



NOVA

NEWSLETTER OF THE VANCOUVER CENTRE RASC

VOLUME 2004 ISSUE 2

MARCH/APRIL 2004

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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 9: Harvey Richer and Ingrid Stairs of UBC: "A Pulsar, a Young White Dwarf, and the Oldest Known Planet"

Apr 13: Dr. Julio Navarro or U. Vic.: "The Milky Way Galaxy as a Cannibal"

May 11: Evgenya Shkolnik of UBC's Astronomy Dept. on her discovery of a planet that is heating the star it orbits.

Next Issue Deadline

Material for the May Nova should be submitted by Monday, May 3, 2004. Please send submissions to:

Gordon Farrell
(gfarrell@shaw.ca)

Travels to Mars

by Marc Verschueren

The planet Mars keeps getting attention. It certainly was the planet of 2003. The opposition of 2003 gave many people an opportunity to look at Mars at its shortest distance from Earth in 60,000 years. For many, it was their first look through a telescope. That experience was more important. Mars has now gone back to its more usual size in the sky. The masses paid no attention any more, but the politicians did.

One always has to be a little bit careful with a sudden interest in science or technology of the holders of political power. The president of the U.S. announced a new direction for NASA. Such a decision had been expected for a while. NASA is now supposed to prepare for a return to manned flights to the Moon and to Mars—and beyond. The word "beyond" adds some

mystery. It will be difficult enough to reach Mars, if at all possible. This was, of course, a political decision, and because of that it should possibly not interest us here. But we can hardly ignore it. There is always a vague military influence in these space programs. When President Kennedy made his famous announcement of the first voyage to the moon, this was certainly made as a response to the Soviet dominance in space at that time. The American president certainly feared for the military security of the U.S. When Andrew Aitkin gave his talk here about the history of the Apollo Project, as an answer to a question he stated clearly that the Apollo Project was a fluke. The enormous expense was justified because of a strong feeling that the U.S. were running behind in the new

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The Cost of a Dark Sky

by Marc Verschueren

It was a beautiful, clear night last September. Phil Morris and myself went up to Cypress Bowl for some late summer observing. It was an ideal night. We went up to the second parking lot, Phil with his 11" SC and I with my little 6" Newtonian. When we got there, a fellow observer, a stranger to us, had just installed himself. In the dark sky one could clearly see the Milky Way. My small telescope performs so well there I am very pleased with it again. I can barely see M11 from my backyard, only a few kilometres away. Here at 620m above the sea, it comes through with full brilliance.

There were just the three of us, quietly staring in our scopes, nobody else, some comments whispered once in a while, the silent forests around

us. Then a truck of some sort came roaring down the gravel parking lot, high beam lights blazing at us, spoiling our peace. A man descended from this mighty machine and started to inspect the windshields of our cars. This was a pay parking lot. The ticket machine was standing there somewhat further in a corner, evidently a dark corner. The visiting park warden advised us to immediately pay \$5.00 for each car to avoid a parking ticket from him. Here, in the middle of nowhere, on a completely empty parking lot, in complete darkness, the three of us satisfied the demands of the provincial authorities and their budget by exchanging coins with one another to get the right amounts to satisfy the ticket machine. We could hardly operate in the darkness.

It was 9:30pm. The

friendly warden told us that the tickets would run out at 12 midnight, and another \$5.00 would be required to make our stargazing legal til' dawn. He did hint that he might not be driving around at that time anymore. I asked him about the big, big parking lot higher up where there are no ticket machines. No, that is true but that is for the skiers in the winter. I mumbled something about skiers in the winter being more important than stargazers in the summer. It did not impress this faithful enforcer of the Provincial Budget. The dark night could have cost us \$10.00—well, in the end it was only \$5.00. Maybe next time we should join the skiers in their parking lot. ★



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President's Message

Spring is just around the corner and hopefully we will see more clear skies. We have had a few clear nights, but much too soon the clouds or fog have returned. There is a good reason why we try not to plan outdoor public events in the first months of the year; the odds are usually against us. On that note, I want to remind you that on March 20, or alternately March 21, we will again try to hold a Messier Marathon. At the moment, it will be at the Boundary Bay site, on the dike at the south end of 72nd Street, Delta. Other sites might be added if things look hopeful. If March doesn't work out, we can try again on April 17, or alternately April 18.

