

NOVA

NEWSLETTER OF THE VANCOUVER CENTRE RASC | VOLUME 2009 ISSUE 2 | MARCH/APRIL 2009



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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.

Mar. 12: Dr. Howard Trotter of SFU: Galileo Galilei's Renaissance Window on the Cosmos.

Apr. 9: Dr. Christian Marios of the DAO: Direct Imaging of Multiple Planets Orbiting the Star HR 8799.

May. 8: Roger Bailey of Victoria: Timelines.

Next Issue Deadline

Material for the May Nova should be submitted by Monday, Apr. 27, 2009. Please send submissions to:

Gordon Farrell (gfarrell@shaw.ca)

Title image: Jason Rickerby

IYA 2009 Diary – Jan/Feb

by Wayne Lyons

Vancouver Centre rung in the year on January 10th, as did all of the major RASC centres across Canada, with a presentation and kickoff event. Dr Jamie Mathews presented “What if Galileo had a Space Telescope” to an audience of well over one hundred people at the H.R. MacMillan Space Centre on a dismal Saturday evening. Dr Mathews kept four hundred years of technical development in the telescope to a level the novice astronomer could understand and brought us up to date on the accomplishments of space telescopes. With over three hundred known large exoplanets, it was exciting to hear about plans for large Earth-based telescopes and the search for the first Earth-sized planet.

On January 18th, Bob Parry, Mark Eburne and I took advantage of a clear sky and hiked up to AOMO to do some imaging (see AOMO Report).

I attended one of the week-long Human Orrey project sessions put on by Peter Newbury at UBC on January 20th. About twenty-five students demonstrated planetary motions and the scale of our solar

system. On the Friday, Jason Rickerby was fortunate enough to set up a telescope and find Venus for the group.

Dr. Howard Trotter presented his IYA 2009 kickoff talk, “Galileo Galilei's Renaissance Window on the Cosmos,” on January 27th at SFU to an audience of close to one hundred people. Dr. Leigh Palmer from SFU brought in his replica of a Galileo telescope. After viewing through that instrument it made me wonder how Galileo managed to use it in changing the course of history. The evening also included talks by a few amateur astronomers present about their equipment and what they enjoy about their hobby.

January 30th saw a presentation by Suzanna Nagy and Alan Jones at the Roundhouse Community Centre to introduce a group of forty amateur astronomers to the Night Sky. Earlier in the evening, we managed to grab a few quick glimpses of the Moon and Venus through sucker holes in the heavy cloud cover. The skies cleared up after the presentation and we had our 16” telescope available for that group and another thirty-five

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There has been activity with our enthusiastic core group of members at our observatory in Maple Ridge. Even with the heavy snowfall this winter, there has still been time for us to get together and make plans for the next good observing night. I am really grateful for the help and support of this group.

At the January Council meeting, approval was granted to purchase a laptop computer and software for use at the observatory and at public outreach presentations, and the following items have been purchased to upgrade the observatory's computer system:

- Computer: Dell Inspiron 15 Laptop
- Software: MaxIM DL (SLR) Version 5 and MaxPoint

We have also made a commitment to hold an Open House at the observatory this Spring as part of our IYA contribution. Work parties will be scheduled soon.

The heavy snowfall of last December is still around and seems to linger on the short secondary road to the observatory like a hanging glacier. I hope we will be able to

drive up there soon. Until then, it's a short fifteen-minute walk from the main road.

On January 18th, Bob Parry, Mark Eburne and I took advantage of a rare clear winter sky and did a night hike to do some imaging with the SBIG ST-8 camera. The snow was a little soft and at times

yard street lights. This still gives us a good environment to become familiar with the new programs and learn to use the equipment.

Alan Jones has been working with the Finger Lakes Imager and has said it has been working consistently. A thorough check of that imager will be necessary to see if it can still be useful.

Another project that needs attention is our website. We would like to make it a useful communication tool. Unfortunately, this is an area that has been difficult to find time to work on. Volunteers are welcome!

As part of our IYA activities there will be two Galileo Moment observing ses-



Wayne and Bob in the AOMO dome

we would break through the crust. It made us wonder whether it was worth our efforts but after a short evening of imaging we decided that it was. Bob managed to take images of the trapezium in the Orion Nebula.

We are continuing to hold training sessions for those interested by making use of Mark Eburne's equipment in his front yard. The challenge is to observe through the nebulosity surrounding his front

sions at Yennadon Elementary School in Maple Ridge on March 6th and March 13th (please read: IYA Diary - Jan/Feb). Your volunteer help at any of these events is appreciated.

