front row (l-r): Chris Dolman, Bill Ronald, Ron Jerome, Pomponia Martinez, William Fearon, Dan Collier.

## Members' Gallery

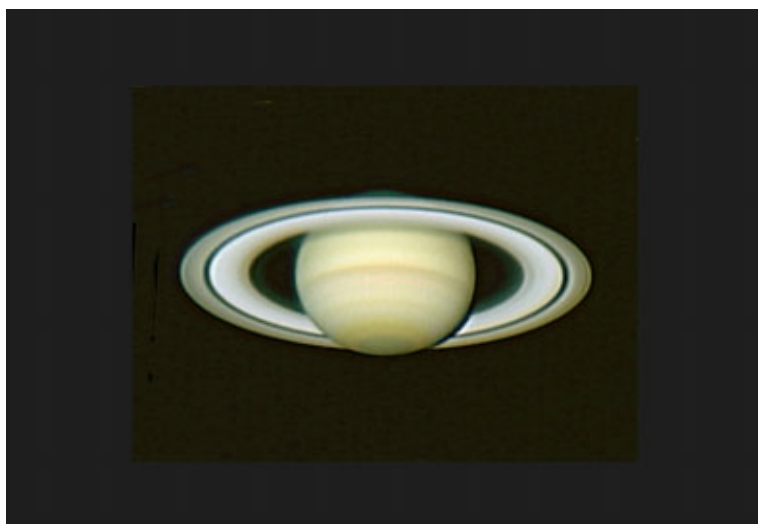
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**Comet Machholz**  
Brian Morse

**Saturn**  
Brian Morse

3 December, 2004



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and changing the delivery format would be of significant benefit.

At the General Assembly (GA) last year, members voted to increase annual membership fees at the National level by \$6.00, raising the basic membership cost to \$50.00. Vancouver agreed to the increase with the proviso that National undertake serious cost cutting measures. Based on their preliminary budget, there is no evidence this occurred. Vancouver Centre had typically added a \$7.00 surcharge to the National membership cost to fund our programs, but chose to cut that to \$5.00, as we felt that membership was becoming expensive.

Even if National were to take a sharp knife to expenses, it is highly likely that another free increase will be on the agenda for the GA in May. There would be no increase in benefits associated

with the higher fees. Members will, in effect, continue paying for all the publications indirectly. We will advise you of further developments but you should begin thinking very hard about the services you value and what you are willing to pay for them. This year's GA will be held in Kelowna, May 20-23. Members can attend in person and have a chance to vote on any proposed changes to pricing or services. Members can also vote by proxy and your National Representatives will deliver your votes. Be sure you let us know.

As for your Centre's budget for 2005, Council has approved a deficit of up to \$2000, based on the possibility of providing a special event for members during the year. With the exception of 2003, when Vancouver hosted the 2003 G.A., the Centre has enjoyed breakeven or a surplus in its

financial results each year since 2000 (that is as far back as my records go). As our Treasurer noted at the December Annual General Meeting, the Centre is in a good financial position and it is your Council's objective to keep it that way. As we are able, benefits will be returned to the members.

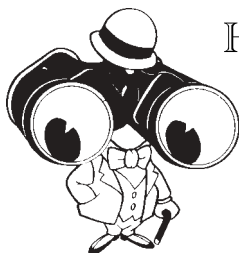
The Observing Committee will attempt a Messier Marathon on March 12<sup>th</sup> or April 9<sup>th</sup> at our Boundary Bay observing site, depending upon the weather. Astronomy Day will be held April 16<sup>th</sup> at the Space Centre. Members are encouraged to come out and support these events.

I invite questions or comments on these or any other matters. Council meets the first Tuesday every month at the GMSO at 7:30pm and you are invited to attend. Who knows, you might wind up as a member. ★

## RASC MERCHANDISE

Available for purchase after meetings:

Calendars	\$14.00
Golf Shirts	\$30.00
Sweat Shirts	\$30.00
Centenary Mugs	\$ 7.00
Beginners' Guides	\$15.00
Observers' Guides	\$20.00
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e-mail: [john\\_hartley@telus.net](mailto:john_hartley@telus.net)

### Second Hand

JMI NGC Micro-max (C8/GP mount)	\$ 300.00
Meade 4" Ring Tube C/Weight	\$ 45.00
Meade APO Universal Thread Adaptor	\$ 39.00
Meade 2080 8"SC + many accessories	\$ 2500.00
Meade Pictor CCD Autoguider model 201XT	\$ 599.00
Meade 10" f/4.5 Starfinder/equatorial mount plus accessories	\$ 1500.00

Now in stock: Pentax XL Eyepieces