

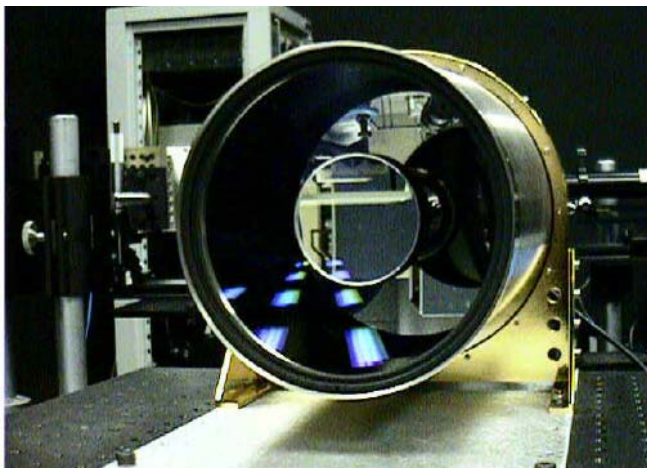
<http://www.astro.ubc.ca/MOST/index.html>



# Skynews



*What is it?*



*Contact Us On-Line*

**Web Site:** [victoria.rasc.ca](http://victoria.rasc.ca)  
**Email Lists:** [rascvic-list@Victoria.rasc.ca](mailto:rascvic-list@Victoria.rasc.ca)  
**Skynews:** <http://victoria.rasc.ca/resources/email/skynews-list.htm>  
**Victoria Council members:**

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[secretary@victoria.rasc.ca](mailto:secretary@victoria.rasc.ca)  
[librarian@victoria.rasc.ca](mailto:librarian@victoria.rasc.ca)  
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[newmembers@victoria.rasc.ca](mailto:newmembers@victoria.rasc.ca)  
[web@victoria.rasc.ca](http://web@victoria.rasc.ca)

*Cheers, Joe Carr, Webmaster, RASC Victoria Centre*

**Address Change? Information Incorrect?**

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 Fax: (416) 924-2911  
 E-Mail: [rasc@rasc.ca](mailto:rasc@rasc.ca) Website: [www.rasc.ca](http://www.rasc.ca)  
 Postal Mail: RASC, 136 Dupont Street, Toronto, ON, M5R 1V2, Canada

**RASC Victoria Council**

**This Month**

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Members at Large:  
 Bill Almond, Sandy Barta,  
 Li-Ann Dorrance, Jim Hesser,  
 Ed Maxfield, Frank Ogonoski,  
 Blaire Pellatt, Bruno  
 Quenneville, Colin Scarfe

New Members Liason:  
 Sandy Barta

Every  
**CLEAR**  
 Friday

**Astronomy Cafe**

At Sandy Barta's, 2949 Michelson Road,  
 Sooke, BC  
 Call 642-0205 for more information or  
 directions.  
 And please, please, please, need directions!

The Astronomy Café is an informal  
 conflat and if it's clear (and you are willing  
 to give up our "hairs") we observe  
 under a very dark sky.  
 Newcomers are most welcome.

Observe and enjoy!

**Please:**

**Call or check our website to find out  
 if it's likely to be clear.**

**NOTICE!**  
**No Café this summer**

June  
 27

**New Observer's Group  
 At Sid Sidhu's:**

1642 Davies Road (off Millstream Lake  
 Road) at 8:00 PM.  
 Call 391-0540 for more information or  
 directions

Sept  
 10

**September Meeting**

University of Victoria, Room 060  
 Elliott Building



**Star Parties  
 Cowichan Valley Starfinders  
 July 25th - July 28th**

**Victoria RASC  
 September 20**

**Yes, We post important,  
 timely, member-related  
 news to our email list.**

Online information about the RASCVic  
 and Skynews email lists:  
<http://victoria.rasc.ca/resources/email/>

*Future Meetings*

**August 9**

Summer Picnic! Come and meet the new Pearson College Astronomy teacher. Details will come in the racoon's summer newsletter.

**September 10**

Members' Night. Share your summer adventures and past year's projects. Just let Rich Willis know what you have to offer by the end of August.

*CVSF Island Star Party*

**July 25th - July 28<sup>th</sup>**

At the Victoria Fish and Game Association, Holker Road (on the Malahat).  
Registration fees: \$15 single and \$20 couple or family with children under 16.  
Fee includes tickets for daily door prize draws, lectures and camping on site. One hour or 3 days same price.

