



NOVA

NEWSLETTER OF THE VANCOUVER CENTRE RASC

VOLUME 2004 ISSUE 1

JANUARY/FEBRUARY 2004

Warm Clothing	1
President's Message	3
Observing Sites	4
Upcoming Events	6

Warm Clothing for Cold Weather Observing

by Duncan Munro

(reprinted from NOVA, November/December 1991)

It seems that fall is finally upon us and that winter will indeed occur after all. Our extended summer gave us the chance to do some early evening viewing without having to brave really cold nights. Now we have to face the reality of cold fall and winter nights. Despite this, now is the best time of the year for viewing as the Sun sets early and one can get in more than four hours viewing and still be home by midnight! We do not even have to pack around our own scopes because the Vancouver Centre has its own permanently mounted, clock driven telescope out at Aldergrove Lake. Yet many active or would-be active observers pack up their gear, and refuse to venture out into

the cold fall and winter nights. This is really a shame, as many of the most beautiful deep-sky objects are best observed in the winter sky.

The real deterrent to winter observing is, of course, the cold weather; yet proper cold weather clothing can make winter observing an enjoyable possibility. As someone who has participated in several all-night winter astrophotographic sessions at Manning Park, I think I have a few insights into how to prepare for—and what to wear while—winter observing.

One of the most important things to realize is that bulky parkas or huge overcoats and arctic style gloves are not really necessary to keep warm. In fact the sheer bulk of this kind of clothing makes observing difficult and does not necessarily keep one warm.

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.

Jan 13: Jeremy Heyl of the UBC Astronomy Dept.: "There's More out There than Meets the Eye: A Field Guide to the High-Energy Universe."

Feb 10: TBD.

Next Issue Deadline

Material for the March Nova should be submitted by Monday, Mar. 1, 2004. Please send submissions to:

Gordon Farrell
(gfarrell@shaw.ca)

continued on page 2

continued from page 1

Rather, there are several principles which, when followed, can really help you enjoy observing on these frosty nights. The first thing to remember is that your body has its own heating priorities and knowledge of these will help you understand why you feel cold even though you appear to be warmly dressed.

If your head and neck are exposed, your feet and hands will get cold! This occurs because your body's first priority is to keep your brain warm. To accomplish this, the body restricts the flow of blood to the extremities and diverts it to the brain. However, your skull is not well insulated with muscle or fat (regardless of behavioural evidence to the contrary), and you lose heat very quickly if the neck, face and scalp are exposed. A toque which covers the neck and face

will do more to keep you warm than the heaviest parka or warmest arctic boots! Wearing a full ski mask of this sort may not be practical but a toque which has an opening for the face yet still covers the neck is a very practical type of clothing. I purchased mine, on sale, at the Saan for 99 cents! Nothing else is as important for preventing heat loss.

The next thing to remember is to never expose your hands. When your hands or feet are suddenly exposed to cold temperatures, the body restricts blood flow to the hands to minimize heat loss. So, initially your hands will feel cold, however after several minutes the blood vessels will begin to expand so your hands will now feel warmer but at the expense of lowering your core body temperature; eventually, the body will again restrict blood flow to maintain core

temperature. This cycle can be minimized by never exposing the hands, even for brief periods. Try to wear gloves at all times. I have found that inexpensive knitted gloves provide a very good fit and do not impair your manual dexterity. Expensive and bulky arctic gloves or ski mitts make it difficult to do fine work and tempt you to remove them, causing a very high rate of heat loss, especially when handling metallic objects such as eyepieces and focusers. If you find that woven gloves are not warm enough, try wearing a pair of mitts over the gloves and remove the mitts when doing intricate work. The Saan sells very warm, lined woven gloves for \$3.49. Woven gloves with leather palms are also sold there for \$3.99. Woven mitts are available at most department stores for \$1.00 and up. *[These prices are in 1991*

continued on page 6



Heavens and Earth Science and Nature Ltd

TeleVue, Celestron, Sky-Watcher, Antares, 1000 Oaks, ScopeTronix...

info@heavensandearth.com • www.heavensandearth.com • Toll Free: 1-866-537-6532

President's Message

2004 has arrived, and I know that many of you are hoping that it will be a little less hectic than 2003. The General Assembly and MarsWatch have now become just pleasant memories. Last year at this time, the GA2003 was the subject of many meetings and looked forward to with anxious anticipation, while MarsWatch was barely a twinkle in the planners' eyes.

