



NOVA

NEWSLETTER OF THE VANCOUVER CENTRE RASC

VOLUME 2003 ISSUE 6

NOVEMBER/DECEMBER 2003

Merritt Star Quest	1
National Council Report	2
President's Message	3
Observing Sites	4
Upcoming Events	6
Varsavia Occultation	7
2004 Council Nominations	9
Ken Crowell Lecture	10
Members' Gallery	11

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.

Nov 11: Gaelen Marsden of the UBC Astronomy Dept. on the BLAST project.

Dec 9: AGM. Speaker TBD.

Next Issue Deadline

Material for the January Nova should be submitted by Monday, Jan. 5, 2003. Please send submissions to:

Gordon Farrell
(gfarrell@shaw.ca)

Merritt Star Quest

by Jim Failes

Back from the inaugural Merritt Star Quest. I'll try not to make those of you who didn't go feel too bad.

The site is excellent. I'm told there was a last minute change of location at the request of Douglas Ranch, but if the original site was better, it must be awfully good. The site we used, between a small lake bordered by aspens and a large cattle corral, afforded more than enough level ground for several dozen attendees, their campers and telescopes. Although the site is in a bit of a hollow with grasslands sloping upward on all sides, the horizons are virtually uncompromised. A hill in the southeast rises several degrees, but the very low horizon just west of south affords views almost to the theoretical limit of south declination (upslope to the north there are roadside areas that have the best potential for Messier marathon observing I've seen in south central BC). Rare and distant lights from cars on the main access road were not a factor.

Quite apart from its astro-practicality, the landscape is

picturesque. Twilight Saturday was particularly beautiful—Mars rising above golden aspens on the far shore of the lake, while a willow-thin crescent moon disappeared below pink and orange cloud wisps in the west.

Aside from a few thickets of trees on the nearby hills, the area is open grassland. Near the corral (empty, incidentally) there is enough flat ground for several hundred telescopes. As at Mt. Kobau, the ground is "mined" with cow patties, but—at least this time of year—they have virtually all turned to dust. Speaking of dust, there was no significant problem with the ground dust while I was there, but under windier conditions, it would be an irritant. There isn't a lot of exposed dirt. The land is almost entirely covered in grass, which certainly helps. I can't imagine things being much drier than they were, so I assume this was as bad as it gets.

After dusk, I wandered freely, taking pictures of familiar constellations over this new (for me) territory. It was calm

continued on page 6

National Council Report – October 2003

by Bob Parry,
1st National Rep
and Pomponia Martinez,
2^d National Rep

The meeting following the GA never promises to be a particularly special meeting, and this meeting was no different. There were no contentious issues to deal with, however that did not mean that some are not on the horizon.

The first issue dealt with was regarding travel policy for Committee Chairs. The Finance Committee will assess the impact on the budget and report to the next meeting in March. Many of the Chairs are National Reps or have another official position within the RASC so there is overlap.

National Office now has a permanent web connection which is much faster and more convenient for Bonnie. National has changed their e-mail address in order to reduce the impact of junk email and other unsolicited traffic. One particularly bad day had only 10% of the email being

RASC related.

The only contentious issue arrived with the Treasurer's Report. As most of realize by now the Canadian Dollar has risen dramatically against the US\$. The result has been that although sales of our publications in the US have remained about the same as in the past, revenues are down by \$30,000. This, along with a reclassification of our status with the Post Office and a huge increase in Insurance costs, means that we will run a deficit for the fiscal year 2003.

In order to try and reduce the costs somewhat, Pomponia did some research on what was actually required to be in the Annual Report. The costs of the Report, while not as high as a couple of years ago, is still a very hefty \$9,648. Pomponia's suggestions were to put the basic necessities into the report and have the human interest and other articles move to the Journal. These suggestions would have resulted in a savings of \$2,500 a year. A

motion was made, however it was defeated. We both feel this was unfortunate and a little short sighted on Council's behalf as these and other decisions are going to have to be made.

The Finance Committee will access the impact of the exchange rate and insurance increases in order for Council to be prepared for the upcoming Budget Meeting in March.

The insurance situation for the Society has changed recently. Our previous policy will not be renewed by the Company. Our agent has been looking for another company and has found one, however the costs will be approximately \$10,000/year MORE than we have been paying. This is not because of any claims by the Society; it is a general trend in the insurance business.