**Coming soon: Celestron Telescopes**

**We are now dealers for TeleVue and ScopeTronix**

**Island Eyepiece and Telescope**  
 **Vancouver Island's source for astronomy**  
Orion, Antares, William Optics, Skywatcher  
EZ-Telescope, Skypieces, Rigel, Telrad  
Thousand Oaks, Sirius Optics, Focus Knobs  
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Island Eyepiece and Telescope  
Phone: 250-743-6633  
Email: sales@islandeyepiece.com  
**www.islandeyepiece.com**  
We Ship World Wide

**Visit our showroom:**

647 Hunter Place, Mill Bay, BC

**Please see the following link for location and hours.**

<http://www.islandeyepiece.com/showroom.htm>

[sales@islandeyepiece.com](mailto:sales@islandeyepiece.com)

*President's Message*

While spring this year has not always provided us the clear skies we would like to have, we certainly got the weather we wanted on May 10, Astronomy Day.

Sunny skies drew many visitors to our telescopes in front of the Royal B.C. Museum that day to get a glimpse of the Sun, and many people enjoyed the excellent displays and speakers we had inside the museum. A good number of people made it up Little Saanich Mountain that evening to look at the Moon, Jupiter and various faint fuzzies. My thanks to Sid Sidhu, Sandy Barta and all the volunteers who made this year's Astronomy Day another big success.

Now that summer is upon us, we have many observing opportunities to look forward to in the coming weeks. Mars will be closer to Earth in August than it ever will be in our lifetimes. So get out there and check out Mars' inscrutable faces for yourself.

I am looking forward to Friday and Saturday evenings up at the Dominion Astrophysical Observatory helping the Centre of the Universe people spread the good word about astronomy. These evenings are also great for checking out other telescopes and getting good observing tips from fellow RASCals.

At the end of June, the General Assembly of the national RASC takes place in Vancouver, and I hope to see many people from Victoria there. This GA will be a great opportunity to meet old friends and make new ones from across Canada.

On the last weekend in July, our good friends at the Cowichan Valley Starfinders will host their annual Star Party at the Victoria Fish and Game Association near the Malahat Summit. This star party means more than good observing, There are also good speakers, good friends, good food and good times. Don't miss it.

Our centre will have a summertime gathering on August 9, our annual picnic at the Pearson College observatory. The Victoria Centre Star Party will take place just before the autumnal equinox, the weekend of September 20 at the Victoria Fish and Game Association. Both these events are great fun, too.

There are all sorts of great opportunities for every one of us to get out and enjoy the summer and enjoy our hobby. I hope to see you all at one or more of these activities. Even if you find it difficult to escape the comforts of your armchair as I do, I can assure you that every one of these events fully pays back the effort of getting out in enjoyment and good memories.

And don't forget all those other nights where the skies will open up for our enjoyment. Get out your binoculars and your scopes, and enjoy the wonders of the universe!

*Chris Gainor*

The deadline for the next issue of Skynews is

**August 25, 2003**

Get your Skynews early and in colour. Tell Laura, our Treasurer, that you get Skynews on line and we won't mail you a copy.

*The Cover*

**Sid at the Centre**

I finally saw the new diagonal on the 16" this Saturday. It looks great; I can't wait to hook up the Astrovid video unit for some stunning lunar views.

*David*

**Wanted**

I'm a novice astronomer and Victoria RASC member and I'm looking for used, reasonably-priced astronomy books, especially reference books (e.g. sky atlases and deep sky companion books as well as books on star names, binary stars, deep sky objects, Messier objects, and observing in general; also classics such as Burnham's Celestial Handbook, Starlight Nights (Leslie Peltier), etc. I'm open to suggestions as well...

I'm just starting to build a personal library and am looking for used books where I can. If any of you has any books you're done with which you'd like to sell or know of anyone who might, please do let me know.

