The
Rosette Gazette

Volume 15, Issue 1 | Newsletter of the Rose City Astronomers | January, 2003

In This Issue:

ANNUAL INFORMATION FAIR

It's time for the annual Rose City Astronomers **INFORMATION FAIR**, which will be held in place of the General meeting on **January 20, 2003**.

The Fair will provide answers for those with questions regarding **membership services,** privileges, and benefits with the RCA, and you will be able to sign up or renew your membership that evening. If your resolution for the new year is to begin a new **observing program,** have we got a program for you! We can answer questions on **beginning observer, binocular, Messier, and deep sky programs, as well as Herschel I and II**, and **solar observing**. We have answers for **youths** interested in these programs as well. For tracking your program swing by the **sales** table and pick up one of the great 2001 calendars.

If you had thoughts about the origin of the universe, you may want to drop by the **Cosmology/Astrophysics SIG.**

Building your own scope? Get answers from the experts at the **telescope making** booth. Learn of the workshop facilities, location, and schedule. While you're at it you may want to ask about the homemade and manufactured scopes in the **telescope library** and check one out.

Most frequently asked question: Where's the party? Answer: Stop by the **star parties** booth for a complete list.

For those who prefer seeking their own answers, you may find certainty of this in one of the many hundreds of books and CDs in the **club library**. Jan Keiski, the club librarian also has IRS-suitable donation forms for any library donations folks want to itemize a charitable deductions.

RCA BOARD CREATES NEW SERVICE AWARD

Douglas Huston, VP Membership

The Rose City Astronomers is one of the largest, most active astronomy clubs in the United States. But, it hasn't always been that way. Originally, there were two small Portland area astronomy clubs, the Portland Astronomical Society and the OMSI Astronomers. Within these two groups, there was a core of dedicated, visionary members. These people were talented astronomers, hard workers, and enthusiastic about sharing their hobby with others. Over the years, these people took the Portland area astronomy club from less than 50 members to the

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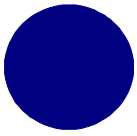
FROM THE EDITOR

Over the course of this year, the Gazette will have five issues dedicated to specific areas of astronomy. The March issue will be dedicated to articles and photos related to deep sky observing. The May issue will focus on the planets. July — solar observing, September—lunar observing. November will be dedicated to amateur telescope making.

Now that you know the topics and the schedule, sharpen your pencil, ink your quill, dust off your keyboard, get out your glass plates, tintypes, your old Brownie camera, your new CoolPix, your SBIG, your chisels, hammer and nails, and get busy! Please contact me and let me know if you plan an article or photo for these issues.

Regis

January 2, 12:23 PM



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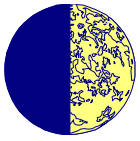

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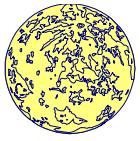

January 25, 00:33 AM

Club Officers			
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Youth Programs Director	Jenny Forrester	(503) 504-8071	jenny@theforrest.org

President's Message

By
Peter Abrahams
January 2003

I am writing this the day after the holiday meeting. This was one of our best gatherings to date. The food was excellent - (which is not a given at an astronomy meeting) - in particular there was a home made salad with spinach & shrimp, and an artichoke heart pizza, among other great dishes. The photography display was fantastic. And I especially want to congratulate the first four recipients of the RCA Galileo award for service to amateur astronomy: Chuck Dethloff, Dale Fenske, Jim Girard, and Candace Pratt.

All of this did not happen by chance; there was a lot of planning and preparation, mostly by Matt Brewster, but that evening Dareth Murray & Debra Smith-Hirschmann were working long before & after the event. The auction was a lot of fun, even though I got outbid on everything I wanted, and Larry Godsey & Jeff Henning worked many hours on that event.

We enter 2003 in pretty good condition. Our membership levels are about 450 member families, which is surprisingly large & somewhat unwieldy. Please remember that everything we do is accomplished with volunteer labor, and if there's something you'd like to see accomplished, it might likely require some volunteer effort on your part.

Best wishes for the New Year

Welcome New Members

Manuel Castaneda
Clark Martin
Tom Nathe
Rebecca Stefoff

RCA

Magazine Subscriptions

One of the main services offered to RCA members is subscriptions to *Astronomy* and *Sky & Telescope* magazines at a much reduced rate from newsstand prices. *Astronomy* $29 for one year or $55 for two years. *Sky & Telescope* is $29.95 for one year.

Checks must be made out to Rose City Astronomers to get the reduced rates.

For further information, see Larry Godsey, Subscription Coordinator, at the Membership Table at General Meetings or check the RCA website. Please note: Allow two months for your subscription to be renewed.

Sky & Telescope Store Discount

RCA members who subscribe to *Sky & Telescope* are entitled to a 10% discount at the *Sky & Telescope* online store at: *http://skyandtelescope.com/shopsky* To get your discount, enter Rose City Astronomers when prompted for your club name during checkout at the *Sky & Telescope* online store.

The "Kids" of Rose City Astronomers

RCA Kids

Children ages 4-12 are welcome to join in fun and educational activities while the grownups attend the monthly general RCA meetings. The kids' meeting takes place in the adjoining cafeteria at OMSI from 7:30 p.m. to 9:00 p.m. If you have any questions, please e-mail Jennifer at jenny@theforrest.org.

CLASSIFIED ADS

Run your non-commercial astronomy related classified ad in the monthly Gazette. Rates are reasonable (free!)

FOR SALE: Homemade Dob telescope15" porthole glass, F/7 mirror, Astrosystems Phase 4 focuser, spider, holder and 3.10 diagonal, 17MM TeleVue Plossl eyepiece, Telrad finder. Looking to sell telescope as is or components as a package. Asking $500.00 or best offer. Contact Nick Winowitch in Woodburn (503)982-2970) nickw4@att.net

FOR SALE: 22.5" f/4.1 DOB, shield, Telrad, handles, Swayze mirror, awesome images $4800, trailer available $2600. Contact Gene Dietzen (360) 834-9230.

FOR SALE: 5" Meade f/9 refractor on Losmandy G-11 mount w/digital setting circles, extras, $2650. Also available-10" reflector f/6 to fit mount ($850 extra), both have razor sharp images Contact Gene Dietzen (360) 834-9230.

FOR SALE: 3.1" Meade f/8 refractor w/ equatorial mount $250, awesome images, Contact Gene Dietzen (360) 834-9230.

FOR SALE: 8" f/8 DOB, tack sharp images, great airy disk, quick finder, 8x50 military finder, $450. Contact Gene Dietzen (360) 834-9230.

FOR SALE: 5.6" f/10 refractor OTA, 8x50 Meade RA finder, custom DOB mount w/circles and tripod, razor sharp images, good color, $1200. Contact Gene Dietzen, (360) 834-9230.

FOR SALE: 10" Meade #2120 LX 6, dec motor, Telrad ,hand held command center, with tele extender and t ring for 35mm Pentax. Good condition with heavy duty, foot locker storage case. $1000.00 OBO Alan 503-816-9850

FOR SALE: 4 inch refractor, signed Alvan Clark & Sons, Cambridgeport, Mass, 1880. With original case, 4 Clark astronomical eyepieces, Clark terrestrial eyepiece, Clark diagonal. Objective in excellent condition, no scratches or chips. With modern equatorial mount by Mizar. Finder scope not original but looks appropriate; finder mounting rings probably original. Price $9,000. Contact the owner at <dannialdunn@earthlink.net> Or contact Peter Abrahams if you don't have email. (This is the only Clark astronomical refractor I know of in this area; it is an extremely good objective lens and a beautiful telescope. The price is significantly lower than 4 inch Clark refractors have reached at auctions.)

FOR SALE: Orion, 8" Dobsonian telescope. Like new. $400. Ken Niles (503) 463-4764.

Award (Continued from page 1)

nearly 500 we have today. As anyone who has been involved with starting an organization knows, this kind of success takes a tremendous amount of work and dedication.

Recognizing the debt that the Rose City Astronomer's owes to those who's dedication and work have made the club what it is today, the Board of Directors recently created our first award: the Galileo Service Award. Named in honor of the father of modern astronomy and physics, this award was created to recognize those who have made significant and pioneering contributions to amateur astronomy and the growth and health of the Rose City Astronomers. A small committee composed of four board members met to determine the award's criteria and to propose to the whole board potential recipients for the first award. The committee decided that those receiving this award should exhibit some or all of the following characteristics:

- 10 or more years of service to the club.
- Service on the board plus active participation in club activities.
- Involvement in the organizational and administrative aspects of running the club.
- Pioneering astronomy programs within the community and the club.
- The initiation of new programs and/or activities that benefit the membership
- Assisting members with activities/programs/personal astronomical development.
- Dedication to the science of amateur astronomy and observing within the club.
- Continued support and participation in RCA activities and programs.
    - Instrumental in program development in the RCA.

After deciding on the criteria, the committee met and deliberated on potential recipients. Four outstanding members were chosen.

They are:

Jim Girard – Another former club president, Jim was an early member of the club. He is the founder of the Telescope Maker's Workshop and a co-founder of ARGO – Astronomical Research Group of Oregon. He is also one of the co-founders of the Imaging the Sky Conference, an internationally recognized conference of CCD astronomers.

Candace Pratt – Candace was one of the founding members of

(Continued on page 7) Award

Can the Cassini Division in Saturn's rings be seen all the way around the rings right now? The delightful answer is yes, and no. In a way it depends on how you want to define the word see, but then that pretty much shows this is something of a trick question.

On the morning of December 1st, Chuck Dethloff and I were enjoying a satisfyingly sharp image of Saturn through our 16" and 20" scopes with magnifications ranging from 500x to about 900x. Saturn was near the meridian in a very dark and steady sky. Along with no wind, a heavy frost and a temperature around 25F conditions were about as ideal as they get for this time of year in the Pacific Northwest.

Through the scope the orientation of Saturn was tipped up on end, giving it an even more exotic appearance than usual. Titan was a small, tight, ruddy disk that was separated from the planet by a nearly straight picket line of four fainter moons. Very nice, but the view of the rings and globe of Saturn were the main attraction. The A ring was a lightly hued grayish-slate color with a noticeably lighter outer rim. At moments, the ring would break up into a series of very fine "phonograph" ringlets, but I did not see the Encke Gap. The inner rim of the A ring, bordering the Cassini Division, also had a slightly lighter hue than the rest of the ring. The Cassini Division was a black lane that seemed to almost go completely around the rings - only a small area was apparently blocked by the globe's South Polar Region. But more on this in a moment, as this point became more interesting the next day.

A small portion of the North Polar Region was vaguely seen through the Cassini Division on the opposite side of the rings. The B ring was snow white except for the two areas of the greatest apparent curvature where a light grayish-blue shading dominated. This area also broke up into very fine ringlets on occasion. There was also a wavy appearance here giving an impression of modulated spokes. The Crepe ring was a dusky, transparent brown that was obvious as it crossed in front of the planet but more difficult to follow against the black background of space. I didn't see the color variation of the rings as mentioned in a recent Sky & Telescope article.

The globe had a thin, subtle equatorial belt that was easy to overlook, as the adjoining belt was much more directly visible. In the southern part of the equatorial region, this dark belt was a brownish-salmon color and was the most prominent feature on the globe. The South Polar Region was a light avocado color, and this color subtly spilled northward into the south temperate region. The overall color of the globe was a pale, dirty yellow. The shadow of the planet was a thin, curved sliver that hugged the eastern limb - I was surprised to see it at all because Saturn was only a few days from opposition.

Ok, back to the Cassini Division. The day after this observation Chuck and got into an email conversation about whether the Division was visible all the way around the rings. My impression was that it wasn't, but just barely. His impression was that it was, but just barely. We finally concluded that we're both right, and here's why.

During our conversation we simultaneously found the same image of Saturn on the ALPO (Association of Lunar & Planetary Observer's) website. It had been taken a week before by Ed Garfton of Houston, Texas, and presented the planet very much the way we had seen it. At Chuck's suggestion, I saved the image, enlarged it 400x and then printed it.

Hmmm.

Then I traced the outer circumference of the Cassini Division as it seemingly went behind the southern Polar Region of Saturn's globe and found that the shadow of the globe was the difference in our visual interpretations.

But it took blowing up the image this big to really be able to tell, and even then, it's still close. Note how the shadow of the globe covers just a little bit of ring A beyond the Cassini Division, right above Saturn's South Pole. If you have a printed copy of the Rosette Gazette, draw a line that continues the curve of the outer edge of the Cassini Division and you'll see that a very thin portion of the Division does indeed continue just above the globe. But since this is within the shadow of the globe, and the Division is visually dark, an interesting question can be posed – can a dark division in a shadow really be seen? Chuck and I had some fun with that, but in the end we both concluded that yes we did see it.

Thinking about our different eyepiece impressions on December 1st, it seems the magnifications we used probably made the difference. Chuck was using a little over 900x and I was using 625x because that's the highest magnification I could achieve with my binoviewer with the eyepieces I have. Perhaps I would have come away with the same impression as Chuck if I'd been using a magnification closer to 900x, but for sure this illustrates the usefulness of having the option of using super high powers when the seeing allows it. Sometimes it can make a difference.

