



# NOVA

NEWSLETTER OF THE VANCOUVER CENTRE RASC

VOLUME 2005 ISSUE 3

MAY/JUNE 2005

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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.

**May 10:** Ian McLennan, Vancouver Centre member: "New Planetariums in the World: Implications and Prospects for Vancouver"

**June 14:** Dr. Jeremy Heyl of UBC's Physics & Astronomy Dept. speaks on magnetars in his talk, "The Secret Life of Neutron Stars."

**July 12:** Members' Night.

## Next Issue Deadline

Material for the July Nova should be submitted by Monday, July 4, 2005. Please send submissions to:

Gordon Farrell  
(gfarrell@shaw.ca)

## Me and Charles Messier

by Ron Jerome

It was nearly 2:30 in the morning when I pulled into the driveway. Too tired to unload all the gear from the car (there is something to be said for binocular viewing), I settled for bringing just the telescope inside, leaving the rest for later. My wife, Anne, hardly budged when I finally crawled into bed.

Later, much later, when I finally got up and had my first cup of coffee, Anne asked how all the "star guys" made out. "Really well," I replied, "but boy, can that Charles Messier party. He kept me going until the wee hours. Each time I got ready to pack up, there was one more galaxy, or nebula or star cluster he would tempt me with. I'm going to need a nap by this afternoon!"

Anne smiled. Whenever I set my scope up in the driveway, she would accept my invitation to view the night sky and admire whatever "little fuzz balls" I can conjure up during an evenings' hunt. After 5 or 10 minutes though, she retreats to the comfort of her kitchen, burying herself in one of her books. She will gladly bring me tea

on a chilly night, but she cannot quite embrace the idea of grown men and women standing around in the dark, staring up at a speckled sky for hours in search of particular tiny points of light. Still, she encourages my efforts.

A month before my first Messier attempt, William Fearon, our librarian, handed me the centre's copy of Harvard Pennington's *Year Round Messier Marathon Field Guide*. "This should help you get organized," he observed—and he was quite right. The book laid out in detail the tools, techniques and tips for making the Messier hunt or any other sky search successful as well as fun. I also visited a couple of internet sites and downloaded checklists detailing the 110 objects in order of appearance, by constellation, by season and by number (Messiers To Go).

On the Friday evening of March 12<sup>th</sup> I arrived at Boundary Bay about 7:30 and began setting up my equipment. Over the next 45 minutes, most of the Observing Committee members arrived, as

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# The Dew Heater Project

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by Bruce MacDonald

## Background

It became obvious at the March Messier Marathon (otherwise known as the “Dew Do”) that I desperately need a dew heater. There are various commercial products that cost in the range of \$100, but I wanted the fun of building one myself. Not being an electrical engineer, I went looking for DIY plans on—where else?—the Internet.

The basic description of the circuit can be found at <http://mysite.verizon.net/res0owmd/id1.html>

The circuit board layout is from <http://www.atmsite.org/contrib/Clement/dewheater/pcb/index.html>

I have contacted the creators of both of the articles, and have obtained permission not only to build the controller described, but to do so as a club project. Materials can be sourced locally.

## Design

The circuit differs from most of the common dew heaters available, in that it uses a pair of temperature sensors to turn itself off when the temperature of the heated component detected reaches 2°F above ambient. The circuit is based on an idea from *Sky & Telescope* August, 1978 p.161, entitled “An Automatic Electronic Dewcap”

## Circuit Board

I’ve never drawn and etched my own circuit boards, but I was keen to try. Others have convinced me, however, that it is far, far better to pay somebody else to do the messy stuff.

## Cost

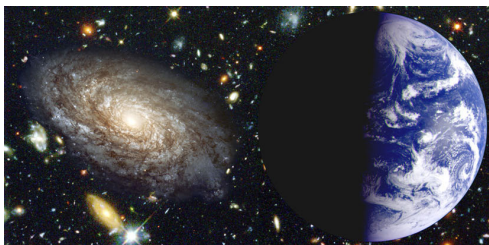
Judging from the cost of components I have been able to locate, I estimate that the cost will be between \$30 and \$40—plus cost of the circuit board if it is decided to have them made professionally.

