

<http://winnipeg.rasc.ca/>



RASC Winnipeg Centre - Mozilla

Royal Astronomical Society of Canada
Winnipeg Centre

Sun May 11 15:15:10 CDT 2003 <- - what is this?

Lunar Eclipse
Thursday, May 15
Public viewing will be held at two locations. See the [events page](#) for details.

4 days to full

Members Area

Winnipeg Centre Information

- What is [RASC??](#)
- [Meetings and Events Updated!](#) 2003-May-11
- [Observing / Group Projects](#)
- [Winnipeg Centre's Shareware Page](#)
- [Astro-Want-Ads](#) Astronomy equipment wanted, and for sale, on the Net.
- [New local Links Updated!](#) 2002-Aug-08

Links

- [Astronomy Links](#) - Useful pages for astronomers [Updated!](#) 2002-Dec-15
- [The Manitoba Planetarium](#)
- [How to calculate field-of-view](#) - Thanks to Chris Brown.

Ask an astronomy question, request more information or a brochure
[CLICK HERE!!](#)

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Last updated Sunday, 11-May-2003 12:38:22 CDT

Send all comments and complaints to [Wpg RASC](#)

Skynews



Images: (c) David Lee 2003

february 3rd to 6th 2003

- eyepiece projection - closeup of moon
- crescent moon with earthshine
- jupiter with 4 satellites - colour image composite
- closeup of jupiter - from 15 images stacked with Astrostack 2



This Month

May 14, 2003

Chris Willott:

Enormous black holes in the centres of galaxies

Black holes are a favorite of science fiction stories, but in recent years astronomers have come to accept their existence as a natural consequence of the laws of gravity. It is now thought that all reasonably large galaxies have massive (more than a million times the mass of the sun) black holes at their centres. I will discuss the evidence for the existence of these black holes and the important roles they play both in the way that galaxies formed and the way we observe the distant universe.

Chris is a Research Associate at the Herzberg Institute of Astrophysics. He has worked as a postdoctoral researcher at the University of Oxford (2000-2002), the Instituto de Astrofisica de Canarias in the Canary Islands (1998-2000). He has a PhD from the University of Oxford (1995-1998).

Contact Us On-Line

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

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- librarian@victoria.rasc.ca
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- newmembers@victoria.rasc.ca
- web@victoria.rasc.ca

Cheers, Joe Carr, Webmaster, RASC Victoria Centre

Address Change? Information Incorrect?

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RASC Victoria Council This Month

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

New Members Liason:
 Sandy Barta

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

Every
CLEAR
 Friday

May
 23

June
 11

Astronomy Cafe

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

And you **WILL** need directions!
 The Astronomy Cafe is an astronomy conflagration that is clear (and well) willing to give you a comfy chair to observe under an unbelievable dark sky.
 Newcomers are most welcome.
 Come and enjoy!

Please:

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

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

June Meeting

University of Victoria, Room 060
 Elliott Building

CVSF Star Party

July 25th - July 28th

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

Future Meetings

**June 11 Falk Herwig, Post Doctoral Fellow at the
University of Victoria**

August 9 (tentative) Summer Picnic

CVSF Island Star Party

July 25th - July 28th

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.

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
Dry Eye, SunSpotter, Speers-Walser
Island Eyepiece and Telescope
Phone: 250-743-6633
Email: sales@islandeyepiece.com
www.islandeyepiece.com
We Ship World Wide

**Coming soon: Celestron
Telescopes**

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

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

President's Message

Canada's space program is nearing a turning point as it enters its fifth decade. Much of the communications satellite work that the government supported in the past has gone to the private sector, the equipment Canada built for the International Space Station is now on orbit or ready to fly, and Canada is about to launch its first scientific satellites since 1971.

Marc Garneau, the former astronaut who now heads the Canadian Space Agency, has proposed a new direction for Canada in space: towards Mars. Canadian firms built some equipment for NASA that went to Mars in 1997 on the Mars Pathfinder mission, and a Canadian experiment is supposed to arrive at Mars early next year on the Japanese Nozomi spacecraft.