Steven Ballantyne  
Office phone: (250) 370-3305 (voicemail)  
Home email: [steven.b@telus.net](mailto:steven.b@telus.net)

*Thanks, Steven*

**Summer Vacation**

Taking a vacation up-island? Here are a couple of clubs to touch base with:

**Comox Valley Astronomy Club**

John C. McKee  
1758 Greenwood Crescent  
Comox, BC V9M 4C8  
Phone: 250-339-3090  
[jcmnt@shaw.ca](mailto:jcmnt@shaw.ca)

**Island Stargazers**

Richard Fortier  
4716 Fairbrook Crescent  
Nanaimo, BC V9T 6L7  
Phone: 250-751-0895  
Fax: 250-751-0895  
[sayurich@telus.net](mailto:sayurich@telus.net)

Check out other clubs: <http://www.skynewsmagazine.com/pages/clubs.html>

*15 Minutes of Fame*

Bonnie Bird, Executive Secretary, Royal Astronomical Society of Canada thought you might be interested ...

Hello, My name is Adrienne Conley and I am a field producer with Trading Places, a reality-based television show on the Life Network. Trading Places is a 13-part television series airing Tuesdays at 9 p.m. EST and Sundays at 12 noon EST on the Life Network. Now in its second season, Trading Places takes two families and gives them the rare opportunity to experience what it's like to live another person's life.

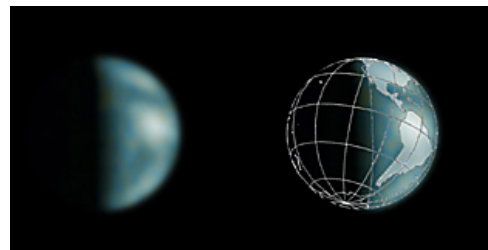
We are always searching for people who have interesting careers and/or hobbies. The idea is that we swap two families and each of the individuals has to live in the other person's shoes. That means they switch jobs, hobbies, friends, and sometimes, even family. If you know of anyone in your hobby who would be interested in participating, please let us know.

Please do not hesitate to email or call me toll free if you have any questions.

Adrienne Conley  
Field Producer, Trading Places  
Partners In Motion Inc.  
Phone: (306) 545-1635  
Toll Free: 1-877-302-4333 ext. 747  
Email: [aconley@partnersinmotion.com](mailto:aconley@partnersinmotion.com)  
[www.partnersinmotion.com](http://www.partnersinmotion.com)

**Snapshot**

Have you ever wondered what you would see if you were on Mars looking at the Earth through a small telescope? Now you can find out, thanks to a unique view of our world recently captured by NASA's Mars Global Surveyor (MGS) spacecraft currently orbiting the Red Planet.



Image

Credit:  
NASA/JPL/Malin Space Science Systems

### *JoeTourist Continued*

found in the Teaching article to find websites and other interesting material to be found in the rest of the Handbook. You will soon find your curiosity is kick-started, so don't be surprised when you get totally immersed in astronomy. The trick will be to keep limits on your research, especially when it comes to browsing astronomical websites!

I would suggest you skip several of the following sections of the Observer's Handbook until you get to the end of the Optics and Observing section. You should read The Observing Logbook article, and make plans to keep a logbook or simple journal when you start your observing. Follow the simple suggestions in this article, and you will get the most out of your new-found interest in astronomy.

The all sky maps in the back of the book are useful for a beginner, and the map of the moon mid-way through the Handbook shows the major lunar surface features. There are some interesting articles in the rest of the Handbook that can give a beginner some background information, but the more esoteric charts and graphs are to be avoided until your knowledge of astronomical theory is more advanced. Check out The Sky Month By Month section, but just read the text descriptions of the planet movements and try to not worry about the astronomical jargon and figures. The rest of the Handbook offers too much technical detail for the beginner, but don't worry about it – there will be lots of time to expand your knowledge of astronomy!

Purchase this book on the RASC website (URL above), or join RASC and receive the Handbook as part of your membership.

*Joe Carr*

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### **Comets**

Kevin Fetter posted this heads-up to the National RASClister. I'll expect some fantastic covers for the 2004 *skynews*! Next year looks interesting for comet watching. Here are three comets that might get bright next year

C/2001 Q4 Neat: <http://cfa-www.harvard.edu/iau/Ephemerides/Comets/2001Q4.html>

C/2002 T7 (LINEAR): <http://cfa-www.harvard.edu/iau/Ephemerides/Comets/2002T7.html>

C/2003 K4 (LINEAR): <http://cfa-www.harvard.edu/iau/Ephemerides/Comets/2003K4.html>

And Mike Boschat forwarded this link to a Comet Chasing page for June with information and finder charts. Keep checking out this resource provided by Greg Crinklaw: <http://www.skyhound.com/sh/comets.html>

Greg is an astronomical software developer.