This year we plan to focus and reorganize some of our efforts within the Centre. For example, at the January Council meeting we created an Education Committee to work on stimulating the interest of young people in Astronomy and increasing youth membership in our Centre. We envision working more closely with schools, particularly since our National organization has just released the teacher's guide, *Skyways*. The mentor program, which a few Council members took part in last year, might be expanded if there are enough interested students. We also plan to continue our outreach programs with youth groups such as the Boy Scouts, Girl Guides, Young Naturalists, etc.

continued on page 6

2004 Vancouver Centre Officers

President

Bill Ronald 604-733-7036
ronaldb@shaw.ca

Vice-President

Nicole van den Elzen 604-501-2656
nicole@deepskyobjects.ca

Secretary

Ron Jerome 604-298-3292
jerome3292@shaw.ca

Treasurer

Marc Verschuere 604-986-1485
marcver@shaw.ca

Librarian

William Fearon 604-939-1895
williamfearon147@hotmail.com

National Representative

Pomponia Martinez 604-215-8844
pomponia@telus.net

Membership

Dan Collier 604-732-6046

Chair, CARO Committee

Bob Parry 604-215-8844
robpar@telus.net

Director of Telescopes

Phil Morris 604-734-8708

Public Relations

Norman Song 604-299-7924
norman_song@telus.net

Speakers

Barry Shanko 604-271-0615
barry.mail@intouch.bc.ca

Merchandising

Doug Montgomery 604-596-7058
moondoug@home.com

Nova Editor

Gordon Farrell 604-734-0326
gfarrell@shaw.ca

Webmaster

Jason Rickerby 604-502-8158
rickerby@dccnet.com

Greeter/Trustee

Lee Johnson 604-941-5364

Trustee

Sally Baker 604-324-3309

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.

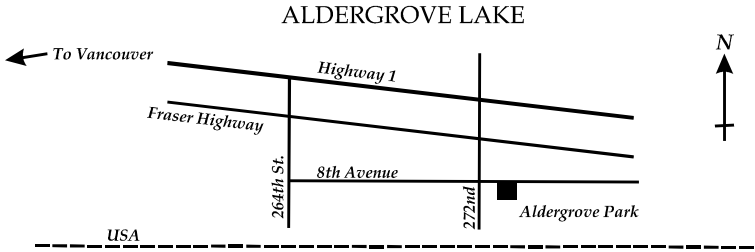
Advertising

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

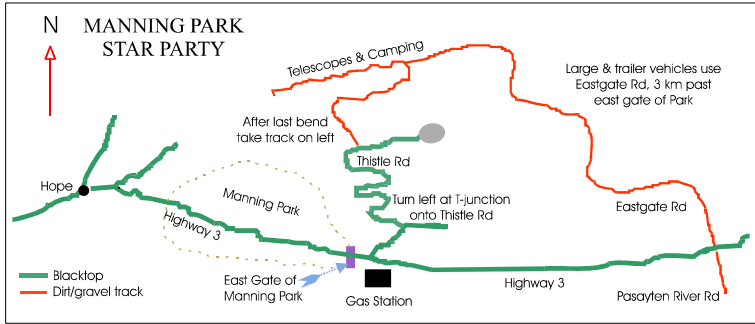
1/2 Page: \$25.00 per issue
Full Page: \$40.00 per issue
Rates are for camera-ready, or electronic files. Payment, by cheque, must accompany ad material. Make cheque payable to: RASC Vancouver Centre.