Garneau wants Canada to take part in upcoming NASA and European Mars exploration efforts, and perhaps one day include Canadians in human expeditions to the Red Planet.

To start off, he proposed that Canada spend about \$200 million to supply drilling and sampling equipment aboard a Mars lander that NASA hopes to launch late in this decade. Unfortunately, the Canadian government turned the proposal down.

It is very unfortunate that the federal government has rejected this proposal, which would help keep Canada in the front ranks of space faring nations and provide work that builds on our successes with space robotics on the Canadarm.

While the federal government deserves criticism for this decision, it should be tempered with the knowledge that this government has been more generous with technology and scientific research than its predecessors, and it deserves praise for proceeding with some important astronomical research.

But Canada needs to give stronger support to astronomy, space research and space exploration than it does at present.

What is more interesting about this situation is that it has been almost totally ignored by Canadian media. While Garneau's original proposal to go to Mars got some coverage, the only information I have seen about the rejection of his spending proposals is in American media.

It will be up to people like us to work even harder to put astronomy and space on Canadians' radar screens, and to put pressure on the federal government to give greater support to space research.

Chris Gainor

The deadline for the next issue of Skynews is

June 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

Friday Collage

Looks like the good weather ran out this week. It's Friday and out the window it's just pasty grey clouds. Despite some finicky equipment, the night sky released some usable images. The Fuji S2 camera works well but almost gave me a heart attack last night when it totally seized up when imaging Jupiter. Fresh battery clip too. ... well almost — I forgot about the secondary battery system that runs the LCD display and internal flash. It really does cause problems when they go. I should have taken them out for astrophotography because the camera will function without them and you have to take them out when they do go dead or they cut off power to the camera ... even when you attach the AC adapter. That's what really confused me. As soon as I removed them, the camera worked fine. Oh well, it's a learning experience. I've also started to see the disadvantages of an interchangeable lens system. Dust!

David

For Sale 16" Dobsonian

Price \$3000.00

(Buyer arranges shipping and handling or Pick up)

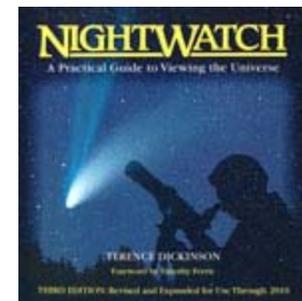
- Optics:** 16F4.5 Meade main optics
4" Meade secondary
Meade 8x50 finder
- Focuser:** 2" to 1.25 rack n' pinion
- Main Cell:** 9 point flotation system
3 adjustment bolts
3 lock down bolts
- Secondary:** 4" diagonal
4 vane system
- Bearing Wheels:** 16" diameter
- Construction:** Ranger board 3/4"
Tube is Meade (cardboard) heavy duty
Nylon bearing pads
Ground board 1" Plywood
- Design:** Coulter style, main mirror cell drop down. Main mirror is removable and has its own storage case. This case was specially made for the main mirror. The scope is gloss black in colour.

Pictures by request

Contact: Ron P.Bell 250-889-0091

JoeTourist Continued

of detail to explain: how to navigate the night sky and find things; how to read charts (and they include beautiful charts); how to use binoculars, telescopes and plain old eyes to stargaze; explain the differences between double stars, variable stars, star clusters, galaxies, nebulae, asteroids, planets, meteors, comets and auroras; what to look for when buying telescopes, binoculars and other astronomical gear; what to expect if you decide you want to photograph the night sky. This is a book you can read from cover to cover.



Reading the chapters in sequence will give you a tutorial on astronomical basics. Skip chapters you are not currently interested in and come back to them later. There is nothing in this book that the beginner can't master.

TO BE CONTINUED

Cheers, Joe Carr

From the Centre of the Universe!

Summer Hours:

Daily 10 am to 6 pm
Friday and Saturday Night Star parties from 7 pm to 11 pm.