## Participation

If you to are feeling the distinct lack of a dew heater in your life, and want to come along on this adventure, just give me a call at the number below, or preferably e-mail me at the address given. If you are handy with a soldering iron, this will be a snap. If not, it is not hard to learn—about the same skill level as using a knife and fork. For the chopsticks inclined, it is way easier than that. If you HAVE made circuit boards before, and want to share your expertise or advice, by all means give me a call. ★

## Contact

Bruce MacDonald  
[brumac@gmail.com](mailto:brumac@gmail.com)  
604 882 3820



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## President's Message

We completed our first public event with the annual Astronomy Day program held April 16<sup>th</sup>. After a couple of years of terrific shirtsleeve weather, this one started off with the threat of rain. Over the course of the day, there were a few sprinkles and I found I needed my winter coat to keep warm. Still, several hundred people showed up. In spite of the poor start, we had opportunities to showcase a single sunspot during the morning and some stars and planets that evening. The dome was open and member scopes were also up and running. Celestron donated a pair of top quality binoculars and Vancouver Telescope contributed a great scope for our raffle. Club members won both!

The food must be what draws the people. The chef de jour—our own Pomponia Martinez—served up sandwiches and a tasty chili to fuel the 20+ volunteers while the visitors enjoyed coffee, soft drinks and snacks. There was also a special Astronomy Day cake. Besides the cake frosting, I felt the highlight was the series of seven fine presentations prepared by our members. These talks covered a range of topics: telescope basics; the night sky; solar observing; a Saturn update; light pollution; astrophotography with web cams and; observatories around the world. Each presenter was very passionate about the subject,

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## 2005 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 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 \$55.00 per year (\$31.25 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 or mailed to the address on page 5.

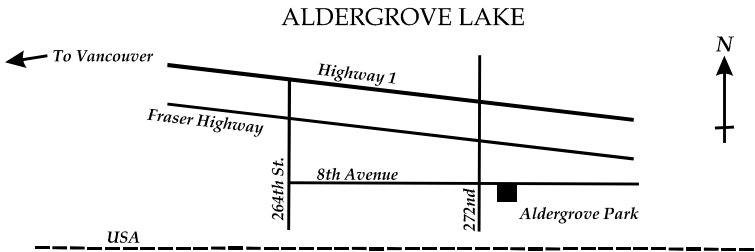
## Advertising

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

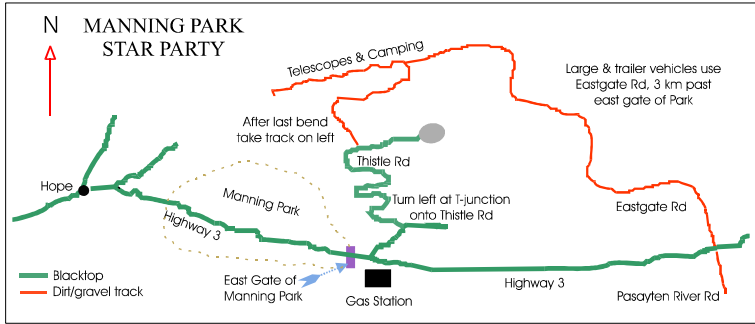
1/4 Page: \$15.00 per issue  
1/2 Page: \$25.00 per issue  
Full Page: \$40.00 per issue  
Rates are for camera-ready, or electronic files. Payment, by cheque, must accompany ad material. Make cheque payable to: RASC Vancouver Centre.

# Observing Sites

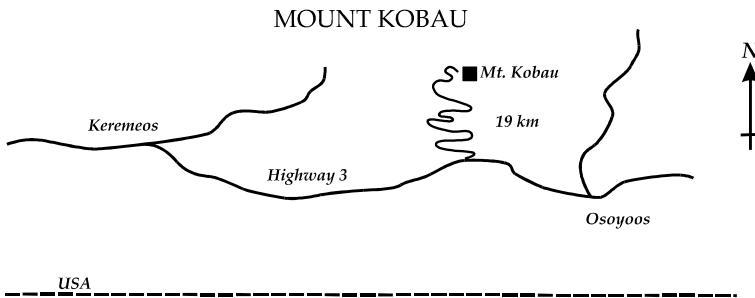


Dale McNabb Observatory in Aldergrove Lake Park (RASC Vancouver Centre's regular viewing site)