The Publications Committee has recommended that prices for the Handbook, Calendar and future publications be quoted without shipping costs included.

continued on page 8



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President's Message

This final NOVA of 2003 gives us a chance to reflect on a busy and exciting year. The Vancouver Centre achieved a lot, even though our two sidewalk astronomy evenings were clouded out. We more than made up for that loss with outreach events such as the close encounter with Mars, the Perseid meteor shower, the Manning Park outreach, and many others. This year, members of our Centre have shared the excitement of astronomical observing with literally tens of thousands of people. Again, I would like to thank all of those who donated their time and shared their equipment. This achievement was even more impressive considering that so many of you also volunteered at the General Assembly and helped make it such an outstanding success.

I would also like to comment on the strong relationships, which we have continued to strengthen, with other organizations in our astronomical community. The H.R. MacMillan Space Centre has always worked with us on mutual projects, and this cooperation continues and grows. For example, our Centre has been asked to designate a member to sit on their Programming & Education Committee. The Greater Vancouver Regional District has increased the astronomy-based programs in their Parks and our Centre has been an important part

continued on page 8

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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.

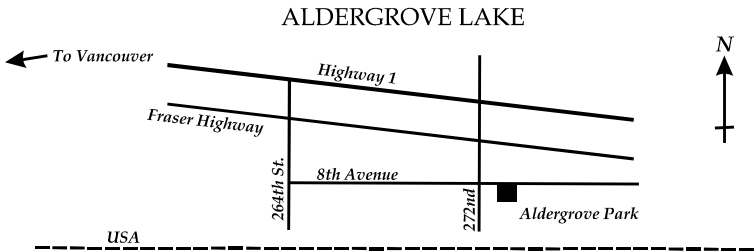
Advertising

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

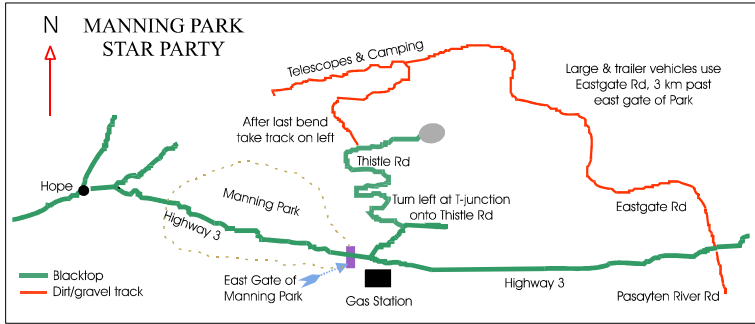
1/2 Page: \$25.00 per issue
Full Page: \$40.00 per issue
Rates are for camera-ready, or electronic files. Payment, by cheque, must accompany ad material. Make cheque payable to: RASC Vancouver Centre.

Observing Sites

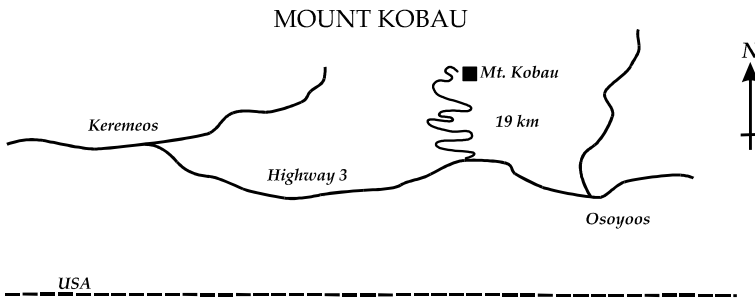


Dale McNabb Observatory in Aldergrove Lake Park (RASC Vancouver Centre's regular viewing site)

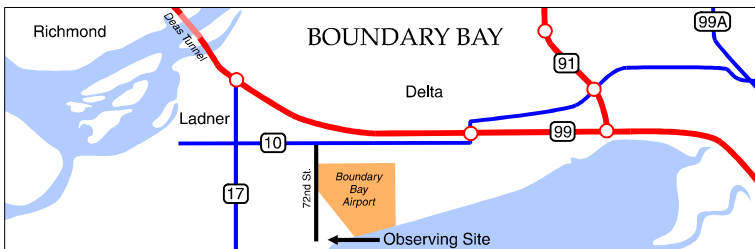
Contact Mike Penndelton (604-888-1505) or Howard Morgan (604-856-9186)



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.

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

December

9 – AGM

FOR SALE

Complete set of Celestron CG-11 scope.