Cloudcroft, New Mexico, USA (33N, 106W, 2700m)

SkyTools Software for the Observer: <http://www.skyhound.com/cs.html>

Skyhound Observing Pages: <http://www.skyhound.com/sh/skyhound.html>

### *Greeting from the Centre of the Universe!*

#### **June**

Summer is approaching quickly and the Centre of the Universe is gearing up for a fabulous summer of great programs, clear skies and beautiful stars. We are still open Saturday nights from 7 to 11 pm for viewing on the Plaskett Telescope and Friday nights from 7 to 11 pm for small telescope observation as well as daily from 10 am to 6 pm. Don't forget that starting in July, we will be open on Sunday nights for family themed nights. Come on up and meet our new summer staff, Stasia, Laurie and Melissa. For more information on program schedules, check out [http://www.hia-ihc.nrc-cnrc.gc.ca/cu/events\\_e.html](http://www.hia-ihc.nrc-cnrc.gc.ca/cu/events_e.html)

For those of you who may have visitors coming in for the summer, or if you are interested in exploring some other attractions on the Saanich Peninsula, the Centre of the Universe has partnered with the Victoria Butterfly Gardens and Mineral World to offer a 3-for-1 admission coupon. Enjoy all three of these attractions for the price of two. Passes are sold at the front desk of the Centre.

Summer is officially here when the sun reaches its most Northern part of the sky on June 21 at 12:10pm. The Summer Solstice signals the beginning of summer in the Northern Hemisphere and the longest "day" of the year. Summer stars are up in Victoria with the summer triangle being quite predominant. Vega, Deneb and Altair form a beautiful bright triangle across the Eastern Skies. The Big Dipper is high in the Northwest. You can use the arc of the handle of the Big Dipper to "arc" to a bright orange star in the south. This star is Arcturus, part of the constellation Bootes, also known to some as the giant ice cream cone in the sky. Between this star, and the top of the summer triangle, Vega, you can draw a line and pass through the beautiful Corona Borealis, a smiley face constellation and the Keystone shape of Hercules, the great warrior.

In June, look to the West to see Jupiter just after sunset. Jupiter sets just before midnight this month just as Mars is rising in the East. Both planets will seem to have a close encounter with the moon this month; Jupiter will be 4 degrees South of the Moon on June 4th and Mars will be 1.7 degrees North of the Moon in the early morning of June 19th.

For more information on what is up in Victoria skies, please visit: [http://www.hia-ihc.nrc-cnrc.gc.ca/public/sky\\_e.html](http://www.hia-ihc.nrc-cnrc.gc.ca/public/sky_e.html)

Next Month's Issue: More on the Summer Constellations and the Band of the Milky Way Galaxy

If you have any questions, don't hesitate to call us at 363-8262 or check out our website at <http://www.cu.hia.hrc.gc.ca/>

*Happy Star Gazing and Clear Skies!*

*Cassie*

*The Space Place*



**Eggs in the Air**

The sky will be filled with flying eggs on May 10, 2003, when a thousand students converge on The Plains, Virginia, for the first-ever national high school rocketry competition.

Called the Team America Rocketry Challenge (<http://www.rocketcontest.org>), the competition sets the goal of flying a custom-built, two-stage rocket carrying two raw eggs to a height of exactly 1,500 feet, and then returning the eggs to the ground unbroken. The team that comes closest to 1,500 feet without breaking their eggs will win the national title.

The competition is being organized by the Aerospace Industries Association and the National Association of Rocketry (NAR). NASA administrator Sean O'Keefe will attend the final event.

"The idea is to get kids interested in the world of aerospace," says Trip Barber, director of the competition and vice-president of the NAR. "And they will learn some important lessons about the power of math and science-and cooperation and teamwork-along the way."

To develop their designs, the students first used computer simulator software provided by NAR. Then they had to apply old-fashioned ingenuity and craftsmanship to bring the design to life and flight testing to refine it.

Students constructed rocket bodies using a combination of hobby-store rocket kit parts and custom materials. A typical rocket might consist of cardboard tubes from paper-towel or wrapping-paper rolls, a pre-made nose cone, rocket-kit body segments cut to size, and light-weight, balsa wood fins. But the greatest challenge for many was designing the compartment for the eggs.