We are open on Saturday nights for viewing with the 1.8 m Plaskett Telescope. Starting Friday, May 2nd, we are open Friday nights for small telescope observing and programs until the end of August. In July, we will be adding Sunday nights to our evening openings. Sundays will be dedicated to families with a different theme each night, craft activities and treasure hunts along with our regular programming. (Please note: The Plaskett Telescope is only available for viewing on Saturday nights.)

For more information on hours or program schedules, check out:

http://www.hia-ihc.nrc-cnrc.gc.ca/cu/events_e.html

New products at the Centre!

The Centre of the Universe gift shop is now carrying binoculars and telescope accessories as well as some fantastic new books! Drop by to check out what's new!

Clear Skies! Cassie

JoeTourist,

*The Beginning Amateur Astronomer:
Part 2*

Since the last JoeTourist article, the weather on Vancouver Island has been cloudy and wet. These conditions mean it is a good time for armchair astronomy, so books for beginners are the subject of this month's article. There are many other astronomy books on the market suitable for the beginner, but the first three are easy to read. The last one may not be so easy to 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.

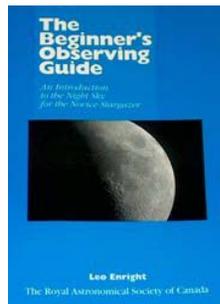
The Beginner's Observing Guide, Third edition

[ISBN 0-9695804-5-2]

Website: www.rasc.ca/publications.htm

CDN\$14.00 + s/h

This Guide is a publication of the Royal Astronomical Society of Canada, and it is written specifically for beginners. This is the best beginner's book, and is small enough to take with you when you are observing. There are six fold-out star charts and basic observing lists for each, covering the whole year's sky. Instructions for how to find North, names of some stars, information about purchasing and using telescopes and binoculars, questions you always wanted to ask but were afraid to ask, and basic information and explanations covering all the phenomena you will see in the sky are all covered in this excellent book. It is not expensive, and should be your first purchase as a beginner.



NightWatch, Third edition

[ISBN 1-55209-300-X (bound), 1-55209-302-6 (paperback)]

Website: www.fireflybooks.com/books/3026E.html

CDN\$29.95 (retail)

NightWatch is a beautifully produced and printed book, and qualifies as a coffee table book. It also just happens to contain a perfect mix of information aimed at the wannabe astronomer or the beginner. There is a terrific introduction to the universe and how it works in Chapter Two, which, if you work your way through it carefully, will give you a basic knowledge base from which you can build your interest in astronomy for years to come. The book gives just the right measure

Continued on page 12

General Meeting Minutes

April 9, 2003, 7:30 pm at UVic

Welcome: Chris Gainor welcomed everyone to the meeting.

Chris congratulated Sid Sidhu for his article in the Times-Colonist. Chris also reminded everyone that our web site address has changed and the content and layout has been updated. Please have a look.

Reminder: Cowichan Valley Star Finders host the Island Star Party July 25th to 28th and the RASCals Star Party is September 19th to 21st.

Sidewalk Astronomy: Blaire Pellatt is coordinating a sidewalk astronomy session Friday night at the Oak Bay Library at 7:30pm. If you are interested please collect a form and a map from the front table after the meeting and show up.

Treasurers Report: Lauri Roche reports our current bank balance as of is \$6981. Council will need to decide on the projects to spend the gaming money at the next council meeting. If anyone would like to see the treasurer's report, she can provide you with a copy. Lauri also reminded everyone that they can order subscriptions to Sky & Telescope through her at a reduced rate over the general public rate. Members also get a 10% discount on all Sky Publishing orders submitted through the centre. She also reminds everyone to sign up for Internet delivery of our SkyNews newsletter to help reduce the centre's mailing costs.

Astronomy Day: May 10th at the Royal BC Museum. Sid reports the speakers are all lined up. Telescope displays are planned. We need volunteers for a wide variety of tasks. Setup will be Friday afternoon and possibly early Saturday. The museum opens to the public at 10am Saturday. Clean up will be Saturday from 5:30 to 6:30pm. Please volunteer! Sandy Barta is the volunteer coordinator.