Please remember that I do try to hold observatory training sessions on a weekly basis. If you are interested in checking out the observatory or becoming involved with its operation, please make a phone call or send an e-mail. ✪

Council's Message

It is with regret that Council has accepted the resignation of Jason Rickerby as President of our Centre. Increased responsibilities at work have significantly reduced the time available to him for other activities. He has agreed, however, to fill the role of Vice President for the remainder of the year. We thank him for his continuing contribution and hope that he will find occasions to pursue his considerable interest in astronomy.

At the March Council meeting it was agreed that the duties of President will be shared by Pomponia Martinez, our Immediate Past President, and Ron Jerome, the Centre's IYA2009 Coordinator. We have also lost the services of Vic Baker, our LPA Coordinator. Our thanks go to Vic for his efforts.

March is going to be a particularly busy month for IYA activities. We have partnered with a number of local organizations and will be contributing time and resources to a number of initiatives:

- Simon Fraser begins its Science Outreach Program, which includes a series of astronomy workshops

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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.

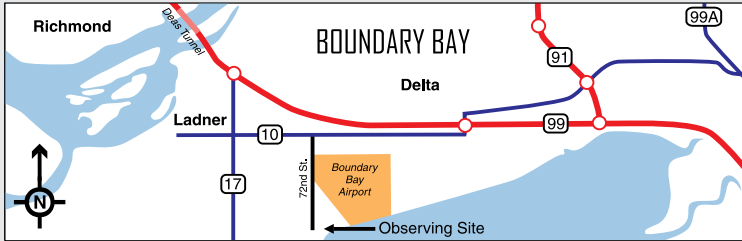
Advertising

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.

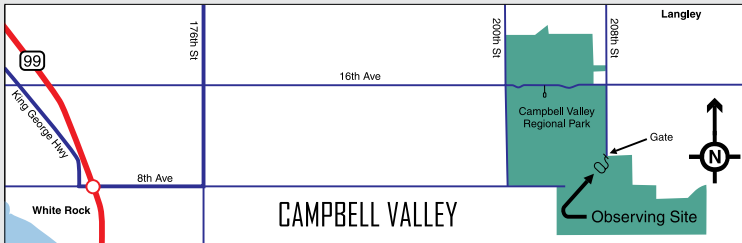
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1/4 Page: \$15.00 per issue
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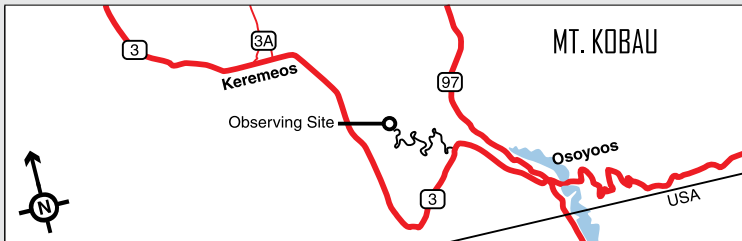
OBSERVING SITES



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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beginning March 6 and running until the end of the school year;

- BCIT will host a weeklong series of astronomy lectures over Spring Break in its Planetarium facility at the Burnaby Campus;
- On March 14th, 18th and 21st, RASC members will be in attendance at the Space Centre with telescopes at

hand to host evening viewings beginning at 8:00pm;

- On March 21st as well members will be attending Metro Parks Night Quest, a family event from 7:00–10:00pm at Pacific Spirit Regional Park in the UBC Endowment Lands;
- March 28 will find us again working with Metro Vancouver Regional Parks as well as the Fraser Valley

Astronomers Society and the H.R. Macmillan Space Centre at a family event within Aldergrove Lake Regional Park. It will be our first public Messier Marathon.

SUPERNOVA, our new educational video series, premiered on YouTube last month. Episode 1 features Craig Breckenridge of Dynamic Struc-

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tures and The Thirty Meter Telescope, RASC Vancouver's own Bob Parry, Director of Telescopes, introducing the power of amateur telescopes, and *Discovery*—a segment that highlights the constellation of Orion and observing it with the unaided eye or binoculars. It is linked to Vancouver Centre's website and we encourage you to have a look at www.rasc-vancouver.com – Supernova.

Episode 2 will follow shortly and include interviews with Dr. Jaymie Matthews and Harry Klassen, both discussing stars as astronomical targets while Ursa Major will be the featured constellation. Tyler Gamsby, Shannon Hartley, Cameron Widden, Eric Dunn and Bill Burnyeat, all RASC members, contributed to its success. We also want to congratulate the other contributors for their outstanding effort.