Building Your Own Telescope?

John Dobson will be coming to teach telescope making and cosmology classes at Sean's Astronomy Shop from March 16 to April 16th. Please notify us if you are interested at www.seansastronomyshop.com or (360) 666-6882.

Desert Sunset Star Party May 1-4, 2003

The Desert Sunset Star Party (DSSP) is one of the newest amateur astronomer star parties in the US, scheduled for May 1-4, 2003 at the Kartchner Caverns State Park in Benson, AZ. Additional information and registration forms are now on our website. http://chartmarker.tripod.com/sunset.htm. We invite you all to come and enjoy the dark southern Arizona skies and the many attractions in this area.

In the late afternoons as we wait for dinner, we will have a few of the seasoned amateurs and professionals demonstrating specialized techniques. We will have a swap meet on Saturday afternoon followed by a contest for your homemade innovative astronomy gadget.

After dinner, attendees can listen to speakers at the amphitheater while we wait for the sun to set. We still have openings for speakers - please contact us if you are interested. We should have a good selection of door prizes donated from some local businesses and other vendors we have contacted in our star party travels.

During the days, we are encouraging attendees to visit places like Kitt Peak, the UA Mirror Lab and Flandrau Planetarium, the Pima Air and Space Museum and Titan Missile Silo, and of course the many non-astronomy related sites such as the Arizona Sonora Desert Museum, Old Tombstone and much more. Check our Day Trip links for details. (If you plan to tour Kartchner Caverns (advanced registration is required for this very popular tour) you can access the Cavern tours through our Day Trip links.)

Chart Markers and More Pat and Arleen Heimann
http://chartmarker.tripod.com

Full moon shot taken shortly after midnight on Oct 21, 2002; afocal using a Nikon CoolPix 995 through a Tak Sky90 with a 26mm Plossl. Photo by Todd Leen.

RCA Photo Gallery

Orion (and Sirius) rising. It's a 1h 22min exposure (28mm lens) taken at the Klondike site on 11/02/02. Photo by Todd Leen.

Illustration from Bernard le Bouyer Fontenelle. (1657--1757) Entretiens sur la pluralité des mondes, 1686.
Translation: Conversations on the Plurality of Worlds. Berkeley: University of California Press, 1991

Special Interest Groups

Astrophysics / Cosmology
Date/Time: January 23, 2003, 7:00 p.m.
Speaker/Topic: Dale Fenske, Orienteering & the Moon
Linus Pauling Complex, 3945 S.E. Hawthorne St., Portland

Telescope Making Workshop
Date/Time: January 18, 2003, 10 AM—3 PM
PLACE: Technical Marine Services Inc, 6040 N. Cutter Circle, Swan Island

Unitron Refractor Telescopes

John W. Siple

Advertisements for Unitron telescopes appeared for many years in the pages of *Sky & Telescope*, and the back cover was often adorned with full-blown pictures of their wonderfully made instruments. Considered by most amateur astronomers as the ultimate in optical and mechanical precision for that time period, they have become sought after collector's items in today's world of astronomy.

The first refractors appeared in 1951, and according to Roger Re (owner of R.V.R. Optical) they were produced under the guidance of Mr. Hatsukawa, Sr. Originally called United Trading Co., the name was changed to United Scientific Co. (Unitron was the instrument division of United) and eventually to just plain Unitron Instrument Co. When he died his son took over the business, and it was located in Nozama, Setagayaku, Tokyo, Japan. J.W. Seyfried (president of University Optics, Inc.) stated that Unitron was a fairly decently sized company in Japan for that time period, and they had a large bay for assembling their telescopes (Unitron is also well-known for its quality microscopes and binoculars). Larry Fine managed Unitron in the 1960's and 1970's. The U.S.A. outlet has been located at various places in the northeast, from Boston, MA to Plainview, NY and from there to Woodbury, NY. They currently reside in Bohemia, NY.

Unitron has sold a variety of alt-azimuth and equatorial models, ranging in size from a diminutive 1.6" to a monstrous 6", and they are all identified with a model number. The line was quite extensive to accommodate the budgets of each class of observer—l.6" alt-az #127, 2" alt-az #105, 2.4" alt-az #114, 2.4" eq. #128, 3" alt-az #140, 3" eq. #142, 4" alt-az #150, 4" eq. #152, and 6" eq. #600-620. Quality came with a price tag, where a 2.4" #114 sold for $125 in the 1950's (the same as $800 today) and a model 152 garnered $785 back then ($4900 in 2002 dollars). A "C" after the model number indicates that the scope has a motor drive. The addition of photo accessories converted a basic equatorial into their "Photoequatorial Line." The premium 4" (4" Unitron's were first produced in 1953) was model #166V, which features a large guidescope and weight-driven clock drive mechanism. A 5" f/16 refractor (#510) was introduced in the early 1960's. Permanent piers were available at additional cost for 4-5" scopes, well-suited for placement in observatories. Unitron's *ASTRONOMICAL TELESCOPES including the new OBSERVER'S GUIDE* published in the 1950s is a comprehensive listing of the company's astronomical products, and it contains many observing hints and tips.

Unitron's most popular line was its 2.4-4" aperture class. These featured silky- smooth slow motion controls, tall oak tripods with metal leg tips, oak/pine cases for transport to the field and for storage when not in use, a beautiful black lacquer finish on the mounting heads and baked-on white enamel for the duraluminum tube assemblies, and a plethora of accessories to choose from.

Telescope components were subcontracted or "jobbed-out", a very common occurrence for that time period. Telescopes and components were assembled in Japan. Gary Hand of Hands-On-Optics indicates that the major supplier for Unitron has been Nehon Seiko of Tokyo. Thomas R. Cave, prior owner of Cave Optical Co., mentioned that Unitron used a classic Zeiss E-type glass mix and spacing for its objective lenses made in the 1950's. This is probably why an earlier version Unitron refractor will easily outperform optically other instruments in its aperture class. Since Unitron used Zeiss formulae in designing its objectives, it is possible in some cases to eliminate secondary color

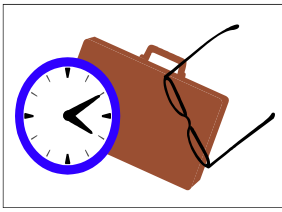
Unitron (Continued on page 8)

Library News

The Rose City Astronomers maintains a comprehensive club library of astronomy related articles, books, CD-ROMs and videos. These items can be borrowed by members through checkout at the general meetings for a period of one month with renewals available by phone or e-mail to the club library director, Jan Keiski (jikeiski@juno.com) - (503) 293-3281.

With the library materials growing in size, the staff also has been increasing to keep up. I would like to thank all of them for their time and enthusiasm. The library staff includes: Rea Young - checking in of returned materials & backup for check outs; Richard Labar - setting up of library materials; Larry Froberg - data input & inventory of materials; Tammy Ross - assisting at library table and putting away library materials after the meeting; and Meg Grace - assisting as a backup to help at the library table during meetings.

Color coding of library materials by category has been completed. Online access to a list of library materials will be implemented hopefully by January 2003. Visit the RCA library web page at: http://www.rca-omsi.org/library.htm



BOARD MEETING MINUTES

DECEMBER 2, 2002

Ron Forrester

Present: Ron Forrester, Doug Huston, Carol Huston, Larry Godsey, Jeff Henning, Dareth Murray, Regis Krug, Debra Hirschmann, Peter Abrahams, Matt Brewster, Dale Fenske, Jan Keiski, Bob McGown, Padraic Ansbro, Norm Trost, Scott Turner

Treasurer – Ginny: $12,609 balance.

Programming - Matt: Going to provide some additional food again this year such as lasagna. Same $300 budget as last year. Door prizes from Sameer's stash. January is the info fair. SIG directors need to get any flyers to Debrah by beginning of January in order to have them for general meeting.

Membership - Doug: 350 current member families. Peter and Doug are working on an issue where some members are getting duplicate Gazettes. Membership database currently gets updated with printer twice a year.

Star Parties - Scott: Nominal

Community Affairs - Norm: Bob made a presentation to Willamette Primary School.

Sales - Sameer: Sold $402 of merchandise in November.

New Members - Carol: Nominal

Light Pollution - Bob: Clackamas County lighting ordinance point person is keeping Bob up to date on the progress. There is a canned letter on the IDA website to send in. Goal is to get the tape ready by February to take down to the IDA group to Tucson.

AL - Dale: Elle wants to know about home observatories, so if people have information on ones they have created, send info to Dale. Needs current Database from Membership to update the AL roster.

SIG's: Nominal

Magazine - Larry: Nominal

Editor - Regis: Only 12 people have requested online only Gazette. Proposals to increase the number of times per year (at $50 per update) we synchronize our membership database with the printer, perhaps quarterly such that it gets updated at key times of the year, like membership renewal times, etc. Mike R. has volunteered to archive old issues of the newsletter.

Library - Jan: Getting a smallish cart for Sameer.

YRCA - Ron: Participation is good.

Webmaster - Dareth: Renewed our domain name with godaddy.com.

OMSI - Peter: Science of Toys Dec. 7th & 8th. Got a bill from OMSI for $1624.75 for the Hancock star party. Camp Hancock receipts balance with OMSI bill. OMSI bill paid with funds received for Camp Hancock Star Party by RCA member participants.

Telescope Library - Jeff: Nominal

Copying - Debrah: Nominal

Phone Line: December is Scott.

Solar Scope: Matt has it, working with Jim and Sean to find out which adapters are needed to get the proper focal length for the filter, and a time to test out the current setup.

Carol had a couple of requests for people wanting help to sell their telescopes, perhaps in the Gazette. Should send ad's to newsletter editor.

Larry Godsey will be acting as assistant treasurer when Ginny can't be here, especially as a proxy to deposit monies from the various income sources in the club. Larry will not write checks, but will try and bring checks to the general meeting from receipts given at the previous board meeting.

Award (Continued from page 3)

the Rose City Astronomers. She has served as President of the club; V.P of Programming; Newsletter Editor and she originated the concept of the Special Interest Group. She is the co-author of the very successful Astronomical League observing program: Observing the Herschel II, has authored an elementary school astronomy program, and has written several OMSI planetarium programs. She has observed all over the world, in both the Northern and Southern Hemispheres.

Chuck Dethloff – Chuck was also one of the founding members of the RCA. He has served as President of the club, and as VP of Star Parties. He is the founder of the Oregon Star Party, an internationally recognized gathering of astronomers. He was also one of the founding members of the telescope makers workshop and is a nationally recognized telescope maker. Chuck has also dedicated many hours of his personal time to helping beginning astronomers learn good observing techniques.

Dale Fenske – Another founding member of RCA and a member of the RCA board since the club's inception. He served as President of the club for several terms and as our club's liaison to the Astronomical League. He has been instrumental in developing and running our club's astronomy day activities and has been active in astronomical outreach activities in the area. He set up and ran the club's phone hotline for a number of years.

These first awardees represent the best in dedication to amateur astronomy and the club. It is intended that this award be difficult to earn, that it represent recognition of major contributions to the club and amateur astronomy. Each year, the board will review the criteria and determine if any awards will be made that year.

In recognizing those who have made outstanding contributions to the club, it's important that we not forget that today we are still blessed with many dedicated, talented volunteers who make this club go. Without their service, the Rose City Astronomers would not be the nationally recognized club it is.

From the Board of the Rose City Astronomers: Congratulations to those first recipients of the Galileo Service Award, and thanks to all those who continue to freely give of their time, talents and efforts to making this club what it is today.

Unitron (Continued from page 6)
and spherical aberration (if present) by simply respacing the lens (Dr. Richard Buchroeder's article entitled "Too Many Rings" in ATM Journal describes this technique for one lens). I have successfully done this on a vintage Unitron 75mm. f/16 achromat (a thin spacer ring of 2.5mm. thickness) to remove all in-focus secondary color and to greatly reduce the spherical aberration.

In the 1960's and later Unitron obtained its objective lenses from Carton, Towa, Nehon Seiko, and others. Joe Castoro of The Binoscope Co. said that in the 1980's their achromats were refigured to extremely high standards by Jaegers, Inc. Therefore after 1960 the variance in lens figuring is quite large, but in general the optical quality is excellent. Some 4" objectives are marked with a 5000 serial number; an especially good glass mix was made by one of its suppliers and this was used on some of its telescopes (I owned serial #5058).