Library and Telescopes: Sid Sidhu asks that people return borrowed books to the library. The library will be open after the meeting for members to borrow books. Sid also asks everyone for recommendations on new titles for the centre to purchase for the library.

Sid also thanked the school telescope program volunteers. If you would like to volunteer to help out at a school event, please see Sid. The next night is tomorrow at Rogers school at 7pm.

Tonight's Speaker: Ernie discussed a wide variety of observing techniques, telescopes and accessories, methods, drawings, photos, and stories covering 65 years of his backyard observing of Mars (and other planets too). He explained how much is possible with very basic equipment and careful observing at the eyepiece. By the end of the night he had us all believing we too could have satisfying results even from the light polluted suburbs.

Robert Walker, Recorder

The Space Place



In Search of Alien Oceans

A robotic submarine plunges into the dark ocean of a distant world, beaming back humanity's first views from an alien ocean. The craft's floodlights pierce the silty water, searching for the first, historic sign of extraterrestrial life.

Such a scenario may not be as fantastic as it sounds. Many scientists believe that Jupiter's moon Europa conceals a vast ocean under its icy crust. If so, heat from the moon's interior—which would keep the ocean from freezing solid—may also drive subaquatic volcanoes and hydrothermal vents. On Earth, such deep-sea vents provide chemical energy for ecosystems that thrive without sunlight, and some scientists even suggest that Earthly life first got started around these vents.

So a warm European ocean spotted with thermal vents could be a natural incubator for life. That's why some scientists hope that someday we will send a probe to Europa that could bore through the ice and explore the ocean below like a submarine.

To plan for such a mission, scientists would first need to put a camera in orbit around Europa. By looking for places where water has welled up to fill the spindly cracks that riddle Europa's surface, scientists can estimate where the ice is thinnest—and thus easiest to bore through.

That mission scenario presents a problem, though. Europa orbits Jupiter inside the giant planet's punishing radiation belts. Continuous exposure to such high radiation would damage today's scientific cameras, making the information they gather less reliable and perhaps ruining them completely.

That's why NASA is designing a more radiation-tolerant CCD that could be used on a mapping mission to Europa. A CCD (short for "charge-coupled device") is a digital camera's chip-like core, which converts light into electric signals.

"We've seen the effects of this radiation during the Galileo mission to Jupiter," says JPL's Andy Collins, principal investigator for the Planetary Imager Project. "Galileo has orbited Jupiter for many years, dipping inside the radiation belts only for brief intervals. Even so," he says, "we've seen clear signs of damage to its instruments."

Continued on page 6

Book

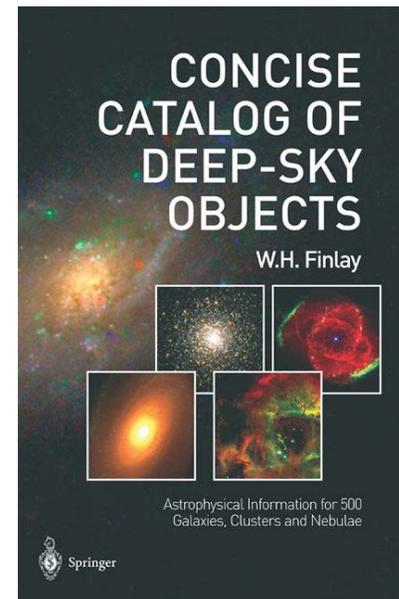
You'll be interested in this soon-to-be-released book ...
 Warren is a graduate in Engineering Physics from the U. of A. with a PhD from Stanford and now a professor in Mechanical Engineering at the University of Alberta (specializing in developing computer models of energy flow). He is working with nebulizers for use with children with cystic fibrosis. Astronomy is his hobby. He is a member of the Edmonton RASC and has his own huge telescope with which he travels all over to view the deep sky.

