

# NOVA

NEWSLETTER OF THE VANCOUVER CENTRE RASC | VOLUME 2010 ISSUE 4 | JULY/AUGUST 2010

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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 Ray Whittick Lounge.

**Jul. 8:** JPL-produced film: "Explorer 1: Beginning of the Space Age."

**Aug. 12: CANCELLED**

**Sept. 9:** Pascal Lee of the Mars Institute (awaiting confirmation).

## Next Issue Deadline

Material for the September Nova should be submitted by Monday, Aug. 30, 2010. Please send submissions to:

Gordon Farrell (gfarrell@shaw.ca)

Title image: Jason Rickerby

## Short Nights and Summer Astronomy

by Wayne Lyons

The Summer season is here once again but where is it? I've been patiently waiting for those cold and damp evenings of winter to give way to the warmth and dryness of summer. Here it is, just one week before our 143<sup>rd</sup> birthday, and there has not been a decent stretch of clear weather since the 2010 Games. I'm ready to remortgage the home and book a cruise to Tahiti for the solar eclipse on July 11. The weather has taken its toll on observing time but it will change and we will get an opportunity to get to enjoy the evening sky again.

The unsettled weather of spring makes it difficult to make long-range observing plans. Most observers will take the opportunity to get out under a clear sky whenever it

is available. With a promise of clear, steady weather to come, it is time to do some planning and get out to share some time with fellow amateur astronomers.

We are fortunate in British Columbia to have a large group of people interested in our hobby. With five of the twenty-nine RASC Centres and a good number of smaller astronomy clubs, there are many opportunities to get out to observe, share the night sky and meet new friends with the same passions as yourself.

The list of Upcoming Events in this edition of NOVA is a sample of the activities happening in our province over the next few months. I hope you will take an opportunity to get out and enjoy the night sky. ✨

**NOTE: The August meeting is CANCELLED due to the date conflicting with the Mt. Kobau Star Party. We will meet again on September 9.**

Centre members please take note of the following:

**There will be NO Members' Meeting in August.** Holiday schedules and Star Parties have made it difficult to arrange speakers.

We will be holding our **September 18<sup>th</sup> Astronomy Day** functions at **Simon Fraser University**. Our agenda will be similar to our usual format with talks by members during the day and our featured speaker—Dr. Jim Whiteway of York University—in the evening. Dr. Whiteway was the Principal Investigator for the Canadian weather package that went to Mars aboard the Phoenix Lander. Weather permitting, we will have telescopes set up after the talk.

The speaker for our regular September meeting is still to be determined but we are hopeful that Dr. Pascal Lee will be able to attend.

We will keep you posted both on our website and by way of Meetup.

Please review the list of activities scheduled for this summer prepared by Wayne Lyons. If you are able to attend and help with any of them, please contact me or anyone on Council. Your support is extremely valuable. ★

## President's Message

Thank heaven for the World Cup. I have needed a good excuse to stay up late. Now, with late night replays, I have it and, with only a slight stretch, my viewing does have the earmarks of "stargazing". The way I see it, each team is a star cluster, some globular and some open. They are all in orbit around South Africa and obey certain basic laws, i.e. those laid down by FIFA. The individual members of each of these star clusters can be viewed in terms of the Hertzsprung-Russell diagram, an analogy that applies to the teams themselves. It appears, for example, that many of the South American teams, as well as the Germans, are on the upper left hand side of that curve, while the French and the Italians fall on the lower right slope. There seems to be a good correlation between their age and brightness and it is reflected by the way they display their skills in our field of view. A couple of the clusters went supernova—the South Africans and the Slovaks. They each experienced a momentary brilliance but are now completely burned out.