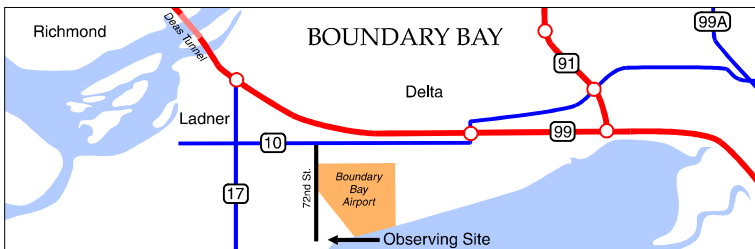
Contact Mike Penndelton (604-888-1505) or Howard Morgan (604-856-9186)



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

## FOR SALE

Meade Series 4000 Ultra Wide  
Angle 8.8mm eyepiece.  
Good shape. \$175

Call Lance Olkovich:  
604.253.0032

## 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

## 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 pro-  
grams.

## 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.

### 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) in-  
cludes 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 Mem-  
bership 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/](http://www.hrmacmillanspacecentre.com/)

## MEMBERSHIP HAS ITS PRIVILEGES!

New members, did you know?  
The Vancouver Centre has 8 tel-  
escopes available for loan free of  
charge! We have telescopes rang-  
ing from 60mm to 10" diameter.  
For more information see Phil Mor-  
ris, Director of Telescopes in the  
meeting room 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 knowl-  
edge, enjoyment and skill in as-  
tronomy.

The best thing you can do to  
gain the most from your member-  
ship is to get active! Take in the  
club meetings; engage other mem-  
bers with questions; come out to ob-  
serving 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 Thursday/Friday nights. Con-  
tact Jason Rickerby at 604-502-  
8158.

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

## Upcoming Events

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### May

13 or 14 – Sidewalk Astronomy  
20-23 – GA2005 in Kelowna

### July

30 – Mt. Kobau Star Party begins

### August

7 – Mt. Kobau Star Party ends  
11 – Perseid Meteor Shower at  
Aldergrove Lake

### October

8 or 9 – Sidewalk Astronomy

### December

13 – AGM

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did a handful of other interested sky watchers. Some time close to 8:00, as we were getting organized, a bright light flashed across the length of the western sky. Saturday's paper was to report that it was witnessed all down the west coast. "Did you see that?!" someone exclaimed excitedly. "See what?" I asked, my back to the event. "That bright streak across the sky. Was it space junk or a meteor?" I missed the whole thing!

After aligning my telescope and equipping it with my favourite low power eyepiece, I began fishing Pisces for M74 in the fading glow of evening. Ken Hewitt-White had written of a Messier search, which his club held during his youth. The contest lasted a full year and while the winner, a veteran observer, did not get the complete list in one night, he finished 6 months ahead of most other members because he first caught those elusive objects that set early in the evening.

Identifying a constellation with most of the stars missing was akin to completing a jigsaw puzzle without the picture on the box but, as twilight give way to night, the

star patterns slowly took their places in the sky. With a little help from some of my more experienced colleagues I found M74 as it emerged from hiding. I was not so successful with either M77 in Cetus or M33 in Triangulum—one for three, so far. Having devoted more than an appropriate amount of time to those three, I moved on. I could hear Charles exhorting me to pick up the pace as there were still 107 more objects waiting to be found.

A string of successes followed: in Andromeda (1), Cassiopeia (2), Perseus (2), Taurus (1), Lepus (1), Orion (3). I was on a roll. Periodically I wandered over to other scopes to compare views or get confirmation that what I had found was indeed what I had been looking for. Next came Gemini (1), Auriga (3), Puppis (3), Monoceros (1), Hydra (1), Cancer (1) and Leo (2). I reached 23 and paused to take in Jupiter and Saturn, neither of which was on the list. Although the Messier Guide talked about pacing the search, I began slowing down, lingering over some of my discoveries and making notes. The nebulas M42 and M47 were as pretty as always but, although M78 was in the

neighbourhood, I had never paid any attention to it before now. The Beehive cluster M44 impressed me and I made a note to show it to Anne at the next opportunity. Beside M50 I wrote, "uninspiring". By now my marathon run had slowed to a walk.