Some used plastic Easter eggs as casings, padding the inside with bubble wrap, foam peanuts, or even gelatin. Others decided not to "reinvent the wheel," making a cradle from the egg-crate material used for shipping eggs. Some chose to make larger, more powerful rockets big enough to carry the eggs inside, while others made smaller, more efficient rockets that have a bulging egg compartment mounted on top.

*Continued on page 6*

*JoeTourist Continued*

Part 2 describes what to observe with your new astronomical gear. From observing during daylight, through to observing the planets, and deep sky objects – it is all described in easy to read detail. Star hopping and other navigation techniques are also described, with detailed diagrams to guide you every step of the way. Where NightWatch gave you the basics, this book gets into the practical detail, and yet at the same time leads you step by step so you have little chance of failing.

Part 3 gets into a subject I am very much interested in – astrophotography. This part of the book starts out with the beginner in mind, but quickly gets into detail that is well beyond the capabilities of a beginner to follow through with. For starters, this part of the book describes additional photographic gear that can easily cost thousands of dollars. The techniques described are still considered basic, but only in context of the field of astrophotography – where technical hocus pocus is the norm rather than the exception. So if you still consider yourself a beginner when you get to this part of the book, you might want to just scan some of the more interesting bits, and get back to it later. There is enough detail in this part of the book to keep the beginning astrophotographer busy for quite awhile. For more detail in this area, Michael Covington's book *Astrophotography for the Amateur* is recommended (but not reviewed here).

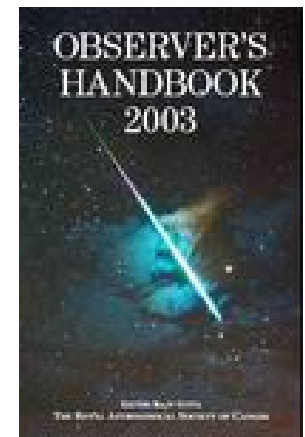
***The RASC's Observer's Handbook, 2003 edition***

[ISBN 0-9689141-2-8]

Website: <http://www.rasc.ca/publications.htm>

CDN\$26.70 + s/h

The Royal Astronomical Society of Canada's flagship annual publication is the *Observer's Handbook*. To be honest, as a beginner I find this reference book a bit intimidating at first glance. It has the look of a scientific journal, but if you dig around, there is some gold for the beginner. The Introduction section contains a useful listing of websites to start out with (see Selected Listing of Internet Resources), and the following article *Teaching and the Observer's Handbook* is an excellent starting point for beginners to read through. As mentioned in first installment of *JoeTourist*, *The Beginning Amateur Astronomer*, you should keep your goals attainable. Work through each subject presented in the *Teaching* article, using it as a study guide. Use the references



*Continued on page 11*

*JoeTourist,  
The Beginning Amateur Astronomer:  
Part 2 Continued*

Last month, we learned about two easy to read books. This month, Joe features another easy read book. The last book isn't such an easy read (RASC Observer's Handbook), but it is such a superb source for authoritative information about astronomy, that it has to be mentioned as a possibility for beginning astronomers.

***The Backyard Astronomer's Guide, Second Edition 2002***

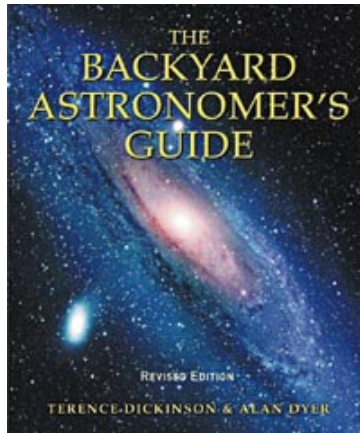
[ISBN 1-55209-507-X]

Website: [www.backyardastronomy.com/](http://www.backyardastronomy.com/)

CDN\$49.95 (retail)

This book builds on what was presented in NightWatch, and as it turns out, both books are co-written by Terry Dickinson.

There are three main parts to this book: astronomical gear, observing, and astrophotography gear. NightWatch is 176 pages long, however Backyard is 336 pages long – you are not going to sit down and read this book cover to cover! That said, I have probably read most of every chapter in the book over the last six months. The book is easy to read, and the material is mostly easy to understand, since the concepts are so well explained and illustrated with superb diagrams and photos. By the way, the astrophotos appearing in both books are largely taken by amateur astrophotographers (including the authors). This is certainly an inspiration to us all to achieve better!