Under FIFA's laws, pairs of  
continued on page 4

## 2010 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.

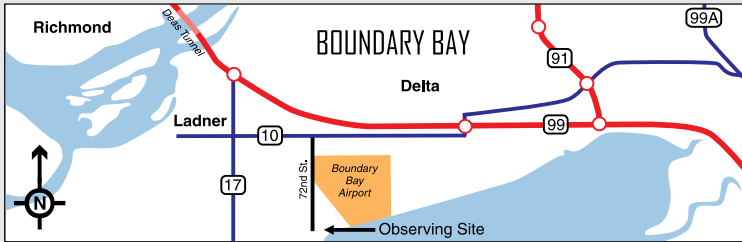
## Advertising

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.

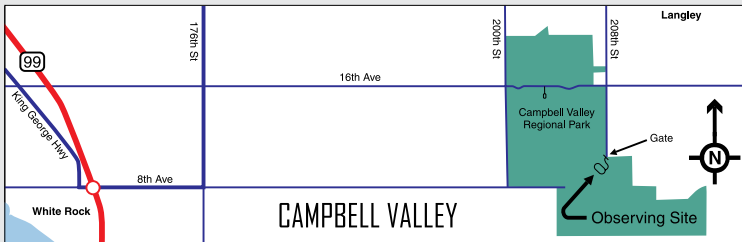
## Commerical Rates

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 camera-ready files. Payment, by cheque, must accompany ad material. Make cheque payable to:  
RASC Vancouver Centre.

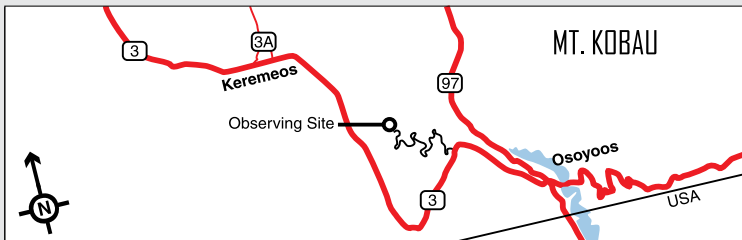
# OBSERVING SITES



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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these star clusters fall under the gravitational influences of one another. During these encounters, there are periods of intense tidal interaction, the final outcome of which is that one of two is spun out of its South African orbit. Those that remain are destined to experience repeated engagements until only one is left in orbit (there are certainly

Darwinian elements to these events as well).

Interestingly, this process follows a predictable four-year cycle. The remnants of the star clusters that are flung out of orbit gather themselves together again over that time frame and eventually are found orbiting a new location where this cycle is repeated once again.

To best simulate the full

astronomical feel of these events, I suggest taking a small refractor to the end of a darkened hallway. That will create the feeling of distance. Pointing it at a small TV would be a good way to relate to the size of distant objects but, with the plethora of HD big screen TV's, it just may not be possible. To be a real purist, the eyepiece image should be

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reversed or inverted but I am going to suggest it is ok to use an erecting prism between the telescope and the eyepiece to create a more familiar view. This reconstructive effort needs to be fun, not torture. Finally, with a comfortable viewing chair, a thermos filled with a warm beverage and a box of astronomer's favourites—Tim Bits—you have created a pretty good simulation. At the moment, this is a very satisfactory alternative to the cloud-covered night skies outside. Happy "Star" Gazing!



– Ron Jerome

## Want Ads

One Rasc Member Bringing Full Size Van to Mt Kobau for Aug 10th to Aug 15th. Looking for second to share gas and other expenses. Have two man tent, cook gear, stove, ice chest. Leaving from North Vancouver and willing to pickup in Vancouver, North Shore, Burnaby and parts of other areas. Dates have some flexibility.

John Neufeld  
604 986 1925  
jhenry\_neufeld@shaw.ca

## 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/> 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.**  
**V6J 3J9**  
**604-738-2855**

**RASC Vancouver Centre  
Observatory**

Malcolm Knapp Research Forest  
Maple Ridge  
Saturday, July 10  
8pm – midnight

Public observing session at the arboretum at the Malcolm Knapp Research Forest in Maple Ridge. The arboretum is a short walk from the parking lot at the main gate. There will be tours of the observatory for those interested.