Another event that I am really looking forward to is "Planet Parade" on March 27. In cooperation with the Space Centre, and weather permitting, we will set up our telescopes in front of the GMSO. The public will be invited to come and view the planets: Mercury, Venus, Mars, Moon (near First Quarter), Saturn and Jupiter. We should start setting up after 6:00 PM, when the bright planets will be visible in the twilight. The Moon will be

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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 \$51.00 per year (\$26.00 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, mailed to the address on page 5, or uploaded to SpaceBase™ at 604-473-9358, 59.

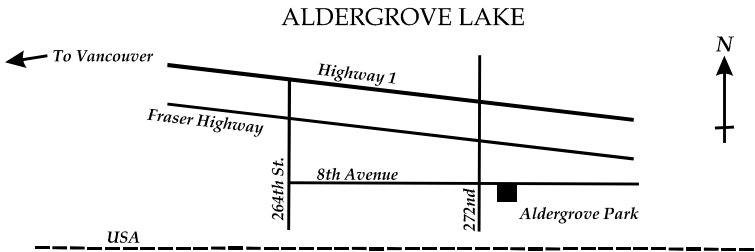
Advertising

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

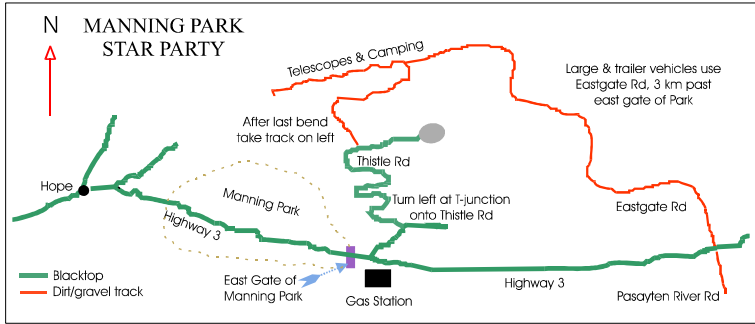
1/2 Page: \$25.00 per issue
Full Page: \$40.00 per issue
Rates are for camera-ready, or electronic files. Payment, by cheque, must accompany ad material. Make cheque payable to: RASC Vancouver Centre.

Observing Sites

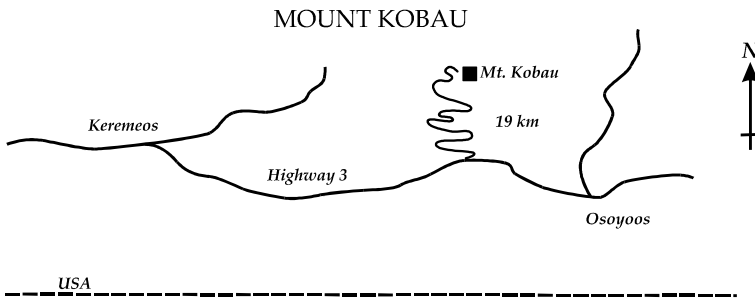


Dale McNabb Observatory in Aldergrove Lake Park (RASC Vancouver Centre's regular viewing site)

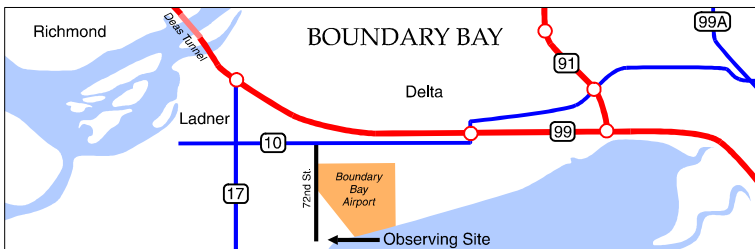
Contact Mike Penndelton (604-888-1505) or Howard Morgan (604-856-9186)



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 Thursday night star party. On the dike at the foot of 72nd St.

