# NEWSLETTER OF THE VANCOUVER CENTRE RASC | VOLUME 2008 ISSUE 6 | NOVEMBER/DECEMBER 2008

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### **Looking Ahead**

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

**Nov. 13:** Larry Reeves of MDA, launch manager for the German Rapid-Eye Earth Observation satellite on his trip to Russia's Baikonur cosmodrome.

**Dec. 11:** AGM and Vic Baker on light pollution.

#### Next Issue Deadline

Material for the January Nova should be submitted by Monday, Dec. 29, 2009. Please send submissions to: Gordon Farrell (gfarrell@shaw.ca)

Title image: Jason Rickerby

### **Looking North - Forty Years**

by David A. Rodger

[Reprinted with permission from the FVAS Star Bulletin]

Forty years ago, on October 26, 1968, a nine-member team of daring, arrogant, imaginative, sometimes reckless, astronomy enthusiasts began

Planetarium that spring at the tender age of 26. I had been Director of Edmonton's Queen Elizabeth Planetarium since November 1965 (Canada's first public planetarium), prior to which I was a radio and television



Forty years ago, David Rodger displayed a model of a Space gallery that was planned to be situated outside the Planetarium theatre.

Photo: Dave Paterson. Vancouver Province.

presenting original shows at Vancouver's H.R. MacMillan Planetarium. As the leader of that dauntless crew, I hope you'll permit me to engage in a little personal nostalgia this month.

I arrived in Vancouver in July 1967, having been chosen Director of the

newscaster in Edmonton and Saskatoon, and writer/producer of weekly television shows on astronomy in both cities. Furthermore I had been an avid amateur astronomer since elementary school, and pubcontinued on page 6 **Volunteers** by Wayne Lyons

I started writing this article with an intention of writing about the buzz of activity at Vancouver Centre's observatory. We have been busy recently cleaning up the place, acquiring new equipment and training interested members on how to operate the equipment belonging to Vancouver Centre.

At last month's council meeting, a decision was made to formally recognize our Centre's observatory as the Antony Overton Memorial Observatory. This dedication to Antony Overton was made after his passing in 2001 to honour the many hours of volunteer work he contributed to the Canadian Amateur Research Observatory project. The AOMO will continue on with the same goals as CAROP. It will also work actively toward providing education and outreach. We are aiming to promote astronomy and share the night sky with youth groups and the general public.

Vancouver Centre's observatory would not have been possible without the vision and efforts of many volunteers. Antony Overton's vision, time and efforts made the observatory possible. Members such as Duncan Munroe, Dan Collier, Phil Morris, Eric Fuller, and Bob Parry have taken leadership roles to see that the observatory continues to operate and a great many more members have contributed countless hours of volunteer effort to support those leaders.

The RASC is a charitable organi-

zation with thirty separate centres across Canada dedicated to the advancement of astronomy by supporting local programs of public education and outreach. There are many ways that this mission statement can be achieved but they all begin by belonging to a group of dedicated people who share a common goal.

As a member of RASC-Vancouver Centre you do have the opportunity to be part of our major objectives.

Volunteers such as Suzanna Nagy, Alan Jones, Henry Neil, and Cameron Widen have helped by participating in our public outreach programs that take observing to the public in downtown Vancouver.

Sidewalk Astronomy events are great places to make people aware of what they can see from their own back yards and maybe provide a little encouragement to seek darker skies to hunt down that little bit fainter celestial object. This is also a place to make the public aware of the use of proper lighting techniques to preserve dark skies in our communities.

Another group of volunteers have contributed time to other special projects that Vancouver Centre. Our members annually host Astronomy Day at the H.R. MacMillan Space Centre and put on talks and workshops to help out novice amateur astronomers.

Vancouver Centre is also very fortunate in having members like David Dodge, Bill Burnyeat, Eric Dunn and Craig Breckenridge who use their speaking skills to put together many of the presentations we enjoy at our regular meetings and special events. They have also contributed their speaking skills with presentations to outside groups interested in astronomy.

One of our youth group members, Ronan Kerr, is another avid volunteer amateur astronomer who is organizing local observing sessions for members of his school and community.