Information posted on Meetup:  
<http://www.meetup.com/astromy-131/>

**Astronomy Art Show**

The Silk Purse  
West Vancouver  
Saturday, July 17  
8pm – 11:30pm

Silk Purse has an “Astronomy” show in the gallery from July 13–25. RASC Vancouver Centre will have a presentation on Saturday, July 17th at 8:00pm. After the presentation, and weather permitting, there will be observing in the park.

**Starry Nights @ SFU**

Academic Quadrangle at SFU  
Monday, July 19, 8pm –  
Thursday, July 22, 11:30pm

Starry Nights @ SFU will be planning an observing session on campus on the first clear evening between Monday, July 19th and Thursday, July 22nd. Free parking is available for members that are able to bring along a telescope to share with the public. Please watch the website for further information.

**Mt. Kobau Star Party**

Mt. Kobau,  
Osoyoos  
Saturday, August 7, 12pm –  
Sunday, August 15, 8am

Mt. Kobau has a reputation as a star party for serious observers. That doesn't mean no fun allowed; nor does it mean you have to be a grizzled sky-veteran to enjoy the experience. The fresh enthusiasm of a fired-up beginner fits right in. Just give proper consideration to the trials Kobau may put you through... and when you come, come prepared!

<http://www.mksp.ca/>

**Perseid Meteor Shower**

Aldergrove Lake  
Abbotsford  
Wednesday, August 11  
8pm – 4am

Aldergrove Bowl is a great venue for watching the summer's best meteor shower, the Perseids. This annual celestial event is expected to peak between 2 and 4am when you may see up to 50 meteors per hour. Take a guided constellation walk, and hear tales of the mythic Greek hero Perseus. Participants must arrive before 11pm, but can leave at any time. Bring a flashlight, tent, warm clothing, snacks and blanket to help you enjoy the celestial show above. \$2/person. Registration not required.

Information: 604-530-4983

Offered by Metro Vancouver in partnership with Royal Astronomical Society of Canada (Vancouver Centre).

**RASC-Victoria –  
The RASCals Star Party**

Metchosin Cricket Field  
Metchosin  
Friday, August 13, 12pm –  
Sunday, August 15, 12pm

Lat: 48° 23' N; Long: 123° 32' W Elevation: 50m

The RASCals Star Party has a well-deserved reputation of being a fun and easy-going camping and observing weekend which the whole family can enjoy. Our friendly group of dedicated volunteers will ensure this positive experience will continue for this year's event!

The new location is the Metchosin Cricket Field, which offers us one of the darker urban areas in the western communities near Victoria, and gives us good sight lines in all directions.

Check website for further information:

<http://victoria.rasc.ca/events/StarParty/Default.htm>

**RASC-Sunshine Coast – Astronomy in the Park**

Porpoise Bay Provincial Park  
Saturday, August 14  
3pm – 1am

This is a day for family fun with astronomy and this year we'll have our two brand new solar telescopes available for viewing the sun in the afternoon, fun activities for the kids, astronomical displays and info on how to join the Royal Astronomical Society! At dusk there'll be a multimedia presentation in the amphitheatre followed by dark-sky viewing in the park picnic area. This is a free family event. Everyone welcome. Weather permitting.  
<http://www.coastastronomy.ca/events.html>

**Starry Nights @ SFU**

Academic Quadrangle at SFU  
Monday, August 16, 8pm –  
Tuesday, August 24, 11:30pm

Starry Nights @ SFU will be planning an observing session on campus on the first clear evening between Monday, August 16 and Tuesday, August 24. Free parking is available for members that are able to bring along a telescope to share with the public. Please watch the website for further information.