For private sale. The equipment is in excellent, like-new condition, and it has never been moved outdoors. I am looking for best offer. The scope includes:

- 11" scope, 2800mm f/10, with Starbright Coatings and lens cap.
- G-11 Equatorial Mount (weight 31 lbs.) (weight-bearing 60 lbs), both axes driven by a 5.6" diameter 360 tooth worm gear.
- Losmandy Tripod - semi-pier, 6" diameter central column, all aluminium, removable legs.

- LED 8x50 finder scope for straight-through or right angle viewing,
- Visual Back 1-1/4".
- 30mm 1-1/4" Celestron Ultima multi-coated ocular + 15mm LV multicoated ocular + 10mm LV multicoated ocular.
- Novel LED-illuminated Polar Axis Finder with star patterns for both hemispheres.
- Star Diagonal
- Control column (tripod head), and removable Electronic Console.
- Hand control unit
- 17-1/4" counterweight bar and 2

- counterweights, 11 lbs. each.
- 12 ft 12V cigarette lighter cord.
- Deluxe hard storage case for equatorial head.
- Footlocker-style case for scope.
- Instruction manual, and other accessories.

Interested parties please call James at 604-716-1261 for further details.

Wanted: Tripod to fit '60s-'70s Celestron C8. Contact Phil Morris at 604-734-8708 or RASC-VC.

continued from page 1

throughout the night and amazingly temperate for late September. I didn't have to delve into my hard-core cold weather gear at all, but I hear the Friday night was much cooler.

There were no guest speaker talks that I know of. Informal ceremonies at dusk included thanks to those who allowed use of the site and a door prize draw.

There was quite a variety of scopes at the event, with a concentration—not surprisingly—on the larger apertures suited to deep sky observing. There were at least four telescopes of 16" or larger and, I believe, one C-14.

Some cloud that lingered after dusk disappeared before midnight

and the rest of the night was pristine. Dim light domes from Merritt, Kamloops, Vernon and Kelowna did not interfere with any but the lowest observations towards those towns. The transparency was excellent, and the darkness passed most if not all of Alan Whitman's tests. I could see the dark E in Aquila, the Gegenschein and—in the wee hours when my eyes were thoroughly adapted—the Zodiacal Band. M33 was tough, but visible with averted vision (I blame my aging eyes for having such a hard time on the Triangulum spiral. I'm sure I used to see it much more easily 20 years ago). With my binoculars, I had an easy time seeing things like M101, the Helix

planetary, and M31's two brightest companions. The Andromeda galaxy itself was magnificent, spanning most of the binocular field—gleaming right through its audience of foreground stars. Late at night, when it was almost overhead, I could see M74 with little difficulty.

Merritt Star Quest, if it continues to be held at this site, promises a lot of great observing in the years to come. My thanks to the organizers, particularly Nicole and Rene van den Elzen and Paul Greenhalgh, who put in a tremendous amount of work, and were rewarded with an excellent event. ✨

Varsavia Occultation

by Dan Collier

These just came in from Frank Anet (UCLA, of behalf of IOTA) via Jeremy Tatum in Victoria, BC coordinator for July's Varsavia occultation event. Frank analyzed our occultation tapes frame by frame to come up with the R and D numbers. Compare them with my estimated times at the end of this article. For comparison, Bill Ronald's timings had a much better S/N and an error of ± 0.02 s.

Tape "E" refers to Phil Morris' camcorder (rescued from a dumpster) and the GSO's 17-inch Dobsonian. The large aperture saved this observation since the camcorder was not very sensitive at all.

Tape "F" refers to the GSO's intensified TV camera and zoom lens.

(4) Collier's tape (VHS tape, tape E)

Location: Lat $49^{\circ} 16' 31.86''$, Long $-123^{\circ} 08' 36.0''$, Alt 9 m.

A bit dim so the S/N ratio is not very good. The audio is good (after filtering). The error is about ± 0.03 s.

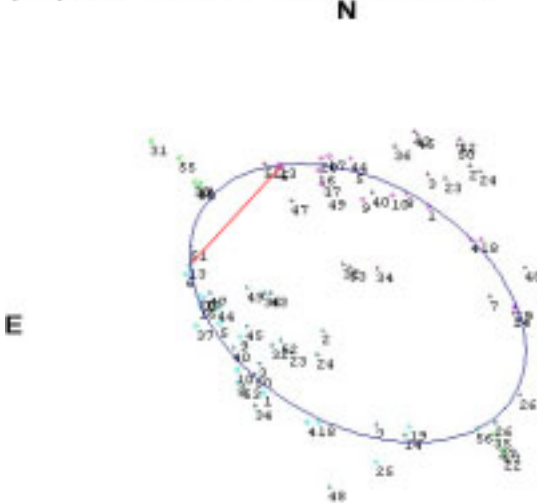
The times are: D at 06 h 02 m 55.01 s, R at 06 h 2 m 56.11 s.