Observing Sites

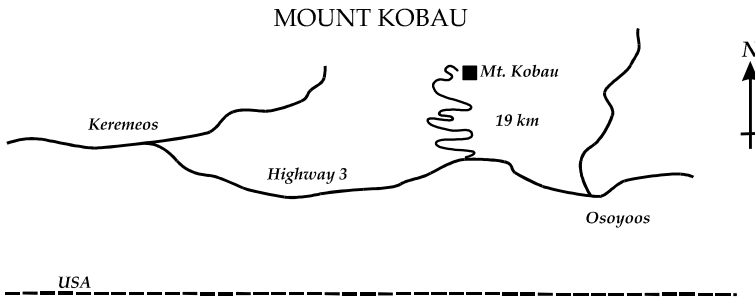


Dale McNabb Observatory in Aldergrove Lake Park (RASC Vancouver Centre's regular viewing site)

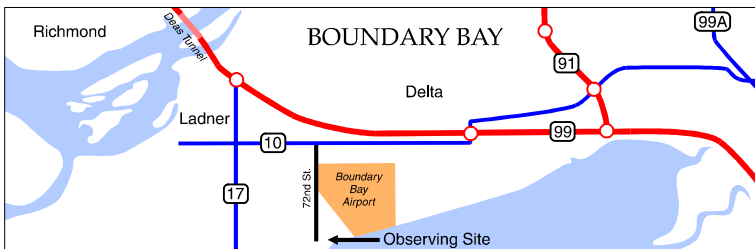
Contact Mike Penndelton (604-888-1505) or Howard Morgan (604-856-9186)



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

Burnham's Celestial Handbook

An observer's Guide to the Universe Beyond the Solar System

Two Volumes, revised and greatly expanded versions of the original.

Volume Three filled with material never before published in any form. Mint condition.

Clothbound \$60.-

Call George 604-251-6862

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

21-24 – 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 3

A new Light Pollution Abatement Committee was also created at the January Council meeting. It currently has seven members and Chris Dolman has been appointed as Chairman. Recently, there has been considerable interest shown by public groups and municipal governments in controlling light pollution and in the accompanying energy and financial savings. Last summer at the GA2003, Light Pollution Abatement Awards were presented to the cities of

Calgary and Abbotsford. There is no reason that similar environmental and economic advances can't be made locally; all that should be required are the will and the organization.

This year, we are also planning to establish a new Observing Committee to help our members learn and enjoy the skies, even in often-cloudy Vancouver. This group will investigate new dark sites, help less experienced observers, and coordinate special observing events. We are, however, still looking for people to help in

organizing club volunteers for public outreach events.

Finally, due to recent legislation regarding privacy of personal information, we suggest that members who do not wish to have their home or e-mail addresses listed by the RASC should contact the National Office (mempub@rasc.ca) to have them removed. The full impact of this legislation on us is still uncertain and hopefully we will have more complete information in the near future.

- Bill Ronald ★

continued from page 2

dollars, so don't hold it against them if prices have increased – Ed.]

Cold weather gear for the feet need not be elaborate or expensive, but some thought

must go into what to wear. During cold, dry weather, tennis shoes are surprisingly warm and comfortable. I find that they have thick soles which provide insulation while standing on frozen ground or

cold pavement. I always wear two pair of socks, though, one pair of long tube socks and one pair of heavy woollen socks over the tube socks. Your feet should not be too tightly

continued on page 7

continued from page 6

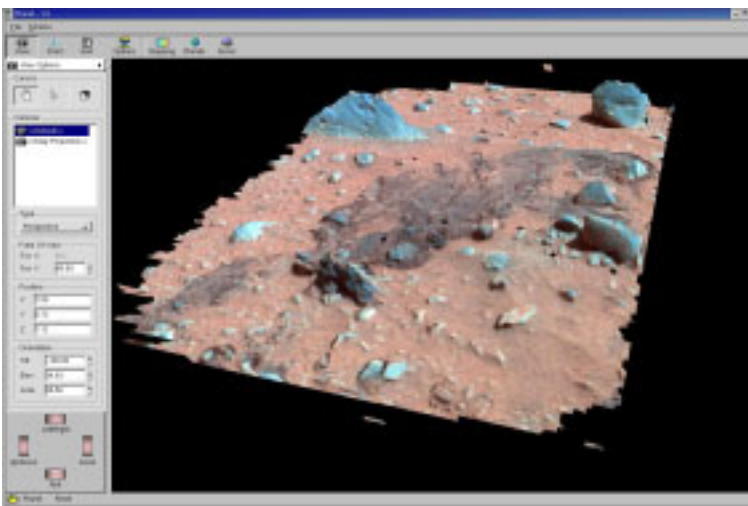
constricted by wearing too many pairs of socks. You should be able to flex your toes while wearing foot gear so as to be able to stimulate circulation. I have a pair of very warm, felt-lined boots which I wear to potentially damp observing sites where tennis shoes might get soaked through—always keep your feet dry! However, I prefer tennis shoes if I can get away with it because they are so much more comfortable.