Cam Finlay

Concise Catalog of Deep-Sky Objects:

Astrophysical Information for 500 Galaxies, Clusters and Nebulae"
 by W.H. Finlay
 Springer, London, UK, 306 pages, ISBN 1-85233-691-9.
 expected release date July 16, 2003
 list price \$39.95 US

Here is a unique and fascinating reference book for those who want to go beyond the Messier objects! Entries for each of more than 500 deep-sky objects provide far more than the usual astronomical data — they also give fascinating facts about each object. These include physical factors, astrophysical information, evolution, unusual features — the list is almost endless. The objects are all listed in NGC number order, i.e. in approximate order of location from west to east. This is convenient for observers because interesting objects that can be seen on a given night will usually occur within a few pages of each other in the book. The Messier objects are of course included, but are also listed separately in Messier number order. Astronomers can now get an insight into exactly what they are looking at, adding a new level of enjoyment to deep-sky observing.



SIDEWALK ASTRONOMY

This phrase, made popular by John Dobson, and now in its thirtieth year, describes the practice of setting up a telescope on a street corner and offering free views of the cosmos to any curious passer-by. There are several groups across Canada and worldwide who participate in sidewalk astronomy and my goal is to make this a reality in our own backyard!

I would like to gather a group of interested members to volunteer to bring astronomy from the sky down to the street. At present, I am trying to establish observing sites at libraries around Victoria. These times would likely fall on a Thursday or Friday night. The reward of such volunteering is the joy one gets from showing the curious and unsuspecting public the splendours we all take for granted every day of our lives.

I have discussed Sidewalk Astronomy with Scott Mair (Center of the Universe) who informed me that there may be a chance to set up telescopes in front of the Royal BC Museum during the summer. This would serve as advertisement for The Center of the Universe, and what better place to showcase our skies than in beautiful downtown Victoria on a clear summer night!

During these evenings, we would also have the opportunity to inform the public about our club and other astronomy events, such as The Center of the Universe and International Astronomy Day.

These evenings would also bring members together to participate in a subject we all love. If any members feel they cannot participate for one reason or another (lack of transportation to the observation site or not owning a telescope), I will endeavor to arrange a ride or provide a "loner scope".

I will keep you posted via the website to inform you of specific dates and locations for these events.

Good Viewing/Steady Skies. Blaire

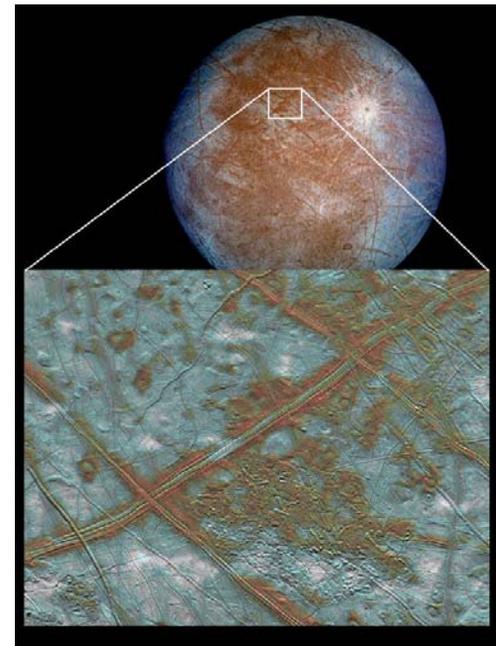
Thank you, Thank you Thank you

Astronomy Day 2003 was a total success and we couldn't have done it without all the people who volunteered their time and expertise ... our members, Uvic, the NRC's Herzberg Institute, Pearson College and even some non-members.

The Space Place Continued

By using the hardier CCD's developed by the Planetary Imager Project, a future probe could remain in Jupiter's radiation belts for many months, gathering the maps scientists will need to finally get a peek behind Europa's icy veil. And who knows, maybe there will be something peeking back!