The duration is 1.10 s.

(5) Collier's tape (VHS tape, tape F)

Video from a wide-field view (includes Arcturus) taken with an intensifier.

(1263) Varsavia 2003 Jul 18 54.0 \pm 2.8 x 36.0 \pm 1.0 km



The scintillation from the intensifier and the dimness of the star at the FOV leads to poor accuracy, with an error of the order of 0.1 s. I did not do a detailed analysis, but the data is consistent with those in tape E taken at the same site.

Here are the numbers as they were published in IOTA's preliminary report back in August before the tapes had been fully analyzed. As you can see they did not change much.

Observer 13, Dan Collier,
MacMillan Space Centre,
Vancouver, BC
Long -
1230837.3 Lat
+ 491631.6
Elev 9m
06:02:55.0
Disappear
(U T C)
06:02:56.1
Reappear

Our "chord" on the included image was based on the latter figures. It is technically out of date, but as far as the GSO's timings are concerned the differences are negligible. You can pick out the GSO's two chord-

endpoints near the left edge with the label "13" on them. The endpoints (blue and purple o's) are just to the upper left of the labels. The GSO's timings are joined with a red line.

Thanks to everyone who helped out that night, including Howard Gazes, Michael Jensen, Phil Morris, Sean Roddick, Bill Ronald and Marc Verschueren. *

continued from page 3

of that. In return, we have received increased access to the GVRD Parks. We have also worked in cooperation with the Fraser Valley Astronomers Society, to share the beauty of the night skies with the public. Finally, we have the support of the local universities who continue to supply us with many excellent speakers who keep us up to date on the latest exciting developments in astronomical research. In particular, we thank the University of British Columbia for sponsoring us for the recent GA2003.

We are also approaching our own Annual General Meeting. Our Nominating Committee has proposed a full slate of officers for the coming year and this is included elsewhere in this

newsletter for your consideration. It is of course only a proposed slate and if you are interested in joining the Council next year, you should contact Lee Johnson, the Chairman of the Nominating Committee.

Finally, I would like to appeal once more for help in two very important areas. First, we are still looking for people to help in organizing our volunteers for public outreach events. This does not need to be a full-time Council position, but rather perhaps a phoning committee to help get members and their equipment out to the events.

The second area is light pollution abatement. Light pollution and energy conservation are becoming very important public issues and we have had

enquiries from local politicians, the public and the news media. As a group who has an interest in preserving dark skies, we should be ready to supply information to all of them. This does not need to be a full-time job by just one person, but rather it could be done by a small group who collect the appropriate data and are ready to answer questions publicly. I have spoken to some members who have a passion for dark skies but don't feel they have the time to take on such a big job. I think that if several of you got together and each took on a small part of it, you would be amazed at what you could achieve. Please think about it and don't be afraid to get at least a little bit involved.

– Bill Ronald ★

continued from page 2

This is in line with most other publications and products. The only exception is for the new *Skyways* publication. This was because it had already been published as such and will remain that way until a new issue is published.

The Membership and Promotions Committee presented the new Seal as designed by our own Dan Collier. This was well received and will become the new Seal and Logo for the RASC. There is some legal stuff because the current Seal is registered but that is a formality. The current Seal is very difficult to have reproduced for promotional items like T-Shirts and Coffee Mugs and such as we

found out during the GA. Congratulations Dan for all the hard work.

On the Real Astronomy front, the Observing Committee will now be the ones that issue Observing Certificates on behalf of the RASC. This includes the Messier and Finest NGC Certificates. In the past, the National Secretary issued them after the Committee recommendation. This took longer than necessary and made for more work for the National Secretary.

Let us not forget International Astronomy Day, which will be Saturday April 24 this year. There is a possibility of two bright comets this spring. However comets are, I have heard, very much like cats; they are rather

unpredictable. So we can only wait and see.

There were other boring things around the Constitution and Nominating Committees but I will not bore you with them.

Rajiv will continue to edit both the *Observers Handbook* and the *RASC Calendar* as well as his duties as National President. He is a very busy man.