FOR SALE

FOR SALE: 80mm f/12.5 Maksutov Cassegrain, 1000MM Focal Length spotting scope. Comes with fluid-head tripod, 6 X 30mm finder scope, 45 degree erect image diagonal, 15mm 66-degree eyepiece and thousand oaks solar filter - \$400 or best offer.

FOR SALE: Antares 1.25 inch 24.7mm Speers-Waler eyepiece, excellent condition - \$100

FOR SALE: Synta 66-degree 1.25-inch 9MM and 6MM eyepieces, excellent condition - \$50 each

Contact Ralph at 604-572-1084 or E-mail at rhildebrand@dccnet.com

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. Provides a file uploading facility for submitting articles and imagery to Nova.

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.

RASCVC on the Internet

<http://members.shaw.ca/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, \$65 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 lobby 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 the Dale McNabb Observatory in the Aldergrove Lake Park, located in Langley, on 8th Avenue, just east of 272nd Street. We are there most clear nights. Contact Mike Pennelton at 604-888-1505 or Howard Morgan at 604-856-9186.

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

Upcoming Events

March

20/21 – Messier Marathon #1.
27 – Planetary line-up event.

April

17/18 – Messier Marathon #2.
19-25 – International Astronomy Week.
24 – Astronomy Day.

May

21 – Comet NEAT C/2001 Q4
21-24 – Spring Merritt Star Quest.

June

6 – Fraser River Festival.

July

1-4 – GA 2004
17 – Manning Outreach.
17-18 – Manning Park Star Party.
24-31 – SOAR.

August

12/13 – Perseid Meteor Shower at Aldergrove Lake.
14-21 – Mt. Kobau Star Party.

September

10-12 – Fall Merritt Star Quest.
25/26 – Sidewalk Astronomy.

October

9/10 – Sidewalk Astronomy (alternate date).

December

14 – AGM

continued from page 1

space technology.

How will the expense be justified this time? No new budget commitments have been made. The only mention of funds was a reallocation of some of the current NASA budget. Not very promising. The expense of a voyage to Mars is unimaginable. It is of the order of the whole U.S. budget for a whole year. The president did not propose this as an international effort. Many scientific projects today have an international scope, especially in astronomy. Many new big telescopes are financed by a group of nations. Astronomy has always been a collective effort of mankind and it shows now more than ever. Why would a trip to Mars

not be an enterprise of the whole world community? This is probably not a good place to start a political discussion...

What has all this to do with astronomy anyway? I have a problem with space exploration. It is easy to be interested and as fascinated in it—one can hardly avoid that—but there is always some doubt whether it is all worthwhile. One of the first victims of the new course of NASA is the Hubble space telescope. The space telescope has been doomed for a while. There has been great uncertainty about the next maintenance mission with the space shuttle. Now it is official. The space shuttles have been declared unsafe for the purpose of going to the HST

and NASA has been instructed to get rid of them. The shuttles will only be used to finish the International Space Station, whatever that is good for, and that will be the end of their existence. So one of the best telescopes ever designed, one of the most capable instruments to help us in our knowledge of the universe, becomes the first victim in this new direction to explore space. Some science.

What has all this to do with astronomy? If some human beings were to manage to reach Mars, is Mars then still an object for astronomy? If somebody can go out there with some geologist's tools and actually scrape the surface of a planet, is this planet then still a

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My First Mirror

by Doug Montgomery

One of my first objectives in astronomy was to build my own telescope. I have always been fascinated with the hands-on of the telescope. I was impressed with some of the hand-built scopes from members like Gary

to keep the scope small so I can observe comfortably, as I am not very tall myself. I have not started construction yet but I have started grinding the mirror. With the help of Vic Pollock, Steve Waddington and others at the Fraser Valley Astronomers

the equations I need for this step. The grinding stage is dirty, wet and noisy—the sound of sand on glass. It took me about two hours to get the bottom flat, so this will be time consuming. I do think it is worth it just for the experience.



Wolanski, Mike Pendelton and Steve Whitehouse. Not because these are all 16" scopes, but because they made these scopes to suit their individual needs. Mike used to transport his 16"scope in a Nissan Micra! You can't buy a scope like that—you have to build it that way.