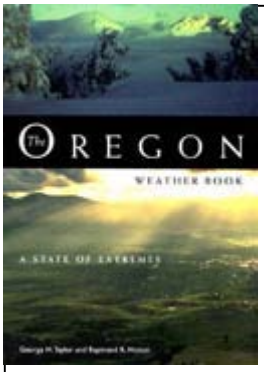
Unitron has offered some unique accessories over the years. The accessories were sold in two versions, called the "A" for 0.965" holders and "B" for 1.25". The Duetron allows two people to observe at the same time, and the Unihex eyepiece selector is a turret-type of device that holds 6 eyepieces. A huge version called the SuperUnihex was sold that holds 6 eyepieces including a screw-in 60mm. Kellner. Hinged wrap-around rings called Uniclamps allow the addition of guidescopes, etc. without having to resort to drilling the tube. Unitron's focusers are legendary and came in standard, deluxe, and super versions. Quality finderscopes of 19, 23.5, 30, 42, and 62mm. diameters with brackets were available to the amateur astronomer. Eyepiece types sold with scopes (0.965" sizes only) are Ramsden, Huygen, Kellner, Symmetrical and Orthoscopic (1.25" available) which are all well-suited to perform great on the long focal length (f/15-16) design of Unitron refractors. A 40mm 1.25" eyepiece of Monocentric configuration and 20mm Erfle were sold. In the late 1980s Unitron introduced its wide-field eyepieces in 10, 13, 16, and 20mm focal lengths, which are virtually identical to University Optics, Inc. Widescans with 82 degree fields. Erecting prisms, Herschel wedges, solar projection screens, and an extensive line of parts (mountings, tube assemblies, etc.) were available for separate purchase. A Unibalance assembly was used for precise balance of heavy accessories.

Astrophotographers were given the chance to select from a variety of astrocameras. Their standard Model #220 holds glass plates, and Model 330 was used for projection in capturing the images of bright objects such as the moon and planets. Model #80 with a Taylor-type astrographic objective and Model #100 were available for the more advanced astrophotographer. Double star enthusiasts in the 1950's could purchase a rare filar micrometer. Moonwatch Program observers were given the option of buying Unitron's Satellite Scope, a super quality 50mm. f/4 refractor with a 33.3mm. Erfle eyepiece that gave an actual 12 degrees of sky coverage at once! It came with heavy-duty base and setting circles for azimuth and altitude readings.

In the 1970's Unitron offered its spotting scope line, a massively-constructed 80mm. f/6.25 OTA with table-top tripod and mount (models #Q, S, QC, and SC—models Q and QC came with a quadruple eyepiece selector). A smaller 60mm. f/7 (models #60, 60-ET, 60I, 60I-ET) version was offered for the nature enthusiast and casual observer. For portability several compact Unitron's could be purchased, a folded-optical path 3" f/16 (#131-C) and 4" f/15 (#132-C). The European brand name for Unitron products is Polarex.

Unitron telescopes have had little change in appearance since they were first offered. In the late 1950's and early 1960's some minor changes took place; the cradle, which was an integral part of the mounting was redesigned to become detachable, and 2.4" and 3" models were supplied with a collimatible lens cell. Neoprene (hard plastic) replaced the older machined aluminum focus knobs and the tips of slow motion controls. Early Unitrons had no provision for an AC electric clock drive, and this was changed by supplying a small encased motor with shelf. Their 4" alt-azimuth model #150 went from a yoke-style mount to one having a much heavier mounting head with counterweight for balance (and detachable cradle).

Over the years there have been several telescopes manufactured by various companies that closely resemble Unitrons. In 1977 Meade introduced its Model 420, a 105mm. refractor very similar to #152. Vernonscope's Brandon line of 1987-90, which used Christen Starfire triplet objectives, was patterned after the makers of Unitron. Owner Don Yeier clarified this point by saying that Brandon refractors also used components supplied by Nehon Seiko. Unitron telescopes are designed to withstand the test of time, and those purchased decades ago still function just as well as when they first came out of the box. Over the years thousands have been sold, and fortunate indeed is the amateur astronomer who owns a Unitron!



THE OREGON WEATHER BOOK

A comprehensive and fact-filled resource for anyone who watches, studies, enjoys, or simply endures Oregon weather, this book offers a history of significant weather events and a guide to the forces that create and govern our weather. The authors consider common perceptions (and misperceptions) about Oregon weather by both residents and outsiders, including the origins of the term, "Webfoot:'

The Oregon Weather Book describes the mystery and awesome power of the remarkable weather extremes that have occurred in the state. Chapters on floods, tornadoes, high and low temperatures, snowstorms, windstorms, rainstorms, ice storms, thunderstorms, and droughts explain the causes of severe short-term weather. Historical photographs and eyewitness accounts capture the drama of these often dangerous events.

The book's foreword by Stuart Tomlinson outlines one of those dangerous events. Anyone who was there will remember the awesome power of nature at the Oregon Star Party of 1993. He is a writer for "The Oregonian" newspaper that was on assignment to cover the star party that year.

Come to the next RCA general meeting and see this and other books in our fantastic collection!

NASA's Space Place

FRISBEES IN SPACE

by Dr. Tony Phillips

When Pete Rossoni was a kid he loved to throw Frisbees. Most kids do-it's pure fun. But in Pete's case it was serious business. He didn't know it, but he was practicing for his future career in space exploration.

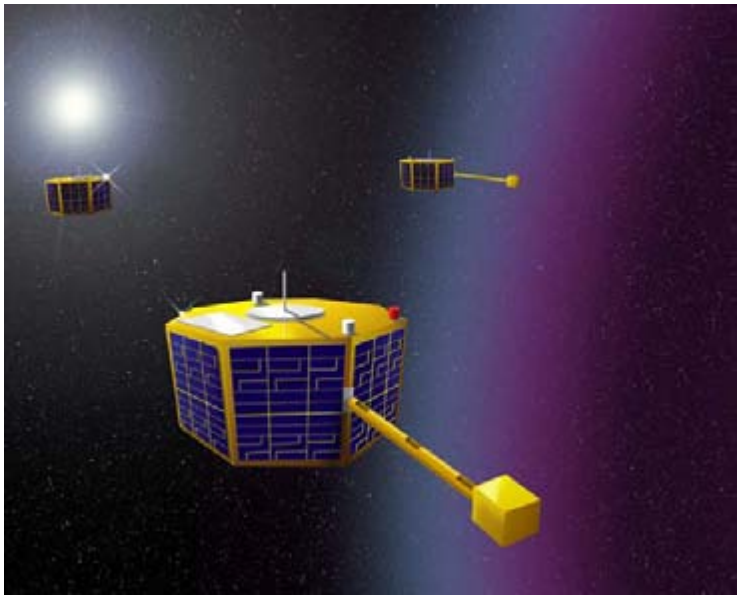
Grown-up Pete Rossoni is now an engineer at NASA's Goddard Space Flight Center. His main project there is figuring out how to hurl spacecraft into orbit Frisbee-style.

The spacecraft are small-about the size of birthday cakes. "This wouldn't work with big satellites or heavy space ships like the shuttle," notes Rossoni. But a cake-sized "nanosatellite" is just right.

Nanosatellites-nanosats for short--are an exciting new idea in space exploration. Ordinary satellites tend to be heavy and expensive to launch. The cost alone is a deterrent to space research. Nanosats, on the other hand, can travel on a budget. For example, a Delta 4 rocket delivering a communications satellite to orbit could also carry a few nanosats piggyback-style with little extra effort or expense.

"Once the nanosats reach space, however, they have to separate from their ride," says Rossoni. And that's where Frisbee tossing comes in.

Rossoni has designed a device that can fling a nanosat off the back of its host rocket. "It's a lot like throwing a Frisbee," he explains. "The basic mechanics are the same. You need to impart the spin and release it cleanly-all in about a tenth of a second." (The spinning motion is important because it allows the science magnetometer to measure the surrounding field and lets sunlight to play across all of the nanosats solar panels.)



The ST5 nanosats are designed to study Earth's magnetosphere-a magnetic bubble that surrounds our planet and protects us from the solar wind. But their primary goal, notes Rossoni, is to test the technology of miniature satellites.

"We haven't done anything like this before," says Rossoni. Soon, however, the concept will be tested. A trio of nanosats is slated for launch in 2004 on the back of a rocket yet to be determined. The name of the mission, which is managed by JPL's New Millennium Program, is Space Technology 5 (ST5).

Can groups of nanosats maintain formation as they fly through space? Will their internal systems-miniaturized versions of full-sized satellite components-satisfy the demands of both the harsh space environment and critical science measurements? Is Frisbee-tossing as much fun in orbit as it is on Earth?
ST5 will provide the answers. Read about ST5 at http://nmp.nasa.gov/st5 .

Budding young astronomers can learn more at http://spaceplace.nasa.gov/st5/st5_tortillas1.htm

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

OMSI STORE SALE

The OMSI store has an excess of astronomy equipment and has slashed prices drastically on some items. The sale items are in a display case to the left as you enter the store. Included are a few solar filters for a C14, C90, and C4.5, a couple of T-adapters, tele-extenders and a star diagonal. Also marked down is a couple of motor drives for a C-80 and aC4.5. There are a few adapters, and even an equatorial mount. If you're still hanging on to a scope that uses .965" eyepieces, they've got a slew of filters and a couple of eyepieces. There's also some assorted finder scope brackets and quite a few assorted T-rings for various cameras. The marked down items are limited and won't last long. For a listing of the items and prices check the RCA web page for a link to a listing of items and prices.

RESULTS OF THE ROSE CITY ASTRONOMERS SILENT AUCTION MONDAY, DECEMBER 16TH, 2002

I would like to really, really thank everyone that bid at the Silent Auction that we held during the December meeting

We cleared .....drum roll here.....

$697

cheers and whistles here

which will be used to upgrade the Telescope Library and we had fun doing it.
Again thanks. Larry and Jeff.

January 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

February 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

January 2003

Jan 6	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
Jan 18	Sat	Telescope Making Workshop, Swan Island		10:00-3:00
Jan 20	Mon.	RCA Kids (ages 4-12)	OMSI lunchroom	7:30 PM
Jan 20	**Mon.**	**General Meeting**	**OMSI**	**7:30 PM**
Jan 23	Thu.	Astrophysics/Cosmology SIG, Linus Pauling House		7:30 PM

February 2003

Feb 3	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
Feb 15	Sat	Telescope Making Workshop, Swan Island		10:00-3:00
Feb 17	Mon.	RCA Kids (ages 4-12)	OMSI lunchroom	7:30 PM
Feb 17	**Mon.**	**General Meeting**	**OMSI**	**7:30 PM**
Feb 20	Thu.	Astrophysics/Cosmology SIG, Linus Pauling House		7:30 PM

The RCA General Meeting falls on the third Monday of each month. We usually meet in the Auditorium at OMSI, next to the Murdock Planetarium. Occasionally the meeting is held in Murdock Planetarium. Check here each month for details, or look us up at the RCA web site (http://www.rca-omsi.org).

RCA CLUB INFORMATION
Message Line: (503) 255-2016
Web Site: http://www.rca-omsi.org

Oregon Museum of Science and Industry
Rose City Astronomers
1945 SE Water Avenue
Portland, Oregon 97214-3354

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The
Rosette Gazette

Volume 15, Issue 2 | Newsletter of the Rose City Astronomers | February, 2003

In This Issue:

Moon photos below courtesy David Haworth

February General Meeting

Michael Faison
Professor, Reed College Physics Dept.
Topic: Radio Astronomy.

Launch Your Star Party Season with RCA's Messier Marathon

by Carol Huston

Traditionally, RCA has opened its star party season each year by holding a star party and Messier Marathon in March on the new moon weekend. This year's kick-off event will be held March 28-30 with the 17th Annual Messier Marathon at the Kah-Nee-Ta Resort in Warm Springs. Even though this event is billed as a Messier Marathon, observers (and their families) come for many reasons: to try their hands at locating as many of the 110 Messier Objects as they can during a one-night shot, to observe their favorite objects under Central Oregon's clear dark skies, to spend a wonderful weekend with other astronomers swapping observing stories and exchanging information, or even just to spend a relaxing weekend with their families – all in comfortable accommodations that offer various other activities.

And – what is a Messier Marathon you ask? Well, Charles Messier was a 18th Century comet-hunting astronomer who organized a catalog of 103 galaxies, clusters, and nebulae. Seven more objects were added by later astronomers bringing the total of the list to 110 of the brightest and best known deep-sky objects in the Northern Hemisphere. The Messier Catalog has become one of the most popular observing lists of its kind. During mid March, given certain conditions, all of the 110 objects can be seen in one night (from dusk until dawn). An organized blitz to find all 110 objects in one night is called a Messier Marathon.

During our past 16 functions, the weather has been very good to us; we have never failed to obtain at least part of a night's clear skies for observing, which is nothing short of amazing during spring in the Pacific Northwest. Over the years, the event has become a two-night function, with a Saturday evening banquet as a prelude to the observing that evening. The event is popular with families since it is one of the few that affords a warm bed and hot shower, not to mention a heated swimming pool, great food, a giant fireplace, a luscious spa, and much more. The Kah-Nee-Ta Resort has a variety of family activities in which all can participate. They roll out the carpet for RCA, offering us rooms at half off their regular prices as well as a social gathering room for daytime get-togethers. There is no formal registration for the event itself, and you make your room reservations directly with Kah-Nee-Ta. There is, however, advanced registration/payment required for the Saturday night banquet. Here are the details for this year's star party:

DATES: March 28 and 29, 2003
LODGING: Rooms will rent for $73 per night, single or double, plus $14 extra per person up to a maximum of four per room. Children under 14 are free when occupying the same room as their

(Continued on page 3) Messier Marathon

Deadline for submission of articles, ads, and photos for the Gazette is the 20th of each month.