At a recent work party, Brett Spratt, Mark Eburne, Harvey Dueck and David Sanghara helped out to make Vancouver Centre's observatory a place that will be used for training, reaching out to the public and hopefully in some way contributing to amateur scientific research.

Pomponia and all of our members of Council have worked actively in promoting astronomy to the public and fellow amateur astronomers.

Accept my apologies for not mentioning the many others of you who have contributed actively to the RASC Vancouver Centre in the past. I know that list is long.

The last and largest group of volunteers are those of our membership who have not actively participated in any of the aforementioned activities. Over 200 of our members do passively show their support to Vancouver Centre with a membership to the RASC. Without their support we would not be

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### President's Message

Greetings everyone! This will be my last official "President's Message" as I move to a support role in the coming year. A lot has happened over the past two years, thanks to a really great Council with whom it has been a pleasure to work with. Some of our recent website (www.vancouverastronomy.com) along with posting new events on www.meetup.com will really help get the message out that the RASC Vancouver Centre is dedicated to being the Centre of Excellence for amateur astronomy in the Metro Vancouver Area with a Mission to promote the appreciation of the beauty of the Universe. It is up to all of us to further this mission and I am proud to be associated with such devoted group of members willing to share their passion for astronomy and space science with our community.

Our recent annual planning meeting highlighted a myriad of opportunities for public outreach to celebrate International Year of Astronomy in 2009 with the rest of the world. We will be working with our partners including the H.R. MacMillan Space Centre, UBC, SFU, Science World and BCIT to make this happen. Our first kickoff event will be a on January 10th, 2009 at the H.R. MacMillan Space Centre where Dr. Jaymie Matthews will deliver a talk entitled, "What if Galileo had a space telescope?" In his inimitable way, Dr. Matthews will ponder what

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### 2008 Vancouver Centre Officers

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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 Thursday of every month. Guests are always welcome. In addition, the Centre has an observing site where star parties are regularly scheduled.

Membership is currently \$70.00 per year (\$41.00 for persons under 21 years of age) and can be obtained by writing to the Treasurer at the address on page 5. 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**

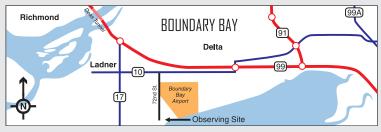
1/4 Page: \$15.00 per issue 1/2 Page: \$25.00 per issue Full Page: \$40.00 per issue

Rates are for electronic or cameraready files. Payment, by cheque, must accompany ad material. Make

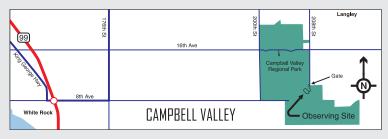
cheque payable to: RASC Vancouver Centre.

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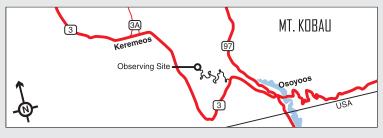
# OBSERVING SITES



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



Our alternate observing site. Contact Bruce MacDonald (604-882-3820) to see if this site is in use.



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

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historians may say four centuries from now as they look back at our time and the revolution in cosmic view that is currently underway.

On October 25<sup>th</sup>, I joined a number of people who came out to celebrate the 40<sup>th</sup> anniversary of the H.R. MacMillan Space Centre. David Rodgers, its founding Director, has included his account of the event in this Nova, which I hope you have the time to read. While I was busy with this event, Wayne Lyons and a crew of vol-

unteers were up at the AOMO, carting away debris and cleaning up the site for the coming year. Earlier in the month, Bill Burnyeat delivered a public talk at the Roundhouse and a number of us set up our telescopes outside for some sidewalk astronomy.

I remember when I first joined Council, I insisted that I wasn't "qualified" to lead, but at the insistance of some Council members including Craig Breckinridge, I have to agree that Council work is less about observing and more about dealing with administration and the variety of challenges that have come our way from National. As a team, we have navigated our way to emerge as a local charitable organization and our ties with National are increasingly administrative. We are keeping an eye on some significant changes which include the possible sale of National's property at 136 Dupont Street in Toronto and changes to treatment of Life Members, since annuity transfers to Centres for

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### For Sale

CELESTRON 10" Dobsonian Telrad reflex sight Televue 2x Barlow

Celestron 25 mm eyepiece, plus a 10 mm and 11/4" wide angle, 2 yellow & 2 green eyepiece filters. \$500

John Tanner longjohn@cranberrycommons.ca 604 261-4848

Any inquiries after November 23rd please.

continued from page 4 attached life members are deemed by National to be no longer possible.