Part 1 discusses binoculars, telescopes, eyepieces and filters in detail, and what to expect from this gear. There are details about what accessories make sense to purchase, and which ones are of questionable value. A rule of thumb in high tech retail is that when a customer purchases a high value item (such as a good quality telescope), they will spend 50% of the original purchase price on accessories and gadgets within the first six months of ownership. Read this part of the book carefully, and you can avoid buying add-ons that just stay in their cases, never to be used again. If you do in fact spend that 50%, you can make purchases which will enhance your enjoyment of your new found hobby.

*Continued on page 10*

*The Space Place Continued*

A hundred unique designs will be put to the test in Virginia. Only one will win. But for the students, the real prize has already been won: Learning an approach to problem-solving that works, whether you're launching eggs over a field or sending astronauts to Mars.

In the end, it's all about the future: Future technologies and the kids who will grow up to create them. Many advanced technologies are being developed now by NASA's New Millenium Program (<http://nmp.nasa.gov>). Who will do that work in the future? Perhaps some kids who spent their weekends launching eggs in the air.

Are you a kid? Would you like to build your own rocket? Visit NASA's Space Place and learn how to make a bubble-powered rocket!

(<http://spaceplace.jpl.nasa.gov/rocket.htm>) It won't take you to Mars, but it's a good way to get started.



A Boeing Delta II (7326) rocket launched the New Millennium Program Deep Space 1 spacecraft on October 24, 1998.

*by Patrick L. Barry*

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.

*Canada's First Space Telescope*

**Launch: June 30**

Watch the Skies Overhead! The Canada's first space telescope, the MOST Microsatellite, is scheduled to be launched on a Russian "Rockot" launcher at 3am PST on June 30th 2003 from Plesetsk Russia. MOST stands for "Microvariability & Oscillations of Stars". The MOST mission is to perform ultra-high-precision photometry on stars to a precision of one part per a million in brightness. Photometry is the measurement of the brightness of stars. To put the sensitivity of the MOST instrument in perspective, when you are admiring the lights of Port Angeles from Clover point (which are roughly 30km away) move your eye 15mm closer. The lights of Port Angeles are now one part per a million brighter.

The MOST telescope is only 15cm in aperture. Small enough to fit on your kitchen table, in fact, at one point I had the primary mirror for the MOST telescope on my kitchen table. It's a standard Maksutov-Cassegrain design, but with a twist. The telescope is fitted with an array of 36 Fabry microlens, which image the pupil of the telescope onto the detector. The image from each Fabry microlens is spreads over roughly 1400 pixels to so the ultra high precision can be achieved. With the addition of twin 1024x1024 pixel space grade CCD's (don't we all wish we had just one CCD this size) this tiny telescope is ready to do the work for the professionals.

The MOST science team, lead by University of British Columbia professor Dr. Jaymie Matthews, plan to use this tiny telescope to tackle such big questions as the age of the Universe, the secrets of planets orbiting other stars, and how the atoms which make up planets escape from the stars. You may ask, why not just do this from the ground? Two reasons: First, Viewed from the ground, stars twinkle due to turbulence in the atmosphere, the twinkling would dwarf the minute variations in brightness that MOST will measure; Second, such things as the day and clouds interrupt observations from the earth. From orbit, MOST will be able to continuously observe one star for 58 days non-stop. Talk about marathon observing runs!

The telescope has been built with an RASC connection. The Optics were designed by myself (John Pazder, member of the Victoria Center), and the telescope optics were manufactured by Peter Ceravolo, well known Optician and member of the Ottawa RASC. Peter and I assisted University of British Columbia and Spectral Applied Research in Toronto in the telescope optomechanical design, testing, and integration. This, and the contributions of many engineers and scientists across Canada from Victoria to Halifax with funding from CSA have built this space telescope.

*Continued on page 8*

*Dem clouds Continued*

I encourage you to read the recent articles in JRASC (Dec 2002 and Feb 2003) and visit the MOST web site [www.astro.ubc.ca/MOST](http://www.astro.ubc.ca/MOST) for more information. Daily reports on the MOST launch preparations can be read on the Eurockot web site [www.eurockot.com](http://www.eurockot.com) under "Rockot Multiple Orbit Mission Daily Reports".

*John Pazder*



MOST Mission Scientist Jaymie Matthews with Satellite and Instrument at UTIAS-SFL