New Moon	First Quarter Moon	Full Moon	Last Quarter Moon
February 1, 2:48 AM PST	February 9, 3:11AM PST	February 16, 3:51 PM PST	February 23, 8:46 AM PST

Club Officers			
President	Peter Abrahams	(503) 699-1056	telscope@europa.com
Past President	Candace Pratt	(503) 296-6758	candace@europa.com
VP Members	Doug Huston	(503) 629-8809	geometer31415@aol.com
VP Observing	Scott Turner	(503) 788-6484	kings1@attbi.com
VP Community Affairs	Padraic Ansbro	(503)-349-4864	whiteowl@ansbro.com
VP, Communications	Matt Brewster	(503) 740-2329	brewster@teleport.com
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Alcor, Historian	Dale Fenske	(503) 256-1840	fenskedf@juno.com
Library Director	Jan Keiski	(503) 293-3281	jikeiski@juno.com
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Media Director	Ron Forrester	(503) 504-8071	rjf@skyhackers.org
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OSP Liaison	Dareth Murray	(503) 656-1293	dareth@cablerocket.com
Camp Hancock Liaison	Glenn Graham	(503) 579-1141	the.grahams@verizon.net
Subscription Director	Larry Godsey	(503) 675-5217	larrygodsey@att.net
SIG Director	Matt Brewster	(503) 740-2329	brewster@teleport.com
Youth Programs Director	Jenny Forrester	(503) 504-8071	jenny@theforrest.org

President's Message

By
Peter Abrahams
February 2003

Most of us have visited the Stonehenge 'replica' near Goldendale, a monument to WWI casualties initiated by Mr. Hill. It is a good observing site, although it attracts more people at night than our typical sites. I was there for a meteor shower once when a group clad in black robes gathered at midnight in a circle inside the 'henge'. I thought they were mystics until I found their beer cans the next morning.

There is a book that analyzes the monument in astronomical terms: Ernest W. Piini. America's Stonehenge: a comparison with the ancient Stonehenge on England's Salisbury Plains. Redwood City, Calif.: Sarsen Press, 1980. 30 pages. PSU & Reed College libraries have a copy.

Piini says that Hill wanted to use stone, but couldn't find good enough material, thus we have the cheaper looking concrete. Piini derived fairly extensive astronomical calculations. The latitude of the site is 5 degrees south of the original, so the placement of the stones should have been totally recalculated -- but it wasn't; and Piini measured it to be rotated 3 degrees counterclockwise from a correct orientation. But Piini said that if you set a few new orientation / viewing points, the rising and setting of the moon and sun could be viewed over the correct stones. Summer solstice sunrise can be viewed, & winter solstice sunset is over Mt. Hood.

Also, it is the site of total solar eclipses in 1918, 1979, and 2017. So if you missed '79, as I did (stuck in Portland), you'll get another chance in 14 years.

RCA

Magazine Subscriptions

One of the main services offered to RCA members is subscriptions to *Astronomy* and *Sky & Telescope* magazines at a much reduced rate from newsstand prices. *Astronomy* $29 for one year or $55 for two years. *Sky & Telescope* is $29.95 for one year.

Checks must be made out to Rose City Astronomers to get the reduced rates.

For further information, see Larry Godsey, Subscription Coordinator, at the Membership Table at General Meetings or check the RCA website. Please note: Allow two months for your subscription to be renewed.

Sky & Telescope Store Discount

RCA members who subscribe to *Sky & Telescope* are entitled to a 10% discount at the *Sky & Telescope* online store at: *http://skyandtelescope.com/shopsky* To get your discount, enter Rose City Astronomers when prompted for your club name during checkout at the *Sky & Telescope* online store.

The "Kids" of Rose City Astronomers

RCA Kids

Children ages 4-12 are welcome to join in fun and educational activities while the grownups attend the monthly general RCA meetings. The kids' meeting takes place in the adjoining cafeteria at OMSI from 7:30 p.m. to 9:00 p.m. If you have any questions, please e-mail Jennifer at jenny@theforrest.org.

CLASSIFIED ADS

Run your non-commercial astronomy related classified ad in the monthly Gazette. Rates are reasonable (free!)

FOR SALE: 12" Orion Deep Space Explorer Dobsonian. Great condition, optics, smooth and balanced. Comes with Meade 8X50 spotting scope, Orion EZ finder, Orion Hard Case (aluminum) for lenses, TeleVue Nagler 9 mm, Sirius Plossl 26mm and 7.5 mm. $990 OBO Robert Lussier 503-656-4243. robertlussier@earthlink.net

FOR SALE: Orion Skywatcher 90mm EQ. We bought it in February of 2001 for our 12 year-olds birthday. We've used it about 5 times and the rest of the time it has sat in his room. Includes 25mm and 10mm eyepieces. $175 Contact Elaine Green at 503-526-8554

FOR SALE: Celestron Ultima 8 w/PEC (NOT an Ultima 2000) Considered by many to be the best 8" SCT Celestron ever! Certainly one of the most stable SCTs for the amateur and especially suited for astrophotography. Features: Celestron heavy field tripod with rubber coated legs and deluxe Ultima heavy-duty wedge, 8x50 Polaris finder with right angle and illuminated cross-hair, Hand controller with red reading light, Celestron deluxe foam fitted hard case, Original manual, Celestron Ultima 30mm, 7.5mm eyepieces and Deluxe Tele-Extender, Visual back, Star diagonal, Orion Skyglow and Moon filters, T-ring for Pentax K-mount. Perfect condition! Total invested $2500, asking $1500. Call Victor Lohr 503-658-8541

FOR SALE: Meade 10" LX200 EMC with 9 eyepieces $2500 or best offer. Contact Steve at 503 365-7066 or SuperPapaMatrix@aol.com.

M45 "The Pleiades" taken at the ITS site star party in September by Michel Cole.

Messier Marathon (Continued from page 1)

parents. This represents a savings of 50% over regular room rates. To register for a room, you should call Kah-Nee-Ta directly at 1-800-554-4786 to make your reservation, mentioning that you are with the RCA star party. RCA has reserved a number of rooms at the special rate that will held until February 28, so please make your reservations as soon as possible. There is also lodging available at the lower village, but no tent or RV camping allowed.

EVENT REGISTRATION: No registration to attend the star party; however, you need to reserve your room directly with Kah-Nee-Ta AND register and prepay for the banquet.

BANQUET: The Saturday evening banquet will feature a roast chicken dinner for adults for $22 per person and chicken strips & fries for children for $10 (both include gratuity). You will need to sign up and prepay for attending the banquet – the deadline is March 17. You can do this through Event Host Carol Huston by phone (503-629-8809), by e-mail (StarsCarol@aol.com), by snail mail (19360 SW Hennig Street, Aloha, OR 97006), or at the February and March general meetings.

ACTIVITIES: Information packets will be available at the general meetings, on the RCA web site (www.rca-omsi.org), and at the social room during the event. These include a guide to the event, a Messier Marathon sequence check-off list, information about Messier objects and Messier Marathons, and a map to the observing site. A social room will be set up at the lodge on Saturday from 11 AM until 3 PM. Participants are encouraged to bring pictures, inventions, observation notes, junk to repair, questions, and tall tales to share with others. There are many other activities available through the resort: swimming, horseback riding, hiking, golf, tennis, a health spa, and casino gaming. Check the web site for more resort information at www.kah-nee-taresort.com.

FOR MORE INFORMATION: Contact Carol Huston at 503-629-8809 or StarsCarol@aol.com

Start your 2003 observing season with RCA by attending the 17th Annual Messier Marathon. You don't have to do a marathon to participate. Some participants come just to spend their time observing their favorite objects, work on their observing programs, or mingle with other astronomers. You don't even need a telescope to participate; other members are enthusiastic to share their views. This is a good opportunity for beginners to get acquainted and seasoned observers to get back into the groove. We look forward to seeing you there!

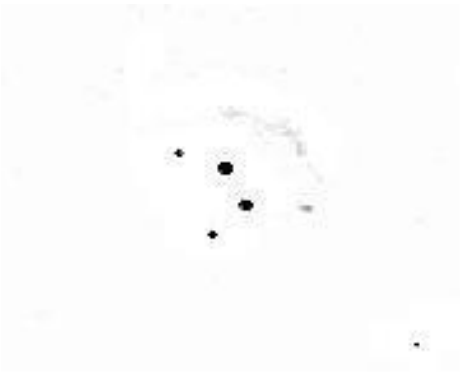
NGC 1977, The "Running Man" Nebula shot by Michael Cole with CCD from his backyard in November.

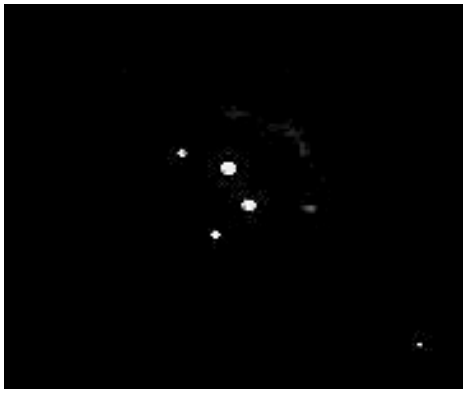
V838 is a peculiar variable star in the constellation Monoceros, and its outburst of January 2002 is perhaps even more interesting now. The star itself is quite faint but the light from its outburst is still bouncing around its local environment toward us – a light echo. The ring like nature of the light echo probably means that material from V838's previous outbursts are being illuminated.

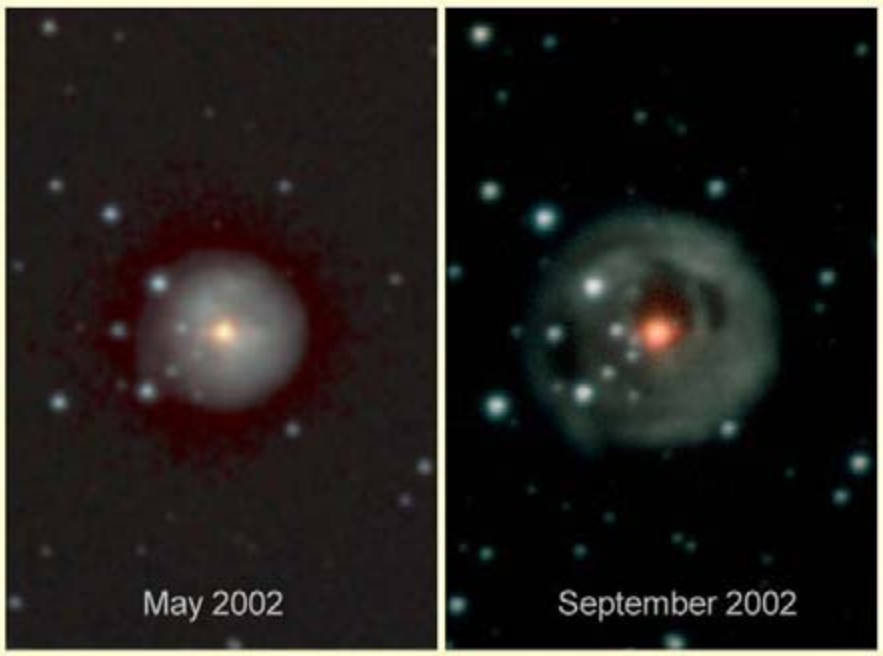
The star's brightness peaked around 6th magnitude. It has since dropped back to somewhere fainter than 14th magnitude, so it seems strange that it could still be lighting up its neighborhood, but that's exactly what's happening. The echo is growing larger as the light continues to spread away from the star, which also means it's getting fainter.

Chuck Dethloff and I attempted to see the light echo on December 8, 2002 and we both came up with a "maybe". Follow up observations on January 6, 2003 was thwarted by poor seeing, but the first observation was intriguing enough to put this object near the top of my observing list on any dark night this winter and early spring.

Here's a sketch of what I saw. The faint arc is more of a barely detected perception rather than a definite sighting. This brings up one of the difficulties with sketching something very faint – if I sketched the light echo as faint as it actually appeared, it would not be directly visible on my sketch. That means the sketch shows the light echo much more plainly than I perceived it. If it doesn't show up in your copy of the Rosette then you have the much the same view of it that Chuck and I did!
This view was through a 20" scope at 413x, no filters. Limiting visual magnitude was 6.4, transparency was rated 9 with seeing ranging from 4 to 2. Temperature was 22F.