Some thought must also go into the selection of clothing for the legs and abdomen. I always wear an undershirt, a flannel shirt, sweatshirt and, on really cold nights, a sweater. On my legs, I wear a pair of regular trousers, and I put on a

pair of sweat pants over the trousers. I have a two-piece ski suit which I got on sale at K-Mart which I put on over everything else. This ski suit by itself is not especially warm but it provides good wind protection and it has a high collar to protect the neck. The actual insulation is provided by the layers of clothing underneath. Finally over the ski suit I wear a hooded sweatshirt; this has a nice warm hood for extra head protection, deep pockets for flashlights, eyepieces and cold hands, and is easy to put on and remove. Out at Manning Park, I will put on long thermal underwear, but I try to wear clothing in removable layers so that I can feel comfortable in a warm car or perhaps a restaurant. I do not

like to wear clothing which constricts my movements, as I find this very fatiguing.

So, in summary, I would like to stress again the importance of head and neck protection. Remember, winter lets us get in long observing sessions while still allowing us to go to bed before midnight. It is worthwhile now to sit down and plan what to wear to remain warm and comfortable while winter observing. I, for one, plan to spend some time out at Aldergrove Lake Park viewing through our newly installed 14.5" telescope. Seeing the constellation Orion high in the Southern sky is only one of the unique treats waiting for the winter observer. ★



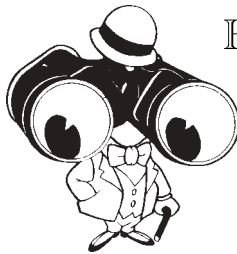
A three-dimensional colour model created using data from the Mars Exploration Rover's panoramic camera shows images of airbag drag marks on the martian surface. This model is displayed using software developed by NASA's Ames Research Center.

Image credit: NASA/JPL/ Cornell

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
Cloth Crests	\$11.00
Lapel Pins	\$ 6.00
L.E.D. Flashlights	\$22.00



HARRISON SCIENTIFIC INSTRUMENTS LTD.

**Telescopes - Binoculars
Microscopes & Accessories
Weather Instruments**

DEALER FOR

**ZEISS • PENTAX • CELESTRON •
BUSHNELL/BAUSCH & LOMB • SKYWATCHER •
OLYMPUS • STEINER**

CD-ROM Astronomy Skymaps for PC's
"Like New" Consignment Equipment

1859 West 4th Avenue, Vancouver, BC V6J 1M4
tel: 604-737-4303 fax: 604-737-4390
e-mail: harscope@direct.ca

Vancouver Telescope Centre

Telescope, Binocular, Microscope Specialists

PROPRIETOR JOHN HARTLEY

2565 Yew Street, Vancouver, B.C. V6K 2E3

Phone 604-738-5717

New

Telescopes, Binoculars, Spotting
Scopes and accessories by

MEADE

CELESTRON

BAUSCH & LOMB

OMCON-KOWA

BUSHNELL

SWAROVSKI-STEINER

SWIFT-PENTAX

CARL ZEISS-NIKON

SKY WATCHER

VISTA ANTARES

Assorted eyepieces, barlows,
star diagonals 0.96" - 2"

New and second hand

Visit our Web site at

www.vancouvertelescope.com

e-mail: 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