I am going to build a 10" f5 Newtonian reflector. I chose f5

Society, I am going to learn how to grind, polish, and figure the mirror. At this point, the mirror blank I have does not have a level bottom so to start I must grind the bottom flat first. Next is the rough grind, and at this point I have not started yet as I have to do some math to figure out how far down to grind. I will be consulting the library to get

This will be an ongoing project and I hope to have the mirror coated by summer. My next step involves a little reading on this subject, and as I have a flight to Toronto and back this weekend, I hope to do it then and start on the rough grind when I get back. ★

New Books in the Library, RASC Vancouver Centre

Title/Author	Subject
Interiors of the Planets Cook, A.H.	Textbooks Planet structure
Radiotelescopes Christiansen WN, Hogbom JA	Textbooks Radiotelescopes
Richard Nelson Thomas: Astrophysicist Nora Andreasian, Ed. (wife)	Biographies Astrophysicists
Magnificent Mars Crosswell, Ken	Mars Mars, photography
Photographic Lunar Atlas (with booklet) Kuiper, G.P., Ed.	Atlases Moon, photography
Uranometria 2000.0 Vol.1 – The Northern Hemisphere to -6° Tirion W, Rappaport B, Lovi G	Atlases Star atlases
Full Moon (revised small edition) Light, Michael	Photography Space exploration
Life Everywhere: The Maverick Science of Astrobiology Darling, David	Exobiology Astrobiology
Planetary Dreams The Quest to Discover Life Beyond Earth Shapiro, Robert	Exobiology Astrobiology
Rare Earth: Why Complex Life is Uncommon in the Universe Ward, Peter; Brownlee, Donald	Exobiology Astrobiology
New Cosmology, The: A Revolutionary Treatise Allen, Harold W.G.	Cosmology Cosmology, crackpot

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worthy object for astronomical observation, or is it just part of an extended geology? It will always be part of our telescopic observations, because it is there, there in the sky and we will always want to see it. The Moon is still a majestic object in the heavens for astronomers even if human beings have walked on the surface. When I drive by the Tantalus Mountains with their magnificent glaciers, I will still stand still for a while and be deeply impressed by their beauty. It does not make any difference that many mountain

climbers have been there, right on top, exploring.

But how much is it worth in effort to go to Mars? How many other projects in scientific research can we totally neglect, just to be able to say that one nation on earth has been able to send some people over there. It is not hard to imagine the projects in fundamental physics, or microbiology or medicine or any other science or whatever, that will not proceed because of the triumphal voyage to Mars and “beyond.” The exploration of Mars by robots is going well. These little machines can

possibly do more than an actual geologist. And they will probably be among the first victims once NASA begins to search for funds—the funds that were never mentioned in the announcements.

Many people always assume that we, astronomers, are automatically committed to space travel and space exploration. I am convinced that we should not necessarily be. And if we think of the demise of the Hubble, I am even more convinced of that. We are observers of light—we let the light do the travelling. ✱