The next meeting will be held March 6, 2004 in Toronto. This was picked to be on a Full Moon weekend at Alan Whitman's request. Alan might be one of the few that will be able to see stars that weekend as he lives in the Okanagan. Until my next report.

★

Proposed Nominations for 2004 RASC Vancouver Council

Officers:

1. President: **Bill Ronald**
2. Vice President: **Nicole van den Elzen**
3. Treasurer: **Marc Verscheuren**
4. Secretary: **Ron Jerome**
5. National Representative #1: **Pomponia Martinez**
6. National Representative #2 (Alternate): **(Bob Parry)**
7. Director of Telescopes: **Phil Morris**
8. Librarian: **William Fearon**

Directors:

9. Immediate Past President: **Craig Breckenridge**
10. Councilor #1 (Membership): **Dan Collier**
11. Councilor #2 (Marketing): **Doug Montgomery**
12. Councilor #3 (NOVA Editor): **Gordon Farrell**
13. Councilor #4 (Public Relations): **Norman Song**
14. Councilor #5 (Webmaster): **Jason Rickerby**
15. Councilor #6 (Greeter): **Lee Johnson**

Trustees and Honorary President:

16. Trustee #1: **Lee Johnson**
17. Trustee #2: **Sally Baker**
(NB. President and Director of Telescopes are automatically Trustees)
18. Honorary President: **Dr. John MacDonald**

Non-Council Positions:

19. Speaker Coordinator: **Barry Shanko**
20. CAROp Committee Chairman: **Bob Parry**

Respectfully submitted by the Nominating Committee: Lee Johnson (Chairman), Sally Baker and Bill Ronald ✱

Ken Crowell Lecture: *Magnificent Mars*

Author and Astronomer Ken Crowell – *Magnificent Mars*

The H.R. MacMillan Space Centre and the Royal Astronomical Society of Canada – Vancouver Chapter, proudly present author and astronomer Ken Crowell on his North American tour as he delivers a talk based on his new book, *Magnificent Mars*. This event takes place on Tuesday, November 25 at 7:30 PM in the H.R. MacMillan Space Centre Auditorium. Admission is by donation. 100% of all donations go towards funding special Astronomical programs and events for the HRMSC and RASC organizations.

The planet Mars has long offered the prospect of another living world in the solar system. On November 25, with an armada of spacecraft scrutinizing the red planet as never before, Ken Crowell will show you the best

colour images of Mars and describe the planet from pole to pole, exploring Martian geology, the Martian atmosphere, Martian volcanoes, and Martian water, all organized around the four great elements of Mars: Earth, Air, Fire, and Water. Along the way you'll see nearly every image from his new book *Magnificent Mars*, including volcanoes over twice as tall as Mount Everest, canyons that could stretch from British Columbia to Ontario, and floods of water far greater than any known on Earth. Billions of years ago, on a world warmer and wetter, Mars may have given rise to life whose fossils await discovery today. With its large format, superb images, and compelling text, *Magnificent Mars* is the next best thing to standing on the red planet itself. In future years, NASA will launch numerous missions to Mars, and *Magnificent Mars* is the definitive guide to what these spacecraft will see. Indeed, the

first human explorers to Mars may want to take a copy of *Magnificent Mars* aboard their spaceship.

Ken Crowell is an astronomer and author in Berkeley, California, who earned his Ph.D. from Harvard University. He is the author of several highly acclaimed astronomy books, including *Magnificent Universe*, *See the Stars: Your First Guide to the Night Sky*, and *Magnificent Mars*, which aims to be the most beautiful book ever published about the red planet and which Arthur C. Clarke called “superb.” His website is <http://KenCrowell.com>.

“Our little neighbour Mars will be the first New World of the century that has just dawned. Ken Crowell has done a superb job in outlining what is known, and what is suspected, about the next home of mankind beyond the Moon.

– Sir Arthur C. Clarke ✨

Members' Gallery



Lunar Eclipse
Nicole van den Elzen
8 November, 2003

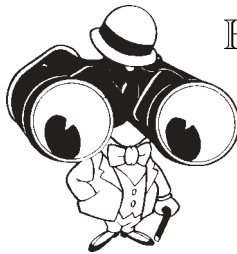
Lunar Eclipse
Gordon Farrell
17:22 - 18:02,
8 November, 2003



RASC MERCHANDISE

Available for purchase after meetings:

Calendars	\$14.00
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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