With the help of volunteers, membership and our generous donors, RASC Vancouver Centre is poised to make an exciting impact on amateur astronomy in the coming years.

I hope I have served you all well and am happy to have been able to contribute to our success todate.

Best wishes,

### Pomponia ★

continued from page 2 able to put on our many activities and programs.

Next year is the International Year of Astronomy and right now Ron Jerome and is working along with other interested groups in our communities and across Canada. He will need your support to make IYA 2009 a special year for Astronomy. \*\*

### LIBRARY

The centre has a large library of books, magazines and old NOVAs for your enjoyment at the GMSO. 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 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 Bob Parry, Director of Telescopes in the meeting room of the GMSO after the members meetina. All telescopes are to be picked up and returned at the GMSO. 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 two different telescopes per year and use what is left at the end of the meeting anytime. Bob can be reached at 604-215-

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 Friday/Saturday nights. Contact Jason Rickerby at 604-502-8158.

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

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**December** 

January

10 – Jaymie Matthews: "If Galileo has a Space Telescope." Saturday @ 7pm at the HRMSC Auditorium.

### **Using Computerized GOTO Telescopes**

by Bob Parry

Introduction

During the last 20 years, microprocessor control of telescope has progressed from the high-end, very expensive custom-made mounts to systems now being available on low-cost beginner telescopes.

The way that they operate is very similar among most brands of mounts. The control systems can trace their origins

back to an article published in *Sky and Telescope* in February, 1989 by Toshimi Taki. This program uses two stars of known coordinates and does all the fancy math to allow the mount to track and find objects correctly. Almost all the Meade, Celestron and the Chinese-made brands use variations on this algorithm to guide the

scope and allow you to find the ob-

ject that you are interested in.
Course Contents

The Vancouver Chapter of the RASC will be putting on a free course on how to use computer-guided and controlled telescopes. The main focus will be on the Meade LXD-75 mount that is used in our Telescope Loaner Program. The course will also show how continued on page 7

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lished my first articles on astronomy (about the close opposition of Mars and the Perseid meteor shower) as a teen-ager working at the Regina Leader-Post in the summer of 1956.

The Planetarium was a \$1.5 million gift to the City of Vancouver by lumber magnate H.R. MacMillan. The City decided to add it to the Centennial Museum, then under construction on Kitsilano Point, much to the annoyance of the Park Board, which would have preferred a stand-alone planetarium in Queen Elizabeth Park. (The Bloedel Conservatory was later built where the Planetarium would have been.)

There was little interest in astronomy when I arrived in Vancouver. So, with the help of staff members such as Jim Wright and Bruce Smith (both now deceased) and Robert Allin, we set about developing that interest. Here's where my experience in broadcasting and journalism came in handy. While construction proceeded on the new building, we spoke at school assemblies,

cub and scout meetings, service club luncheons, church suppers and professional gatherings. Throughout the winter and spring of 1968, we gave slide presentations two or three times a week describing what the Planetarium would be like and what it would do. The result was that as the October official opening approached, public interest in it exceeded interest in the adjacent, and much larger, Centennial Museum. This led to a resentment that lasted many years.

Still, building the two institutions together was a benefit for us. It meant that most of HR's donation could be dedicated to the Planetarium theatre and its equipment—instead of the structural and service facilities required of a stand-alone building. Among its attributes are a gently sloping floor, low horizon, omniphonic sound system and the remarkably realistic Zeiss-projected sky. Together they make it the finest classical planetarium theatre in the world.

Opening day was Saturday, October 26, 1968. The autumn sun shone, as a huge crowd watched Mayor Tom

Campbell and H.R. MacMillan cut the ribbon and unveil the dedication plaque. Then the MacMillan family was ushered into the planetarium theatre to attend our first-ever production. It was "The Way of all Stars," a 45-minute multi-media documentary detailing how we had learned where we are in the universe. I sat with the MacMillan family. So the honour of presenting the first show fell to John Tanner, a popular local disc jockey and amateur astronomer. (John still works at the Planetarium.)