Our observing site adjoins a dike in very low-lying farm country. As the temperature falls, the air begins to shed some of its moisture on the telescopes, their mirrors and on eyepieces, impairing the seeing. By 11:30 the viewing was so difficult that nearly everyone else was gathering their gear and their collections of Messier Objects and bidding me 'Adieu'. I was fortunate to have had a Dry Eye installed on my scope so the eyepieces, secondary mirror, finder scope and telrad were all moisture free. The red glow from the tiny light on the control box told me I could remain a while longer.

By 12:30, a number of Charles' targets were clustered about the zenith and my Newtonian mount would only get me teasingly close. In addition, the dew was getting thicker—fog

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which had to resonate with the audiences. I only saw one person doze off.

Our next event is Sidewalk Astronomy either Friday evening May 13 or Saturday May 14 depending on the weather. We have two venues this time, the usual Inukshuk site at English Bay and David Lam Park on Pacific Avenue between Homer and Drake. Viewing is scheduled from 8:30pm to 10:30pm. We invite volunteers to bring their scopes and request that any members with loaner scopes be there as well.

A few of our members attended the Merritt Starquest at the Quilchena Ranch near Merritt the weekend of April 29-30<sup>th</sup>. Apparently, Friday was the best night as the sky became overcast on Saturday. The site is readily accessible but users need to be relatively self-contained. The biggest luxury is the Port-O-Potties. Bruce MacDonald said the seeing was rewarding. The only

small problem was the “bovine nebulas” which were hard to discern as he stepped about in the dark.

Your council has been presented with the opportunity to participate in the use of a robotic telescope. We believe this activity would meet a number of our strategic objectives and that we can structure an arrangement which poses no financial risk to the Centre. It should create significant opportunities for our members and potentially for outside partners. An outline of the proposal is available at the GMSO after the meeting. We will provide more details once the organizational hurdles have been overcome.

The 2005 GA will be on us shortly—May 20-23 in Kelowna. By now you should have received the Annual Report and Proxy. If not, we can provide copies. Your Council has mentioned the financial issues that concern us at the National level. We believe that the motion proposing a \$5.00 fee

increase is an inadequate response to a more serious problem. We also object to the By-law change that would alter the fee sharing arrangement between National and the Centres. If National did not have a more serious problem, you would not be contemplating this proposal. For some Centres, those funds are critical and any reduction would cause them difficulties. We ask that you express your view on these matters. Please complete your Proxies and deliver them to your Centre representatives. They will vote exactly as you direct them. Better still, attend the GA in Kelowna. Besides the business agenda of the Annual Meeting, there is an excellent roster of speakers and events as well as the opportunity to meet Centre members from across the country. I would be pleased to see you there.

– Ron Jerome ★

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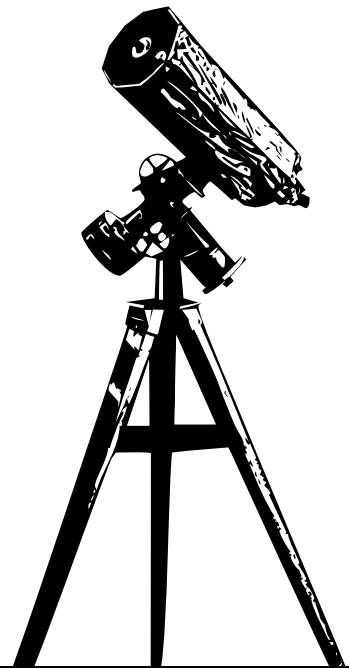
began to form in the area. To the west, some distance away, a cluster of greenhouses, which, until now, had been dark, were switched on. As the bright glow welled up through the fog, the whole region took on the appearance of a huge galaxy. The more I stared at the

glow, the more it had a familiar look and then it struck me—M104, the Sombrero Galaxy, purportedly 28 million light-years away, had unfolded before my eyes. I stood there chuckling at the incongruity of a deep sky object being conjured up by light pollution. I think Charles would have had a

good laugh as well.

Suddenly I felt really tired. I had had enough. I did manage to view just over 30 of Charles’ collection that evening and while that set no records, it should be enough to secure an invitation to the next Messier Marathon. ★

Proud To Serve Vancouver's Astronomical Community



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