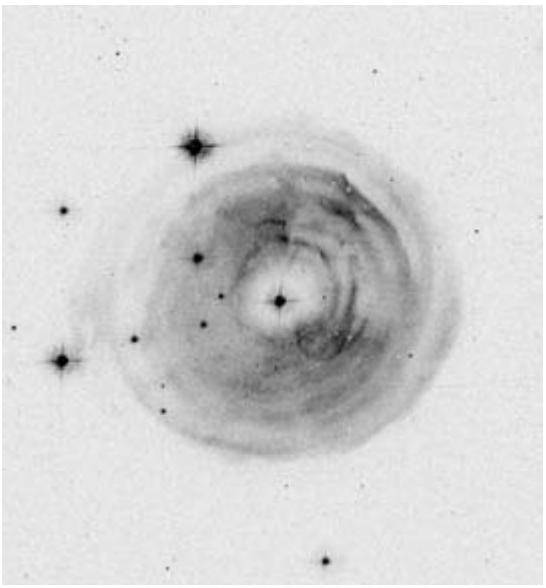
These two color images show the light echo more fully and how it evolved in only four months:

(Credit: Lisa Crause Univ. Cape Town), Warwick Lawson (Australian Defense Force Academy)

(Continued on page 5) The Observers Corner

Observers Corner(Continued from page 4)

And this final image taken by the Hubble Space Telescope shows the multiple rings within the light echo:



(Credit: NASA/HST. Image processing by Peter Garnavich, Harvard)

So where is V838? The coordinates are:
Right Ascension 7 hours, 4 minutes and 5 seconds
Declination –03 degrees, 50.8 minutes.

This would be on Sky Atlas 2000 chart 12 and Uranometria page 228, but V838 is not marked on either atlas. However, these coordinates are about a half-degree north east of 19 Monoceros which is marked in both charts.

The V838 light echo won't last forever so I hope to have a more definite sighting in the next few months. It may be too large and faint to see visually next year so this may be the only chance left for visual observers, but I'll guess that those with appropriate imaging equipment should be able to document the changes to the light echo for several more years.

Saturn observation update from Chuck Dethloff

Howard Banich wrote in the January Gazette about our December observation of Saturn. Evidence found after that article was printed has caused us to change our minds regarding the visibility of Cassini's Division. See http://home.teleport.com/~telmor/_wsn/page4.html for details.

Welcome New Members

Bobby & Joellen Babra, Thomas Batt
Michelle & Russ Berg, Tim Crawford, Brian Declercque,
Cheryl DesRuisseaux, Paul Hanau, Marvin Harner,
Michael Hellums, Dave & Kathy Jackson
Sean & Elizabeth Kamath, Blair Kent, Karen Kittelson,
John Liebenrood, Morgan Pope, Greg Seitz
Jon Tracy, Robert Zimmerman

RCA Photo Gallery

M20 Photo by Terry Johnson
Astro-Physics 130mm F6 scope on an
Astro-Physics 600GTO mount with an SBIG ST10XE CCD camera on the back. Taken from my backyard in Lake Oswego in June or July of 2002.

M27 Photo by Terry Johnson
Astro-Physics 130mm F6 scope on an
Astro-Physics 600GTO mount with an SBIG ST10XE CCD camera on the back. Taken from my backyard in Lake Oswego in June or July of 2002.

Special Interest Groups

Astrophysics / Cosmology
Date/Time: February 20, 2003, 7:00 p.m.
Speaker/Topic: Charles Radley, Space & Communications
Linus Pauling Complex, 3945 S.E. Hawthorne St., Portland

Telescope Making Workshop
Date/Time: February 15, 2003, 10 AM—3 PM
PLACE: Technical Marine Services Inc, 6040 N. Cutter Circle, Swan Island

From Inner Space to Outer Space

By Bob McGown

Under dark central Oregon skies, researchers affiliated with NASA's Institute for Advanced Concepts (NIAC) were given a deep sky tour. Although they are well versed in exobiology and space science, some had never looked at galaxies, nebulas or globular clusters. They were astounded at the clarity and detail of these objects as seen through a ten-inch Dobsonian telescope. The added attraction of sporadic meteors kept everyone on their toes. The grand finale of the evening was catching the zodiacal light.

On all three nights of the Skylight Cave project, we were able to observe the night sky with scientists and researchers from the Oregon L-5 chapter of the National Space Society, Oregon Chapter Mars Society and others. The primary research team consisted of Gus Frederick, Dareth Murray, Dick Stephens, Bryce Walden, Cheryl York and myself. Steve Holman, president of the Oregon Science Teacher's Association, was so enthused by the success of the CEMSS II biosphere that he plans to help his advanced biology students build several biospheres in the coming year.

Of Mice and Mars

Gus worked together with Oregon L-5 members to create the skylight cave Mars analogue study with the CEMSS II module as a central part of the NIAC Case for Mars Study. The project's principle investigator is Dr. Penny Boston. Dr. Boston is a microbiologist who works as an independent scientist at Complex Systems Research, Inc., her own non-profit corporation. Dr. Boston is one of the founders of the Case for Mars and has authored numerous popular and technical publications on exobiology, extreme environments, human life support in space and on planetary surfaces.

The Skylight Cave project was a Mars analogue with the CEMSS II biosphere suspended on a scaffold platform 16 feet high with guy wire to climbing anchors on the cave walls. The NIAC researchers lowered the unit from the central hornito of the lava tube cave, using climbing ropes and a pulley system. Delicate instruments and the data acquisition equipment were also lowered in a haul bag to the platform, to be used later at the Mars Desert Research Station. Once the entire system was assembled with a power and data umbilical cord, the CEMMS II was ready to support the two 'mousetronauts' Chevy and Pontiac, snuggled in their mouse habitat at the top of the unit. The ecological loop is created by the mouse's exhalation of CO2 and the production of Oxygen by the duckweed (Lemna) and water fern (Azolla). Together the plants and mice lived in the cave for 48 hours, monitored by an array of instruments.

After the CEMSS II data acquisition software was shut down, space optics experiments using a heliostat to send a focused beam of light through hornito one were performed to demonstrate illumination/light pipe techniques. The heliostat was mounted on a tripod on a right ascension axis for ease in tracking the sun. This project was done in anticipation of future research using Skylight Cave for a Mars analogue simulation.

In conjunction with the first phase of the project, Pacific Survey Supply used the unique Cyrex 3-D mapping software to scan a data point cloud of Skylight Cave. This was done to demonstrate the ability of Cyrex to deliver the most detailed picture of a lava tube cave ever created to aid in space science applications. This is the same technology used in some of the graphics for the movies Star Ship Troopers and Mission to Mars.

The five day project was a success on all fronts. The Cyrex software produced a remarkably detailed 3-D map of the interior of the cave and exterior hornitos. The CEMSS II biosphere worked perfectly, with the two mice emerging safe and sound after 48 hours in a closed ecological system. The local Bend newspaper had three front page features on the project and the Associated Press picked up the story which was later broadcast on NPR. The results of these experiments will be useful for ongoing research in extreme environments which is important to the NASA plan of future colonization of the Moon and Mars.

Library News

The Rose City Astronomers maintains a comprehensive club library of astronomy related articles, books, CD-ROMs and videos. These items can be borrowed by members through checkout at the general meetings for a period of one month with renewals available by phone or e-mail to the club library director, Jan Keiski (jikeiski@juno.com) - (503) 293-3281.

With the library materials growing in size, the staff also has been increasing to keep up. I would like to thank all of them for their time and enthusiasm. The library staff includes: Rea Young - checking in of returned materials & backup for check outs; Richard Labar - setting up of library materials; Larry Froberg - data input & inventory of materials; Tammy Ross - assisting at library table and putting away library materials after the meeting; and Meg Grace - assisting as a backup to help at the library table during meetings.

Color coding of library materials by category has been completed. Online access to a list of library materials will be implemented hopefully by January 2003. Visit the RCA library web page at: http://www.rca-omsi.org/library.htm

BOARD MEETING MINUTES

(EDITED)
JANUAR 6 2003
Ron Forrester

Present: Ron Forrester, Doug Huston, Carol Huston, Larry Godsey, Jeff Henning, Dareth Murray, Regis Krug, Debra Hirschmann, Matt Brewster, Dale Fenske, Jan Keiski, Sameer Ruiwale, Padraic Ansbro, Scott Turner

Treasurer – Ginny: $14,283 total cash assets. Ginny will prepare some budgetary reports and we'll discuss budget issues next meeting.

Programming - Matt: Info fair this month. Vince Sticherz (Sloan digital sky survey) or Don Pettit (Astronaut)

Membership - Doug: 327 Member families

Star Parties - Scott: Nominal

Community Affairs - Padraic: Padraic needs to be added to the board email list (may need the email address updated).

Sales - Sameer: $587 taken in December.

New Members - Carol: Talked to several new letters at the holiday party, going to get together with them this week.

Light Pollution - Bob:

AL - Dale: AL has the new user database.

SIG's - Matt: Nominal

Magazine - Larry: Nominal

Editor - Regis: Nominal

Library - Jan: Nominal

YRCA - Ron: Nominal

Webmaster - Dareth: Nominal

OMSI - Peter: Nominal

Telescope Library - Jeff: Solar scope was reviewed at Sean's Astronomy and a 2x Powermate was placed in it, which mates well with the scope. We may need to get an appropriate diagonal (1.25") for this setup.

Copying - Debrah: Last chance for getting copies for the info fair.

Phone Line: Dale to do January 6th to February 3rd

2003 Star Party Schedule discussion: Some mid week OMSI suggested parties are being recommended against, based on full moon, lateness in year, etc. Scott will send out the schedule to the board list for review/revision. Current version is accepted by board.

Messier Marathon – last year Carol had issues with Kah-nee-tah lodge, not sure if they'll take us this year, because people cancelled due to weather issues last year. Carol had to work very hard to make sure we weren't charged for the cancellations. If it's not already clear, it should be made clear that when people sign up for a room, if they cancel they are personally responsible for cancellation fee's. Working with a whole new organizing group, have not connected yet.

SIGs:

As the new SIG director, Matt will write up his view of what SIG's are, and what the RCA's involvement in their formation, maintenance, and dissolution should be. Will bring it to the next meeting for discussion.

Larry will do the calendar for the website, and it will be more interactive, and less nominal.

RCA MEMBER AWARDS

In recognition of RCA members who complete one of the many observing programs offered by the Astronomical League, we feature those members who have been awarded a certificate of achievement. Dale Fenske, the RCA Alcor to the Astronomical League, has more information if you are interested in an observing program.

Meteor Club
Larry Godsey #96
Messier Certificates (more than 70)
Jeff Henning #2002
Messier Certificates (all 110)
Frank Siemsen #2014
Rufus Day #1958
Binocular Messier Awards (more than 50)
David Hayworth #528

2003 Rose City Astronomers Star party Schedule

Month	Day	Day of Week	Event	Location
Mar	22	Sat	Vernal Equinox	OMSI
Mar	28-30	Fri-Sun	Messier Marathon	Kah-Nee-Ta *
Apr	12	Sat	Planet Parade	OMSI
May	3	Sat	Dark Sky Star Party	Klondike *
May	10	Sat	Astronomy Day	OMSI
May	30-31	Fri-Sat	Dark Sky Star Party	Camp Hancock *
June	7	Sat	Summer Solstice	OMSI
June	28	Sat	Local Observing	Larch Mountain
July	12	Sat	Lunar Viewing	OMSI
July	24-27	Fri-Sun	Table Mountain Star Party *	Washington
July	26	Sat	Local Observing	White River
July-Aug	31-3	Thu-Sun	Mt Bachelor Star Party *	Bend, OR
Aug	2	Sat	Local Observing	Klondike
Aug	12	Tuesday	Perseid Meteors	Rooster Rock
Aug	28-31	Thur-Sun	2003 Oregon Star Party *	Indian Trail Springs *
Aug	30	Sat	Local Observing	Larch Mountain
Sept	20	Sat	Autumnal Equinox	OMSI
Sept	26-29	Fri-Sun	Dark Sky Star Party	Indian Trail Springs *
Oct	18	Sat	Local Observing	Larch Mountain
Oct	25	Sat	Dark Sky Star Party	Klondike
Nov	8	Sat	Lunar Observing	OMSI

* Indicates camping or camping nearby.

- RCA members do also occasionally get together for other impromptu star parties. RCA's E-mail list provides you with the opportunity to hear about these spontaneous opportunities as they occur. If you are an RCA member and would like to be added to this list, please send E-mail to Dareth at dareth@teleport.com requesting that you be added to the list.
- For more information about all RCA activities, please check out our club's web site at: http://www.rca-omsi.org/ and call our club's phone information line at (503) 255-2016 (option 1) for star party information/changes/cancellations.
- Much discussion has been held regarding the **SAFETY** of RCA members while observing at public or private locations. The RCA does **NOT** assume any liability for the actions of others and can **NOT** guarantee your safety at any site. **It is always a good idea to observe in small groups to minimize your risks**.

Directions for 2003 Rose City Astronomers Star Parties

Included below are directions and information for the events listed on the 2002 Star Party schedule. More detailed information about each star party will be included in the appropriate issues of the Rosette Gazette. If you are new to star parties, please be sure to pick up your copy of RCA's "Star Party Tips" at any of the RCA General meetings. In it, you will find valuable information that will help your first experiences be pleasurable ones!