**Starry Night**

Deas Island Regional Park  
Saturday, August 21  
7pm – 10pm

This is another MetroParks event that RASC Vancouver Centre were involved with last year and have agreed to assist with again this year. It is a family-oriented evening involving music, stories and events for the youngsters as well as some stargazing and presentations by the RASC.  
<http://www.metrovancouver.org/region/calendar/Lists/Calendar/DispForm.aspx?ID=1123>

**Open House at Breckenridge Astronomical Ltd.**

Breckenridge Astronomical Ltd.  
Burnaby  
Saturday, August 28  
11am – 4pm

Open House at Breckenridge Anderson Astronomical Ltd. This will be a great opportunity to see and learn how to build a large telescope with their huge mirrors. Our host for this event, Craig Breckenridge, knows one or two things about this fascinating subject; after all, Craig helped build quite a few large telescopes located in prime locations around the world, including the famous 30-Meter Telescope. The event will take place at the his facility at: #6 - 8980 Fraserwood Court, Burnaby, BC (a block south of Boundary and Marine).

**15th Annual Island Star Party (ISP)**

Bright Angel Park  
Friday, September 3, 4pm –  
Sunday, September 5, 12pm

Lat: 48° 44.0246' N; Long: 123° 40.5144' W  
This is the 15th annual ISP, so come help to celebrate this milestone event!. The new location is Bright Angel Park located south of Duncan in a dark rural area. Further information on web at:  
<http://www.starfinders.ca/starparty.htm>

**Fall Star Quest 2010**

Loon Lake gravel pit  
Merritt  
Saturday, September 4, 5pm –  
Sunday, September 12, 10am

Each year the Merritt Astronomical Society hosts a large and roomy Star Party! If you're into camping and doing all-nighters under a canopy of stars, observing deep sky objects and the occasional planet then this event is right up your alley!  
<http://www.merrittastronomical.com/>

**Sidewalk Astronomy**

Roundhouse Community  
Centre & David Lam Park,  
Vancouver  
Friday, September 17  
7pm – 11:30pm

Presentation at the Roundhouse Community Centre 8:00 – 10:00 PM with observing on the Sea Walk at David Lam Park (weather permitting). Further information will be posted on Meetup.  
<http://www.meetup.com/astronomy-131/>

**Astronomy Day**

Simon Fraser University  
Saturday, September 18  
10am – midnight

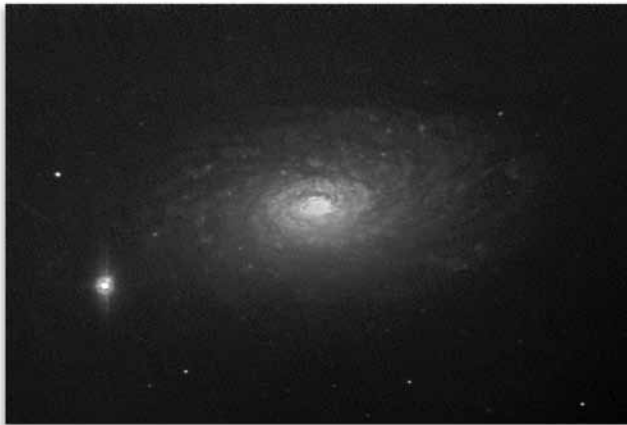
Astronomy Day & SFU Open House/Star Party. Kick off for promotion of a New Observatory at SFU.  
This year's Paul Sykes presentation: "A Laser View of the Atmosphere on Mars." Speaker: Dr. Jim Whiteway of York University was the principal investigator for the Canadian weather package that went to Mars aboard the Phoenix lander. Keep posted on this event at:  
<http://www.meetup.com/astronomy-131/> or  
<http://www.sfu.ca/starrynights/observatory.html>

As I was writing my last report, the mount on the LX 200 at the observatory decided to start showing its age. A chip on the motherboard failed and needed attention. We were fortunate to have Dan Collier volunteer to do the repair work. Dan and Phil Morris made two emergency trips out to the observatory to complete the repair work.