To learn more about the Galileo mission to the Jupiter system, visit <http://www.jpl.nasa.gov/galileo/>. For children, a fun, interactive "Pixel This!" game at http://spaceplace.nasa.gov/p_imager/pixel_this.htm introduces CCDs and how a really tough one will be needed for a future mission to Europa.



Cracks on the icy surface of Jupiter's moon Europa give evidence of a liquid ocean below.

by Patrick L. Barry and Dr. Tony Phillips

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

Dem clouds won't bug me no mo', no mo'

I suppose I should start this off by eating a little humble pie, and asking your forgiveness ahead of time for what I'm about to declare.

To be straight up, I'm telling you all now — **boldly** — that I'm going to um... I'm thinking about buying uh...buying a....a.....a micro.....a *microscope!*

There. I've said it. *Out of the closet, I come!*

So what's the big deal about that you say? Maybe you think this baring of the soul comes without a price?

Not on your life.

The sleepless nights, cold sweats, pangs etc. — I won't go on.

I did a little research before I got serious about getting this new toy, and I'm hard pressed to find **any** astronomer of old that had the audacity to "*go the other way*".

The only reference I could find was that my old buddy Kepler, in a rather shady back room somewhere, inadvertently looked through Galileo's binoculars through the wrong end, and almost got nailed.

Would have been dragged away and burned at the stake if caught — heretic!

As for myself, simply trying to *justify* this planned acquisition — you think that has been easy?

Hey, - it's one thing to try and rationalize the need for a new Nagler eyepiece for my Celestron telescope, quite another to require the need to purchase a high-powered bug finder.

Remembering back, I can tell you I worked darned hard on clarifying why I desperately needed a bino-viewer with matching eyepieces for my telescope (it was safety, of course — to prevent eyestrain to my Grandson). I know that was maybe a tad weak, but how about this one: Got myself an entire set of colour filters so I could detect possible colour blindness in my Granddaughter!

Good one, eh? She's fine, by the way.

Speaking of which, feeling brave I ran it by my fine fellow the other day — primed my Grandson to tell his mother that my purchase of a good microscope would indeed enhance his education. I expected his immediate endorsement.

But all I got from him, bless his little soul, was how cool he thought it would be to use it to examine his nose dirt, or the inside of our cat's hairball. Concept obviously lost.

I remember even getting away with buying the *pulsating* Telrad — actual reason escapes me now, (something about warding off Gamma rays?), but I know it was a good one; it passed.

Continued on page 8

Dem clouds Continued

But a microscope? *A Microscope??* I really am stuck. How can I possibly warrant one?

I've not only the apprehension of trying to justify it, but I'm now getting the nervous nellies about what happens when I get this thing home, and my buddies find out that I've "*turned*"?

I can picture it now, when I show up on the hill some Saturday night with my telescope for an observing session.

The *looks*....

The snide remarks as I get out of my truck: "Turncoat!" "Mr. Atom-Hunter indeed!" "Hey Chuck, how's your de-aperture fever tonight?"

Or, when I'm not looking, people turning my telescope around, pointing the eyepiece towards the heavens.

Maybe too, someone sneaking up and gluing a postage stamp size star chart on the tube.

Will they plaster big signs on the Plaskett dome, warning of a traitor in the midst?

Or Heaven forbid, is it *possible* to be excommunicated from the Plaskett Telescope???

Oh the shame, the *shame!*

So I guess for now, at least, I'm left with respectfully soliciting your ideas for why this is an '*I need* item', not want.

Perhaps I *am* harbouring some tiny illusions of discovering some miraculous cure, or a previous unknown virus, as the protozoa and other wee beasties struggle to survive on a slide set beneath my eyes.

And nobody's yet found a cure for the common cold either. So there.

So until I do, to my buddies on the hill, just remember when you see me some Saturday night pulling in, I do only have one spare

tire.

Please,...be kind. Chuck Filtness



Handy Hint of the Day

Want to know how to convert a "Daisy" gun sight to use as a unit finder for your scope?

<http://home.att.net/~jblessin/daisy.htm>