- **LARCH MOUNTAIN:** From Portland take I-84 towards Hood River and take exit #22 for Corbett. Zero your trip meter at the stop sign. At the stop sign you turn right and head up the hill towards Corbett. At 1.3 miles the road Y's, stay left at this "Y" and then take a left onto the Columbia Gorge Scenic Hwy. Zero your trip meter and proceed for 1.9 miles, take a right onto Larch Mountain Road. It is paved and marked with a big sign. Follow the road to the top of Larch Mountain (14 miles). At the top you turn right (just before the parking lot) into a large unpaved open area. You are at 4000 feet elevation.
- **WHITE RIVER CANYON:** From Portland, take Hwy 26 east towards Mt. Hood. Shortly past Government Camp, you will see

(Continued on page 9) Schedule

Schedule (Continued from page 8)

a sign for Hwy 35 (Hood River turn off). Take this exit and go approximately 4.2 miles and look for a green sign marked "White River Canyon BSA Lodge Parking". Go past the entrance roughly 50 yards and turn left into a large Forest Service parking area.

- **CAMP HANCOCK:** OMSI's Camp Hancock Field Station is located near Clarno. You have 2 routes to choose from.
  - Take I-84 east from Portland to Biggs Junction (exit 104), exit and head south on Hwy 97 to Shaniko.
  - Take Hwy 26 east over Mount Hood. Turn left onto Hwy 216, which will take you to Hwy 197 just east of Maupin. Turn right on Hwy 197 and take it south to it's junction with Hwy 97. Turn left onto Hwy 97 and take it to Shaniko. At Shaniko, take a left onto Hwy 218 (Shaniko-Fossil Hwy) and continue through Antelope and east towards Clarno near the John Day River. Look for the entrance to Camp Hancock about two miles east of the John Day River.
- **ROOSTER ROCK STATE PARK:** Head east on I-84 from Portland. Take exit #25 and loop over the freeway to the State park. Day Use Permit is $3.00 nonmember / $1.50 OMSI member per vehicle at Rooster Rock State Park
- **KLONDIKE:** Take I-84 east from Portland to Biggs Junction (exit 104) and take Hwy 97 south for about 12 miles to Wasco. From Wasco, head east on Klondike road for about 3.5 miles and turn left onto North Klondike Road. Go a little over a mile and turn right onto Dehler Road. Go east 1 mile and turn off into a shallow bowl area. It is marked as a gravel pit on BLM's map.
- **Kah-Nee-Ta:** Travel east on Hwy 26 past Mt. Hood Government Camp, turning south towards Bend at the junction on Mt. Hood. Turn Left towards Simnasho (approximately 29 miles east of Government Camp - Big Kah-Nee-Ta sign on Hwy 26). Follow the road to Kah-Nee-Ta resort (also marked by large sign at resort driveway entrance). On the way to the resort, you'll pass the observing site before dropping down into the river valley. It is in the open field up to your left from the highway close to the Mile 14 milepost marker.
- **MT. BACHELOR STAR PARTY:** Directions to The Mt. Bachelor Star Party is located at: http://www.mtbachelor.com/trip_planner. You can find out more about this star party at the Mt. Bachelor Star Party web site: http://www.mbsp.org. Registration is required and details are on the web site.
- **TABLE MOUNTAIN:** The Table Mountain Star Party and Convention is hosted by the Northwest Region of the Astronomical League. Last year over 1200 people attended this star party, making it one of the largest in the US! The 6000-foot site at Lion Rock is located near Ellensburg, WA. Directions are included with their entry form, which is usually mailed out by June 1st. If you are not mailed an entry form and would like more information about this event, please check out their web page at: http://www.tmspa.com/
- **INDIAN TRAIL SPRINGS:** Travel east out of Prineville on Hwy 26 approximately 14 miles past the Forest Service Headquarters located at the east end of town, turn right onto the Ochoco Ranger Station Road. Zero your trip meter and travel 8.4 miles, until you come to a Y in the road just past the Big Summit Ranger Station. At this Y, stay to the right turning onto FS road # 42. Follow this for 19 miles as it winds up into and through Big Summit Prairie. Then turn right onto FS 4240 and proceed for 2.7 miles, turn right onto FS-800. Go 1.5 miles west on 800 and you will arrive at Indian Trail Spring. The site is located on National Forest Service lands and is at 5000 feet of elevation. This site is also the location of the Oregon Star Party. For more information, please check out the following web site: http://www.oregonstarparty.org/

FROM THE EDITOR

Last month I announced that the Gazette will have five issues dedicated to specific areas of astronomy. The March issue will be dedicated to articles and photos related to deep sky observing. Share your best Deep Sky photos and stories with your fellow club members. Please get your articles and photos to me by February 20th. If you have other articles and photos, submit them anyway. I will either get them in the March issue if space allows, or a future issue.

If you opted to get your newsletter electronically, you will not receive a paper copy next month (March). You can view the newsletter online at http://www.rca-omsi.org/gazette.htm. It is available as separate HTML files for each article or you can download a single PDF file.

Regis

CLEANING YOUR MIRROR

Do not be intimidated by cleaning a mirror, large or small. Lots of good ways to do it as others have posted. This way is pretty straight forward.

Rinse the mirror well with distilled water first. Next, cover the mirror surface with soapy, distilled water bath. Kleenex brand (white unscented) tissues, bunched four our five together held at the four corners makes a nice soft wad. Dampen the wad and dab across the mirror surface following first and x, than a y direction with enough overlap to cover previous path slightly. Do not drag or swirl, rather maintain a horizontal motion across mirror keeping it to a minimum. Change Kleenex wads several times. Rinse mirror again with distilled water and inspect. Usually one time does a good job, if more stubborn patches remain repeat above process. Dab dry with more Kleenex's or paper towels (if you want to avoid the lint that Kleenex's tend to leave behind).

February 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	**3**	4	5	6	7	8
9	10	11	12	13	14	**15**
16	**17**	18	19	**20**	21	22
23	24	25	26	27	28	

February 2003

Feb 3	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
Feb 15	Sat	Telescope Making Workshop, Swan Island		10:00-3:00
Feb 17	Mon.	RCA Kids (ages 4-12)	OMSI lunchroom	7:30 PM
Feb 17	**Mon.**	**General Meeting**	**OMSI**	**7:30 PM**
Feb 20	Thu.	Astrophysics/Cosmology SIG, Linus Pauling House		7:30 PM

March 2003

Mar 3	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
Mar 15	Sat	Telescope Making Workshop, Swan Island		10:00-3:00
Mar 17	Mon.	RCA Kids (ages 4-12)	OMSI lunchroom	7:30 PM
Mar 17	**Mon.**	**General Meeting**	**OMSI**	**7:30 PM**
Mar 20	Thu.	Astrophysics/Cosmology SIG, Linus Pauling House		7:30 PM

The RCA General Meeting falls on the third Monday of each month. We usually meet in the Auditorium at OMSI, next to the Murdock Planetarium. Occasionally the meeting is held in Murdock Planetarium. Check here each month for details, or look us up at the RCA web site (http://www.rca-omsi.org).

RCA CLUB INFORMATION
Message Line: (503) 255-2016
Web Site: http://www.rca-omsi.org

Oregon Museum of Science and Industry
Rose City Astronomers
1945 SE Water Avenue
Portland, Oregon 97214-3354

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The
Rosette Gazette

Volume 15, Issue 3 | Newsletter of the Rose City Astronomers | March, 2003

In This Issue:

Moon photos below courtesy David Haworth

The Messier Marathon Location Has Changed!

Messier Marathon 2003
Is now at Camp Hancock
March 28-30, 2003

As some of you may already know, we have changed the location of the 2003 Messier Marathon from Kah-Nee-Ta (KNT) to Camp Hancock (Near John Day, Oregon). We are very sorry for any inconvenience that this change causes you. Negotiations between the RCA and KNT were unsuccessful this year. The bottom line is that KNT insisted that we sign a multi-year deal with a commitment with a minimum amount of rooms guaranteed. In good faith, we couldn't commit the club to the possibility of excessive expenses in the event (however unlikely) of a large number of cancellations.

So this year, the Messier Marathon will be held at Camp Hancock. This was not an easy decision, nor did we make it lightly. Please feel free to contact any board member if you need further information.

Please note that Camp Hancock is NOT a Kah-Nee-Ta type of lodging. Camp Hancock is a family camp setting. There are shared meals and the attendees help setup and breakdown meals. However, the cooking is excellent and performed by the camp cook.

Lodging is shared cabin-style. We are unable to reserve space in cabins (unless there is a medical necessity), and it is first-come-first-serve lodging. While there is plenty of space for everyone, you will be sharing a cabin with 4-12 other people (depending on cabin size). Cabins are lined on both sides with bunk beds and you need to bring your own bedding (pillow, sleeping bag and second warm blanket for this time of year!). We will hold one of the large A-frame cabins as a woman's only cabin. All other cabins will remain on a first come, first serve basis.

Bathroom facilities and showers are in a central location. So don't expect a hot-tub! There is hot water, showers, flush toilets, and sinks in the men's and woman's bathroom (yes there are separate facilities for the men and women).

Enough of the disclaimer: Camp Hancock has VERY dark skies. That's why we are there.

Camp Hancock is an OMSI-sponsored field station for the promotion of science education. The Camp is located the John Day river in NE Oregon (approximately 3.5 hours from Portland). Directions can be found on RCA's Web site (http://www.rca-omsi.org/starpartysites.htm#hancock). In addition, you can find out a little bit more about Camp Hancock at: http://www.rca-omsi.org/hancock.htm

More Details and Registration Form on Page 3

Deadline for submission of articles, ads, and photos for the Gazette is the 20th of each month.

New Moon	**First Quarter Moon**	**Full Moon**	**Last Quarter Moon**
March 2, 6:35 PM PST	March 10, 11:15 PM PST	March 18, 2:34 AM PST	March 24, 5:51 PM PST

Club Officers			
President	Peter Abrahams	(503) 699-1056	telscope@europa.com
Past President	Candace Pratt	(503) 296-6758	candace@europa.com
VP Members	Doug Huston	(503) 629-8809	geometer31415@aol.com
VP Observing	Scott Turner	(503) 788-6484	kings1@attbi.com
VP Community Affairs	Padraic Ansbro	(503)-349-4864	whiteowl@ansbro.com
VP, Communications	Matt Brewster	(503) 740-2329	brewster@teleport.com
Treasurer	Ginny Pitts	(360) 737-0569	vepitts@attbi.com
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New Member Advisor	Carol Huston	(503) 629-8809	StarsCarol@aol.com
Web Master	Dareth Murray	(503) 656-1293	dareth@cablerocket.com
Alcor, Historian	Dale Fenske	(503) 256-1840	fenskedf@juno.com
Library Director	Jan Keiski	(503) 293-3281	jikeiski@juno.com
Telescope Director	Jeff Henning	503-656-3041	j42h@aol.com
Media Director	Ron Forrester	(503) 504-8071	rjf@skyhackers.org
IDA Liaison	Bob McGown	(503) 244-0078	r_mcgown@msn.com
OSP Liaison	Dareth Murray	(503) 656-1293	dareth@cablerocket.com
Camp Hancock Liaison	Glenn Graham	(503) 579-1141	the.grahams@verizon.net
Subscription Director	Larry Godsey	(503) 675-5217	larrygodsey@att.net
SIG Director	Matt Brewster	(503) 740-2329	brewster@teleport.com
Youth Programs Director	Jenny Forrester	(503) 504-8071	jenny@theforrest.org

President's Message

By
Peter Abrahams
March 2003

This last month has been a whirlwind for some RCA board members. The simple announcement that Kah Nee Tah was cancelled was preceded by hours of discussion and email among board members; and countless hours of work by event coordinator Carol Huston. The resort offered us a deal that was a very good one for a hospitality business, but not workable for a volunteer, dues-run group like RCA. We certainly hope to replace it with a similar event that provides lodging & family facilities; Camp Hancock will be a good site for this year, and if it works, perhaps permanently. One of the eventualities that an organization president dreads the most is the unannounced departure of a key volunteer. A group like the RCA cannot function at all without a treasurer; legally we can't function without a president (though the truth of the matter is otherwise); and the newsletter editor is right up there in terms of necessities. (Of course all the board members have made themselves essential.) Our new editor volunteered & truly 'saved the day' for the board. I hope the membership supports him with articles, photos, and whatever it takes to maintain the high standards of the Gazette.

March General Meeting

Greg Cermak, a NASA/JPL Solar System Ambassador will present a talk on The Search for Life in the Solar System on March 17, 2003 7:30p at the Rose City Astronomers monthly meeting. Topics will include recent discoveries on Mars, Mars Rovers 2003 mission, Cassini mission to Saturn and Titan, and the NEPTUNE project to explore the Juan de Fuca tectonic plate

RCA

Magazine Subscriptions

One of the main services offered to RCA members is subscriptions to *Astronomy* and *Sky & Telescope* magazines at a much reduced rate from newsstand prices. *Astronomy* $29 for one year or $55 for two years. *Sky & Telescope* is $29.95 for one year.