And so we were well and truly launched. There were growing pains, of course, as we grappled with both the capabilities and limitations of the Planetarium as a communications medium. Yet within a few years, the H.R. MacMillan Planetarium became recognized as one of the finest in the world.

I chose to leave in 1980 to pursue other opportunities. It's been nearly 30 years since I worked there. But I can truthfully say that those 13 years as its Director were the most extraordinary in my life. \*

R

In spite of our usual winter weather, the month of October has been pretty busy at the Antony Overton Memorial Observatory. Bob Parry took possession of a used CCD camera on the 10th of the month and Eric Fuller helped out with a training session at his home to check out the new camera. He and Bob came out to the observatory later on in the month to bring the camera into focus and take our first images with it. We're now at the mercy of Mother Nature and her familiar pattern of west coast winter weather.

Due to commitments to his work, Craig Breckenridge has been unable to devote the time he would like to the CGRT program and his many other contributions to RASC – Vancouver Centre. I will be helping out to coordinate training with both of our observatory programs and Craig will be available to help out when we need his expertise.

A presentation was made at our October planning meeting on the direction of the observatory. RASC – Vancouver Centre has accepted a commitment to support the AOMO toward the advancement of astronomy within Metropolitan Vancouver. We will continue providing hands-on training in observatory operations and astrophotography with a goal to provide amateur research support (supernovae, variable star and occultation work).

The work party on October 25th proved to be very productive. There

were six members and two guests at the site to help take down the Art Holmes observatory and clean up the site. We washed down the Dome and the outside of the observatory and it's looking much better. Thanks again to Harvey Dueck, Mark Eburne, Alan & Dale Jones, Russell Lyons, David Sanghara and Brett Spratt for their assistance. We are looking forward to IYA 2009 and we are planning to have a special activity ready for June.

NOTE: There will be no AOMO or CGRT training sessions for the month of December. Qualified operators may submit observing projects for consideration. Regular training will resume in January. \*

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the Meade ETX operates. The ETX is on a fork Alt/Az mount while the LXD 75 is a German Equatorial mount. We will show and tell you the difference between the two mounts and how to set up and find objects using these telescopes.

If you have one of these types of scopes—it does not have to be a Meade—and you want to learn how to use it better, then bring it to the class and we will help you get the most out of your scope. As well, if you are a beginner to computerguided and controlled telescopes and interested in using one of the loaner scopes, this course will be a requirement for borrowing one.

The manual for the LXD-75 is available on Meade's website at http://www.meade.com/manuals/index.html I would recommend that participants download the manual and read over the setup and alignment procedures before the class starts.

Dates and Location for the Course

The dates for the course are the last two Thursdays in November (that would be the 20th and 27th of November) at the GSMO starting at 7:30 PM and will last approximately 2 hours each. The GSMO is the observatory at the Planetarium. There is no charge for this course. Weather permitting, we will set up the scopes and do some observing. The course will be held regardless of the weather and most of the learning will not require stars.

Hope to see you there.

The best way to reach me is at robpar@telus.net **\*** 

Course Outline for "Using Computerized GOTO Telescopes"

Introduction of the LXD-75 Mount:

- 1. Mechanical set up of the mount
- Mounting and balancing the Optical Tube Assembly
- 3. Electrical connections
- 4. Aligning with North
  - a) Aligning the Finder Scope

- b) Using Polar Alignment Scope
- 5. Putting the mount into "Home Position"
- 6. Types of Auto Alignment
  - a) Single Star Alignment
  - b) Easy Alignment
  - c) Two Star Alignment
  - d) Three Star Alignment (GEM Mounts Only)
- 7. Menu system and navigating the maze
- 8. Tips on using the system
  - a) Speeding up and slowing down scroll rate
  - b) Guided tours
  - c) Updating software
  - d) The Calibrate Motors Gotcha
- 9. Using Autostar with a computer
  - a) AutoStar Suite
  - b) Sky 6
  - c) ECU
  - d) Sky Charts (Cartes du Ciel)

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Proud To Serve Vancouver's Astronomical Community



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