Our observatory activities—AOMO and CGRT—deserve a few comments. Wayne Lyons has built a local astronomy group in Maple Ridge which has dedicated a considerable amount of time to learning the art of astrophotography. Using CGRT as a springboard

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LIBRARY

The centre has a large library of books, magazines and old NOVA's 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://rasc-vancouver.com/> or
<http://www.rasc.ca/vancouver>

Details of upcoming meetings and events can be found at our Meetup group at:

<http://astronomy.meetup.com/131/>

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 Bob Parry, Director of Telescopes in the meeting room of the GMSO after the members meeting. 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 604-215-8844.

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.
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604-738-2855

January

30 – Exploring the Night Sky @ the Roundhouse

March

14, 18, 21, 28 – Explore the Night Sky – 8pm @ GMSO
16-20 – Learn About the Night Sky – BCIT @ 11am
28 – Messier Marathon I at Aldergrove Lake

April

27-May 3 – International Astronomy Week

May

2 – Astronomy Day
29 – Galileo Presentation @ Roundhouse Community Centre

August

13-16 – GA 2009 in Cypress Hills, Saskatchewan
13-14 – Perseid meteor shower
15-23 – Mt. Kobau Star Party

September

12 – Paul Sykes Memorial Lecture
12-15 – Merritt Star Quest

December

10 – AGM

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and supported by the purchase of newer camera, computer and software, there is now an active program of observing and photography at the AOMO facility. Interested members can contact Wayne for more information.

Images taken from CGRT New Mexico and Pingelly are now being transferred to CADC in Victoria to be indexed and made accessible for image processing. Wayne, Bob Parry, Craig Breckenridge and others spent hours learning the techniques for operating a remote telescope and acquiring images. This effort, along with AOMO, will serve as the basis for a future course we want to offer covering astrophotography. CGRT has been temporarily decommissioned by Chris Graham. His contribution of equipment and

viewing time made it possible for us to reach our current level of expertise and we are very grateful for his generous contribution.

Our Outreach activities are garnering increased attention. In particular, we started a program of lectures at the Roundhouse Community Centre about two years ago. Member talks have been followed by observing session in the adjoining park. We have seen the attendance rise from five at the first session to forty-two at the latest, plus seventy interested observers. As always, more telescope are better.

For our IYA activities we have received a variety of materials from National for distribution to participants. These include a series of cards with a variety of celestial photographs, a storybook to help promote thoughtful light-

ing practices, star charts and a combination observing guide and workbook. Much of this is designed to catch the attention of youth and to pique their interest in astronomy.

More features and information are being added to our website, including links to our observatory and related activities as well as administrative items such a Council Minutes and our By-Laws. As always, we invite your input.

This will be a busy year and if you can contribute a few hours to any of efforts to achieve more “Galileo Moments” please contact any member of Council.

- Ron Jerome, Acting President
- Pomponia Martinez, Immediate Past President
- J. Karl Miller, Trustee ✨

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members of the public to observe the night sky. We managed to show them the Andromeda Galaxy, the Orion Nebula and the nice white double star Mesarthim (Gamma Arietis). Thanks again to Cameron Widen, Henry Neil and Leigh Cummings for helping out.

I was happy to help David Dodge at the Jewish Community Centre on February 16th with a presentation to about a dozen seniors. David talked on a bit of the mythology and history of astronomy and then worked up to our present day knowledge of our Solar System. I put together images of some well known telescopes and images I enjoy viewing for my part of the presentation. I had been able to pick out the planet Venus at noon on the day before our presentation. I was hoping we would be able to find the planet for the group but clouds had returned that Monday afternoon and we were unable to do any observing.

After planning observing sessions on February 16th and then again on the 17th, Howard Trottier and Gwen Eadie with the SFU Astronomy Club finally got consent from the Gods and managed to hold an observing session at SFU on February 18th. More details of this event can be found on the Starry Nights @ SFU website.

On Friday, February 20th I set up the 16" telescope at Pitt-Addington Marsh with Alan Jones and Leigh Cummings and we spent the evening observing the easier dark sky objects we could pick out. I was

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Solar Eclipse Tour in China

July 15 – 25, 2009



Don't miss the longest total solar eclipse of the 21st Century on July 22, 2009. This will be a total eclipse of the Sun with a magnitude of 1.080 that will be visible from a narrow corridor through central China and the Pacific Ocean. Totality will last for up to 6 minutes and 39 seconds, and will be visible in many cities including Shanghai.

Tour includes:

- International airfare from Vancouver
- Domestic flights within China
- Eclipse Event from Shanghai
- Visit to the Shanghai Astronomical Observatory (SHAO) - Sheshan Station
- Great Wall of China
- Terra Cotta Warriors (in Xian)
- Tiananmen Square

\$ 2399 plus tax (based on double occupancy)

- early booking bonus ends March 15
- \$2449 when booked before April 15

www.FlyForLess.ca/SolarEclipse
for more details.