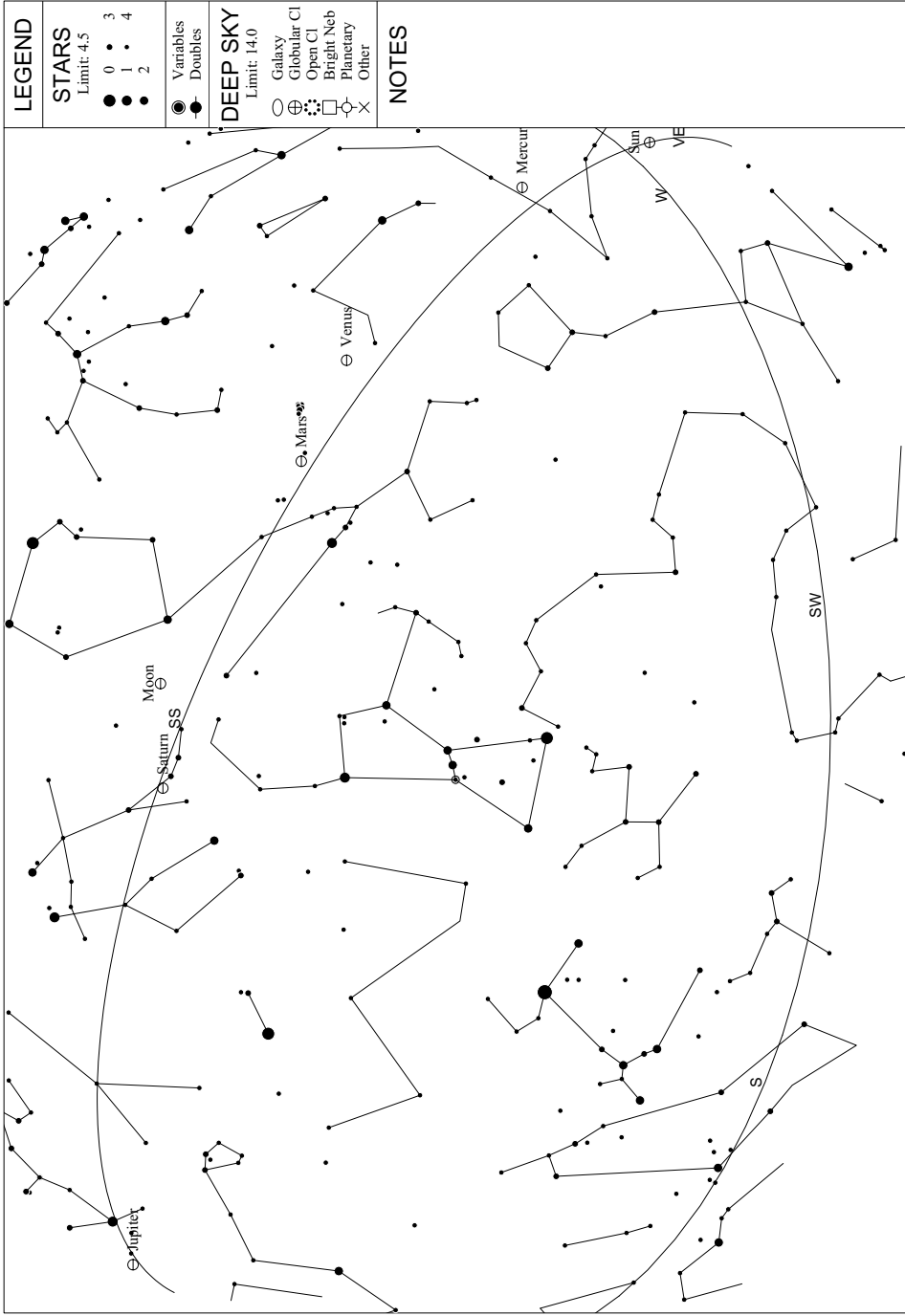
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between Saturn and Mars but hopefully won't interfere too much with the view. Mercury will be very low in the west, being only 18° above the horizon at 6:30 PM, and will set before 8:00 PM. It probably won't be MarsWatch (do I hear some sighs of relief?) but it should be fun so come and join in.

Another favourite event for me is Astronomy Day, which is on April 24 this year. I like the way that the whole Centre turns out and gets involved. We have been very lucky with the weather for a number of years, but just in case, we are planning a number of indoor events. The Space Centre is going to work with us this year and will offer some events in conjunction

with ours. The program this year will be similar to previous years but should focus more on youth and family displays. Contact Pomponia Martinez, Bob Parry or me with your great ideas and give Council a hand with preparing displays and creating new projects.

– Bill Ronald ✱



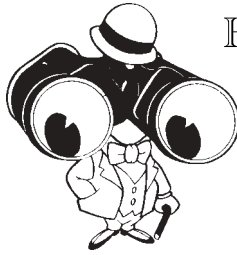
ECU Pro V3.2A (Local Horizon Mode) - Planets Jupiter, Saturn, Mars, Venus and Mercury - 7:00PM, 27 March, 2004

UTC: 2004/03/28 at 03:00 RA=05h21.0m Dec=-00°06'
 LMT: 2004/03/27 at 07:00pm Field=90.0° Azim=214.35° Alt=-35.35°

RASC MERCHANDISE

Available for purchase after meetings:

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