The scope acted up just a few days before the Celestial/Terrestrial event planned by Shaun Dacey and Diane Borsato. The weather cooperated and, due to the large attendance, we set up telescopes in the arboretum at the main gate of the Malcolm Knapp Research Forest for observing the night sky. David Morrish, Doug Montgomery, Gavin McLeod, Howard Trottier, Mark Eburne, Oleg Mazurenko, Ron Jerome and Suzanna Nagy all helped with telescopes and information about the night sky.

Alan Jones, Gayle Lyons,

Masoud Rafiei and I car pooled about 45 interested attendees to our observatory. Thanks to Brett Spratt and Leigh Cummings, we were able to arrange tours of our facility. As a bonus, the UBC Liquid Mirror Telescope was in operation, conducting experiments on



NGC 5055 (M63) the Sunflower Galaxy

RASC V&I, AOMO

the use of the laser for adaptive optics. Those that made the trip were rewarded with a tour of the Liquid Mirror control room.

Here is a link to images—taken variously by Diane Borsato, Amish Morrell, and Shaun Dacey: <http://www.flickr.com/photos/50173531@N02/>

As a result of this event, a work team from the research

forest were at the observatory the following week and cut down about a dozen of the larger trees to improve the horizon.

If the weather does clear up for the weekend, there will be an opportunity for the membership to attend an observing session at the observatory on Saturday, June 12<sup>th</sup>. We will also set some scopes up outdoors for visual observing. Please contact me to make arrangements if you would like to attend.

The open house observing session held on June 12<sup>th</sup> was attended by Mark Eburne and I. We were able to observe for the whole evening. Mark set up his scope on the cement pad outside and imaged the North America Nebula. I hope we'll see some of his work soon.

I managed to image the Ring and M56 that evening. There has been a steady improvement with my imaging at the

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# CCD Imaging Courses at Vancouver Telescope Centre

By James Black

## Basics of CCD Imaging

Introduction to CCD imaging  
CCD equipment  
CCD imaging theory  
Image Processing

## Advanced CCD Imaging

Advanced CCD equipment  
Advanced imaging techniques  
Advanced image processing

## Software Instruction

Maxim DL  
Photoshop  
Student-Instructor laboratory

## Field Practicum

Telescope set-up, balancing/  
polar alignment  
Camera set-up & image capture  
Lab work

**\$99 per section**  
**\$379 complete course**

Online photo gallery  
[www.flickr.com/photos/katmansnaps/](http://www.flickr.com/photos/katmansnaps/)

**Vancouver Telescope Centre**  
2580 Burrard St. Vancouver, BC, V6J 3J7  
Tel: (604) 737-4303 Fax: (604) 738-5717  
[www.vancouvertelescope.com](http://www.vancouvertelescope.com)

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observatory but I will have to wait for some regularly steady skies to tweak the system in order to improve our images.

We will be having an observing session in the

arboretum at the main gate of the Research Forest on Saturday, July 10<sup>th</sup> from 9:00 pm until midnight. At 11:00 pm, I hope to point out a few Messier objects that can be observed with binoculars in our

local skies. Please bring along a telescope to help out and share the night sky with the public.

Check “Upcoming Events” in this edition of NOVA for a list of activities you may be interested in attending this summer. ★



NGC 6720 (M57) the Ring Nebula

RASC Van, AOMO



**M101 – Howard Trottier**

PlaneWave CDK 17-inch astrograph on a Paramount ME mount using an SBIG STL-4020M CCD camera. LRGB frames totalling 105 minutes. Processed using MaxIm DL and Adobe Photoshop.

Chosen as the *SkyNews* Photo of the Week for the week of June 28, 2010.

Proud To Serve Vancouver's Astronomical Community

**WE'VE MOVED!  
COME SEE US AT  
OUR NEW LOCATION!**



# Vancouver Telescope Centre

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