1-866-656-3761

*If your travels don't take you to China this summer, we also offer **cheap flights** across Canada, to the USA, and around the world.*

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able to star hop to M50, a small open cluster of stars in Monoceros. The cluster is bright but a bit difficult to observe because of the large number of stars in the surrounding Milky Way. The transparency and seeing were both around 3/5 and the Limiting Visual Magnitude was 5.0 that evening.

Suzanna Nagy repeated her Introduction to the Night Sky presentation to a group of 15 members of the SFU Student Astronomy Club

on Thursday, February 26th. It is nice to know that there are young people interested in astronomy.

An IYA 2009 Galileo Moment was held at the Mennonite Educational Institute in Abbotsford on Friday, February 27th. Over one hundred people attended to observe a beautiful conjunction of a three day old waxing crescent Moon and the planet Venus. The planet was only one and a half degrees west of the Moon and sported an identical crescent

phase. I was also able to locate the fuzzy glow of Comet Lulin about one degree west of Regulus.

Events to come:

March 6 & 13: IYA 2009 Galileo Moment, Yennadon School, Maple Ridge

April 21: Scout Night Hike, Pitt Meadows

April 24: Kid Friendly Astronomy Talk, Sechelt, BC ✨



Students at UBC form a human orrey on the floor of the Irving K Barber Learning Centre, tracing out the orbits of Mercury, Venus, Earth, Mars, Jupiter and Saturn.

In this issue, I will review a new DVD addition to our library. We now have a video of the Fall 2008 Merritt Star Quest star party. The video is approximately 50 minutes long and covers a bit of how the star party came about and what happens there. If you have never been to a star party (away from the city to get dark skies), then you might want to see this video to get an idea of what it's all about.

The video is broken into 11 chapters and the end credits.

Chapter 1 is an introduction to star parties by Paul Greenhalgh (of the Fraser Valley Astronomical Society), who provides a good overview of what a star party is and what happens at a star party.

Chapter 2 introduces Larry LeBlanc (a salesperson at the Vancouver Telescope Center) with a discussion of various telescope types and mounts.

Chapter 3 features Harry Klaasen (RASC-VC) and his impressive C-14 14-inch telescope, it's ED80 finder scope and all sorts of interesting systems he has on his scope. Also seen is his Hydrogen-Alpha Solar Filter for his C-14 and Mylar Filter for the ED80 finder scope.

Chapter 4 features Nicole Bienvenu and Rene Van Den Elzen's 16-inch metal-truss tube Dobsonian telescope, which can be disassembled for transport. The top end (holding the eyepiece and finder scope) can rotate to a more convenient position.

Chapter 5 shows a home-made equatorial wedge for a GoTo CPC 11 telescope with GPS featuring eyepiece holders.

Chapter 6 has James Kanester (Vernon RASC) showing off his EQ6 mount and 80mm scope featuring his SBIG CCD astrophotography setup.

Chapter 7 features Mark Eburne (Fraser Valley Astronomical Society) showing off his 8-inch Meade LX200. It has an ED80 guide scope on a homemade mount. The scope also has GPS as well.

Chapter 8 features a collapsible 10-inch Sky-Watcher Dobsonian scope. This telescope is covered with a variety of interesting stickers, however it does not appear to have a RASC sticker.

Chapter 9 features RASC-VC's own Ronan Kerr (Youth Astronomer), the Grand Prize Winner of the Merritt Star Quest Fall 2008 and his new

12-inch Dobsonian Telescope.

Chapter 10 features a return of Paul Greenhalgh (FVAS) showing off his Sky-Watcher 6-inch refractor telescope on an EQ6 computer-controlled mount. Also seen is Gary Hargreaves 3-inch refractor, finder scope and mount (but no Gary).

Chapter 11 shows James Black's Celestron CGE 14 14-inch scope plus a Takahashi 60mm refractor guide scope, featuring a Kendrick heater, microtouch focuser and 420 Films Photoscope. This scope also features a nice coloured body.

It all ends with the credits featuring more on the origins of the Merritt Star Quest and credits for the many photos. The video has many great astronomical photos (both amateur and professional throughout).

I will end with, "Yes, you can teach physics to a doggie!" For details, watch the video. This DVD is available for loan from the RASC Vancouver Centre library. ✨



Crescent Moon and Venus

Cameron Widen

Nikon D50

27 February, 2009



M42

Bob Parry

AOMO

7 seconds Clear, Red & Green; 10 seconds Blue

Proud To Serve Vancouver's Astronomical Community



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