Checks must be made out to Rose City Astronomers to get the reduced rates.

For further information, see Larry Godsey, Subscription Coordinator, at the Membership Table at General Meetings or check the RCA website. Please note: Allow two months for your subscription to be renewed.

Sky & Telescope Store Discount

RCA members who subscribe to *Sky & Telescope* are entitled to a 10% discount at the *Sky & Telescope* online store at: *http://skyandtelescope.com/shopsky* To get your discount, enter Rose City Astronomers when prompted for your club name during checkout at the *Sky & Telescope* online store.

The "Kids" of Rose City Astronomers

RCA Kids

Children ages 4-12 are welcome to join in fun and educational activities while the grownups attend the monthly general RCA meetings. The kids' meeting takes place in the adjoining cafeteria at OMSI from 7:30 p.m. to 9:00 p.m. If you have any questions, please e-mail Jennifer at jenny@theforrest.org.

Camp Hancock Dark Sky Star Party, March 28th & 29th, 2003

Camp Hancock is an OMSI sponsored field station for the promotion of science education located near the John Day River in NE Oregon. Directions can be found at http://www.rca-omsi.org/starpartysites.htm#hancock

Please inform Larry Godsey - 503-675-5217, as soon as possible if you have special diet needs or medical requirements

Lodging Options are (first come basis):

- Large (14 bunk) A-frame cabins
- Small (3 bunk) A-frame cabins
- Tipi (5 bunk) with wood frame door
- Limited RV parking (with limited electricity and water hookups)
- Tent areas

Cost is $14.00 per night per person for cabins and $8.00 for tent or RV.

Meals: Camp Hancock offers breakfast, lunch and dinner for our event (no breakfast or lunch on Friday and no dinner on Sunday.)

Meals must be paid for 2 weeks in advance (ordered by March 17th.) Late meal orders may not be available.

Meal Prices:
Breakfast - $3.75
Lunch - $3.50
Dinner - $4.75

Camp Hancock Guidelines:

- Camp stoves only, no open fires
- NO PETS (this has been an issue in the past, please respect the Camp's rules)
- No Bicycles (insurance/safety rule)
- Children must be monitored at all times
- No camping on the surrounding park service land
- The Staff housing area is off limits to guests.

Complete the form below and send it with your check to:
Larry Godsey
2846 Carriage Way
West Linn, OR 97068-2215

You are not registered until a check is received!

If you have any questions you can call Larry @ 503-675-5217 or e-mail him at "larrygodsey@att.net".

Remember - the deadline is March 17th and meals must be ordered & paid for in advance!

Registration Form

Activity	Friday	Saturday	Sunday	Total
Breakfast (3.75)	N/A			$
Lunch ($3.50)	N/A			$
Dinner ($4.75)			N/A	$
Cabin Lodging ($14.00)			N/A	$
RV or Tent ($8.00)			N/A	$
			Grand Total	$

Please make the checks payable to "Rose City Astronomers."

Name: _____.

Address: _____.

City, State, Zip: _____.

Telephone: _____.

E-mail: _____.

Number attending: _____.

Send This form and your Check To:

Larry Godsey
2846 Carriage Way
West Linn, OR 97068-2215

Payment for Food must be received by March 17!

'My Generation' - Telescopes & Rock n' Roll!

By Dareth Murray

An impromptu star party of 20,000!

Arriving at the Gorge Amphitheater Campground, we took the 10" Dob out of our truck and a security guard hurried up and asked if it was a rocket launcher! Some of the folks wandering by knew it was a telescope but most of the very happy (feeling no pain) concert campers were mystified. One thought we brought it to catch a glimpse of the rock stars warming up on the distant stage. Another grabbed the scope and looked through the focuser not knowing that in the daytime, it is dangerous even without an eyepiece. We quickly took it out of his hands before he could point it toward the Sun and stashed it away from harm. We were on our way to the concert!

The first light show was nature's - the sunset. The sun proceeded down the Gorge walls in orange and yellow hues - terrible and beautiful, like the tiger.

Next was the awesome concert light show, an impressive technological feat. The stage was lit up with huge strobe lights, banks of spotlights, and using long-wave length radiation, black lights that roamed the crowd. The entire spectrum from gold to ultra-violet was literally blinding.

The screaming Stratocaster guitar of Pete Townshend reminded us of a cartoon by Sidney Harris, where two cowboys, leaning over their horses, watch a steam locomotive pass by and discuss the scientific and technical details of a Doppler shift. That sound reverberated around the amphitheater and we saw stars when Pete decided his guitar wasn't quite performing the way he wanted it to. He proceeded to smash it to pieces against the monitors in front of the stage. Roger scrambled after some pieces and said "Pete, I can fix it!" The roaring of the crowd grew to a fever pitch when the band launched into a long version of "My Generation". Yes, it was and is our generation!

On the 3/4-mile hike back to the Gorge Campground, waiting for our night vision to adjust, we noticed the many lights along the walkway, contributing greatly to the overall light pollution. The high-pressure sodium parking lot lights were ablaze as at least 2 thousand cars scrambled to get home. It was a long wait for most. We were glad we had parked in the campground and were looking forward to getting back to the telescope. The skies had cleared and it looked like a pretty good night for observing the real thing.

Our final light show was really 'sidewalk' astronomy. Getting the 10" Dob on target, surrounded by a wall of Winnebagos, we were able to separate the double star, Albiero. Now we were attracting an audience of curious rock-happy campers. We quickly shifted to M13, which is always a crowd pleaser. Three Canadian lads who had traveled far to hear the Who were very impressed to see Andromeda and the Dumbbell Nebula. If the recreational science experience of observing might capture the imagination and interest of just one of the 20,000 music lovers and turn them into an amateur astronomer, it would be worth the trip! To turn someone new onto the stars! Who knows?

SPECIAL INTEREST GROUPS

ASTROPHYSICS / COSMOLOGY
Date/Time: March 20, 2003, 7:00 p.m.
Speaker/Topic: Doug Huston, Lagrange Points, Part II
Linus Pauling Complex, 3945 S.E. Hawthorne St., Portland

TELESCOPE MAKING WORKSHOP
Date/Time: March 15, 2003, 10 AM—3 PM
PLACE: Technical Marine Services Inc, 6040 N. Cutter Circle, Swan Island

ASTRO IMAGING SIG
This special interest group is intended for anyone interested in learning or sharing information and ideas about CCD, FILM and DIGITAL photography as they apply to aesthetic astronomy picture taking. Hoping to meet for the first time in March Possibly Thursday, March 13 in evening. For those who have not already expressed interest Please call:
Mike Cole at 360-604-7865 mrcole@earthlink.net or
Larry Godsey at 503675 5217 larrygodsey@att.net
Include any ideas for topics and meeting place

CLASSIFIED ADS

Run your non-commercial astronomy related classified ad in the monthly Gazette. Rates are reasonable (free!)

FOR SALE: Meade 4504 114mm reflector, Autostar, equatorial mount, includes original .965" eyepieces & barlow. Additional Autostar controller & computer cable. 1.25" eyepiece adapter. $200. call mark @ 503.970.3246 eves & weekends.

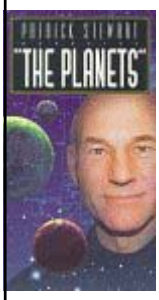
FOR SALE: Tasco 334 X 114 mm 13T.
It has only been out of it's box once....ten years ago. price: between $150 and $200. I may be reached at 1-800-436-2848 night or day. .Deanna and Don Bernard, Arch Cape Oregon
bernards@mail.pacifier.com

OMSI Star Party In March!

Spring officially begins with the vernal equinox on Thursday, March 20 at 5:00 pm PST. On Saturday evening, March 22, OMSI, Rose City Astronomers and Vancouver Sidewalk Astronomers will celebrate the vernal equinox and the beginning of spring with a free Star Party! Join us as we gaze at the spring sky at OMSI's east parking lot, located on 1945 SE Water Ave, starting at 7:30 pm. From beginners to experts of all ages, here's your opportunity to view the stars, and other objects up-close and personal through telescopes. Viewing highlights includes the planet Jupiter and Saturn, Orion Nebula, Beehive star cluster, and more! For possible weather cancellation, call (503) 797-4610 on March 22 after 3:00 PM to get the latest information. The 2003 OMSI Star Party schedule can be found on the OMSI website at www.omsi.edu <http://www.omsi.edu> under the planetarium links.

Library News

The Rose City Astronomers maintains a comprehensive club library of astronomy related articles, books, CD-ROMs and videos. These items can be borrowed by members through checkout at the general meetings for a period of one month with renewals available by phone or e-mail to the club library director, Jan Keiski (jikeiski@juno.com) - (503) 293-3281. The RCA library is constantly growing through many donations and the purchase of new materials. Most recently the addition of two videos:



"The Planets" narrated by Patrick Stewart - "Art meets science. Listen to Patrick Stewart's voice. Feel how it blends with the orchestra. This experience rates up there with Fantasia." "... one of those rare occasions where art and science meet and become more than the sum of the whole."

"Our Amazing Solar System" - Super computer visualizations. Soar over the volcano-scarred landscape of Venus and journey to the Grand Canyon of Mars. From Mercury to Neptune and Triton, this is the complete video saga of our amazing solar system.

And recent purchase of three new books: "Billions and Billions" by Carl Sagan; "Seeing in The Dark" by Timothy Ferris, and "The Planetary Observer's Handbook, 2nd Edition" by Fred Price.

Please welcome Jim Reilly to the library staff. Along with Tammy Ross he will be helping with the library table at the meeting along with longtime library staffers, Rea Young & Richard LaBar. Meg Grace will be also pitching in on as needed basis.

Online access to a list of library materials will be implemented within the next few months, with color coding of library materials by category at the meetings.

Visit the RCA library web page at:
http://www.rca-omsi.org/library.htm
Jan, RCA Library Director

RCA Photo Gallery

M51 Photo by Terry Johnson
Astro-Physics 130mm F6 scope on an
Astro-Physics 600GTO mount with an SBIG ST10XE
CCD camera on the back. Taken last year

M13 Photo by Terry Johnson
Astro-Physics 130mm F6 scope on an
Astro-Physics 600GTO mount with an SBIG ST10XE
CCD camera on the back. Taken last year.

In Memory of the Crew of STS-107

David M. Brown	**Laurel B. Clark**	**Michael P. Anderson**	**Ilan Ramon**
(CAPT, USN)	(CDR, USN)	(LTC, USAF)	(COL, Israel Air Force)
Mission Specialist	*Mission Specialist*	*Mission Specialist*	*Payload Specialist*

Rick D. Husband	**Kalpana Chawla**	**William C. McCool**
(COL, USAF)	(PH.D.)	(CDR, USN)
Mission Commander	*Mission Specialist*	*Pilot*

Oh, I have slipped the surly bonds of earth
And danced the skies on laughter-silvered wings;
Sunward I've climbed, and joined the tumbling mirth
Of sun-split clouds -- and done a hundred things
You have not dreamed of -- wheeled and soared and swung
High in the sunlit silence. Hov'ring there,
I've chased the shouting wind along, and flung
My eager craft through footless halls of air.
Up, up the long, delirious burning blue,
I've topped the windswept heights with easy grace
Where never lark, or even eagle flew.
And, while with silent, lifting mind I've trod
The high un-tresspassed sanctity of space,
Put out my hand, and touched the face of God.

"High Flight" by RCAF Flight-Lieutenant John Gillespie Magee Jr.

BOARD MEETING MINUTES

(EDITED)
FEBUARY 3, 2003
Ron Forrester

Present: Ron Forrester, Doug Huston, Carol Huston, Larry Godsey, Jeff Henning, Dareth Murry, Regis Krug, Matt Brewster, Sameer Ruiwale, Padric Ansbro, Scott Turner, Peter Abrahms, Bob McGown

Treasurer – Ginny: Nominal

Programming – Matt: February is Michael Fason on Radio Astronomy. March is Dean Kettleson Steward Mirror Lab.

Membership – Doug: 346 Member Families

Star Parties – Scott: Nominal

Community Affairs - Padric: Hooked up with Norm and got slides and presentations. Don't have a club projector, Jim Girard is likely to donate one. Jackson Bottom wetlands wants some RCA participation for their Salamander to Stars again this year, (summer) date is being worked out.

Sales – Sameer: $636

New Members – Carol: Lots of new members sign up last meeting.

Light Pollution - Bob: Talked to Tom Quinn who would like to put out a second Light Pollution article.

AL - Dale: Nominal

SIG's - Matt: Went through our printed SIG material and material from another club. Other club had a better guideline for termination of SIGs. Matt will email the board a policy for SIG's which deal with some of the finer points, such as financial support, liability, etc. Acceptance of the policy may be voted by on the list.

Magazine - Larry: Nominal

Editor - Regis: Question if we should keep HTML format of newsletter. There are space problems, and time considerations.

Library - Jan: Nominal

YRCA - Ron: Nominal

Webmaster - Dareth: Working on getting long running archives of the newletters.

OMSI - Peter: Going well.

Telescope Library - Jeff: Should get a good test of the Solar Scope this week.

Copying - Debrah: Nominal

Phone Line: Larry Feb. 3rd to March 3rd.

Kah-nee-tah:

When working with the new sales rep for this years event, we are being told there is an issue still from last year, where many people had to cancel due to weather, and the lodge has tried to bill us for the set of reserved rooms, nearly $2,000. The sales manager has proposed a new contract, which stipulates 30 room nights (15 people) a year for the next 3 years, at $75 a night, which is a commitment of $2250 a year – this would relieve us of from paying last years slippage fee. We have announced the event already, it's published. Much discussion or pro's and con's with agreeing to the contract offer.

The argument for accepting the contract is (essentially) that the contract represents a good deal on room rates, locks them into giving that rate for 3 years, and waives the previous year $1932 slippage fee – additionally, it is felt that it is almost a given that we can get 15 people at 2 nights, and so there is no risk of an additional slippage fee to the RCA.

The argument against accepting the contract is (essentially) that the contract involves the RCA committing $2250 per year for the next 3 years, to backing the Kah-nee-tah event in the case of a massive cancellation.

Doug motions to accept the 3 yr. contract as proposed by Kah-nee-tah. Matt seconds. 6 vote in the affirmative. 6 vote in the negative. 1 abstention. Motion is not passed.

Doug motions to accept the 3 yr. contract as proposed by Kah-nee-tah with following stipulations. Carol Seconds:

We don't do reservations (the lodge handles it)

7 vote in the affirmative. 6 vote in the negative. Motion passes by majority.

Ron motions that if negotiation fails, we cancel this years event at Kah-nee-tah. Sameer seconds the motion. Motion passes by majority, one abstention. The outcome of this motion does not preclude moving the event to a different venue this year.

Seven Strangers?
by Dr. Tony Phillips

At the dawn of the space age some 40 years ago, we always knew who was orbiting Earth or flying to the Moon. Neil Armstrong, Yuri Gagarin, John Glenn. They were household names--everywhere.

Lately it's different. Space flight has become more routine. Another flight of the shuttle. Another visit to the space station. Who's onboard this time? Unless you're a NASA employee or a serious space enthusiast, you might not know.

Dave Brown, Rick Husband, Laurel Clark, Kalpana Chawla, Michael Anderson, William McCool, and Ilan Ramon.

Now we know. Those are the names of the seven astronauts who were tragically lost on Saturday, Feb. 1st, when the space shuttle Columbia (STS-107) broke apart over Texas.

(Continued on page 9)

MY FAVORITE SPRING OPEN CLUSTERS

By Tim R Crawford

Arch Cape, OR

Open Clusters are the Jewels in the Crown of our Universe. Some appear to be structured, as if by some purposefully intelligence while others look random as if the artist was uncertain. However we perceive Open Clusters there is an almost universal conscientious that they truly appear to be Jewel like creations. If diamonds are a 'girls best friend,' then I like to think that Open Clusters are the amateur astronomer's best friend.

As of date, I have a total of 51 objects on my favorites list with 25 of them being Open Clusters. Having just recently received my 5 inch Maksutov-Cassegrain back from a 'supercharging,' by Dr. Clay Sherrod (http://www.arksky.org/index.htm) I was anxious to test out the drive train and the Autostar. Interface.

The first clear night that I had everything tuned up also happened to be one in which the moon was at 1st Quarter so there was quite a bit of ambient light present, probably more than most back yard observers deal with in a large urban area on a moonless night (on a moonless night at my location I typically have a visual limiting magnitude of 5.0 +). My back yard is also quite typical of many urban back yards as the total lot width is only fifty feet with a 100 foot depth; I also have two story homes on three sides and a eight foot wall on the fourth side.

As I wished to have a visually gratifying experience (February 8, 2003) as well as testing of the drive train and the Autostar I choose to focus on my favorite dozen open clusters, visible at this time of year, as most of them are of a reasonable size and brightness with the magnitudes ranging from 1.4 to 6.4.

When selected, the images of these Open Clusters appeared as if turning a kaleidoscope; it was difficult to leave each one of these old friends whose jewel like appearances were captivating and enchanting.

All of these Open Clusters should be visible from all North American Locations through Spring, however, it would be wise to select M34, M45 & M47 as early as possible, as April approaches, if your location will not allow for lower elevation viewing and you live above 45 degrees latitude. Given the size of most of these, they probably can best be appreciated at lower powers. These are all excellent choices for backyard, light polluted areas, and owners of smaller scopes.

- M34, Perseus, 5.2
- M35, Geminii, 5.5
- M36, Aurgia, 6.0
- M37, Aurgia, 5.6
- M38, Aurgia, 6.4
- M44, Beehive Cluster, Cancer, 4.0
- M45, Pleiades/Seven Sisters, Taurus, 1.4
- M47, Puppis, 4.4
- NGC869/884 (a double), Perseus, 4.4
- NGC1502, Kemble's Cascade/Golden Harp, Camelopardalis,5.3
- NGC1528, Perseus, 6.4
- NGC2281, Auriga, 5.4

Robert Millard's Observatory

Intro by Peter Abrahams

Robert Millard, of Portland, Oregon, in the 1930s, had a beautiful small observatory in the west hills with a 4 inch Bausch & Lomb refractor. The observatory is no longer extant. He knew the sky very well & found a nova in December through a hole in the clouds, a very handy ability in Oregon (he was one of two discovers). The pier for his 4 inch Bausch & Lomb refractor was a street lamp post.

AN ARTISTIC PRIVATE OBSERVATORY

By Robert E. Millard.

Popular Astronomy 38 (1930) 259-262.

My chief reason for deciding to build an observatory to house my 4 inch Bausch & Lomb equatorial was an economic one. Heretofore my use of the telescope was largely confined to the summer time with its quiet atmosphere and balmy weather; but the autumn, winter and spring winds, causing troublesome vibration, and the cold damp ground causing cold feet and strained conjugal relations, impressed upon me the need for a sheltered place from which to commune with the goddess Urania.

Although the thought uppermost in my mind was to get a full measure of efficiency from the excellent instrument, the appeal to my better half for her endorsement of the project was based upon hygienic grounds; and it was successful. As my home is in a scenic part of the west side residential district (1000 feet above the city) it was necessary to plan a building which would possess architectural beauty, while it was also desirable to keep the cost as low as good materials and workmanship would permit. I placed the matter in the hands of Mr. J. N. Justus who designed and built the observatory along the lines I suggested, achieving a structure which is widely admired as a model of beauty and utility.

The house is octagonal in shape, of frame consruction, and is supported by eight brick piers on concrete footings. The outside walls are of celotex panels, which three coats of paint render impervious to the rain. The studding is covered inside by a wainscoting of selected fir, stained and varnished, and there is a substantial floor laid upon 2 x 6 inch joists built around the concrete telescope pier. The cornice plate is of 2 x 12-inch stock cut octagonal on the outside and circular inside. A guard rail of 1/2 x 8-inch spruce in two-ply lamination is bent around the inside of the cornice plate to hold the dome in place, and a 4-inch track of heavy galvanized iron is laid upon the cornice

(Continued on page 9)

Robert Milliard's Observatory

(Continued from page 8)

plate, over which and up to the top of the guard rail is laid a flashing or covering of lighter iron.

The curved rafters of two-ply laminated 1-inch fir for the dome were cut at the mill, as well as the lower ring or plate to which they are attached. The latter is of three-ply lamination to give it greater rigidity. The rafters are joined by two circular rows of braces extending around the dome. The dome, which is covered with 16-ounce duck waterproofed and painted, is mounted on twelve ball-bearing roller-skate wheels, while eight more wheels act as thrust bearings to reduce friction against the guard rail. This valuable idea as well as that of using celotex for the walls, was obtained from the excellent article of Charles D. Higgs in the August-September, 1928, issue of Popular Astronomy.

The slit is twenty inches wide, and is carried only to the zenith, to simplify the construction of the type of shutter which we decided upon. The latter is of galvanized iron, and is extremely simple, having the sides bent or crimped around the edges of the galvanized strap iron tracks upon which it slides up over the dome, operated by a rope and pulley from inside. At the top and bottom lateral strips of light angle iron are riveted for stiffening. The advantage of this type of shutter is that it is simpler, cheaper, more weather tight, and does not rattle in the wind. A little grease on the tracks is all that is needed to insure easy operation; and a further advantage is that it is not always necessary to open the slit all the way up.

Two street-car straps with white, sanitary shields are attached to the rafters, one at the slit and one opposite, by means of which a comfortable grip is obtained, and the dome is easily turned. A seat and a writing desk, both of which can be folded up flat against the wall, comprise the furniture, while shelves, a book container and an eyepiece rack are built into the wall. The inside diameter of the room is ten feet, and from the floor to top of the dome is eleven feet six inches. The dome was built on the ground, and when all was ready, some of the neighbors came over and six of us lifted it into place. The event was one which the neighborhood had awaited with keen interest for two weeks, and was consummated with as much éclat as the launching of a ship. All of the construction work was done by hired help except the painting which I did myself. The total cost was $375.00. Portland, Oregon.

(Seven Strangers, Continued from page 7)

Before the accident, perhaps, they were strangers to you. But if that's so, why did you have a knot in your gut when you heard the news? What were those tears all about? Why do you feel so deep-down sad for seven strangers?

Astronauts have an unaccountable hold on us. They are explorers. Curious, humorous, serious, daring, careful. Where they go, they go in peace. Every kid wants to be one. Astronauts are the essence of humanity.

They are not strangers. They are us.

While still in orbit Dave Brown asked, jokingly, "do we really have to come back?"

No. But we wish you had.

Please see the NASA Home Page (http://www.nasa.gov) for more information on the Columbia Investigation.

March 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	**3**	4	5	6	7	8
9	10	11	12	**13**	14	**15**
16	**17**	18	19	**20**	21	**22**
23	24	25	26	27	**28**	**29**
30	31					

March 2003

Mar 3	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
Mar 13	Thu.	Astro Imaging SIG	TBD	TBD
Mar 15	Sat	Telescope Making Workshop,	Swan Island	10:00-3:00
Mar 17	Mon.	RCA Kids (ages 4-12)	OMSI lunchroom	7:30 PM
Mar 17	**Mon.**	**General Meeting OMSI**		**7:30 PM**
Mar 20	Thu.	Astrophysics/Cosmology SIG, Linus Pauling House		7:30 PM
Mar 22	Sat	Vernal Equinox Celebration S.P.	OMSI	
Mar 28-29	Fri-Sat	Messier Marathon S.P.	Camp Hancock	

April 2003

Apr 7	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
Apr 12	Sat	Planet Parade S.P.	OMSI	
Apr 19	Sat	Telescope Making Workshop, Swan Island		10:00-3:00
Apr 21	Mon.	RCA Kids (ages 4-12) OMSI lunchroom		7:30 PM
Apr **21**	**Mon.**	**General Meeting OMSI**		**7:30 PM**
Apr 24	Thu.	Astrophysics/Cosmology SIG, Linus Pauling House		7:30 PM

The RCA General Meeting falls on the third Monday of each month. We usually meet in the Auditorium at OMSI, next to the Murdock Planetarium. Occasionally the meeting is held in Murdock Planetarium. Check here each month for details, or look us up at the RCA web site (http://www.rca-omsi.org).

RCA CLUB INFORMATION

Message Line: (503) 255-2016

Web Site: http://www.rca-omsi.org

Oregon Museum of Science and Industry
Rose City Astronomers
1945 SE Water Avenue
Portland, Oregon 97214-3354

The
Rosette Gazette

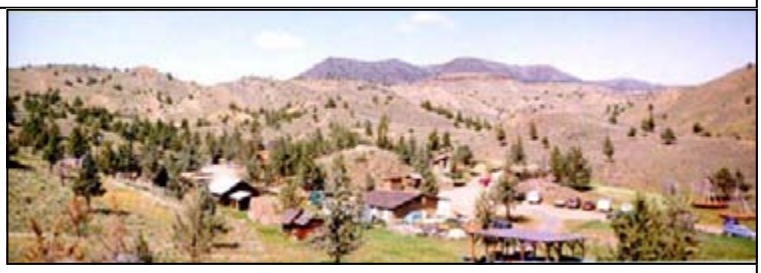
Volume 15, Issue 4 | Newsletter of the Rose City Astronomers | April, 2003

In This Issue:

Moon photos below courtesy David Haworth

Camp Hancock Dark Sky Star Party in May!

May 30th-31st, 2003.



Our Camp Hancock weekend outings have become a tremendous success. The Messier Marathon held at the end of March completely filled Camp Hancock to it's maximum capacity. At the end of May we will return again to enjoy the extremely dark skies of eastern Oregon.

You can go to the RCA web site for more information and an online interactive form that you can fill out on screen and print, or you can fill out the form on page 9. Make out your check to RCA (please, no cash). When you have filled out a form, either mail it to Larry, or bring it to the April 21st, or May 19th General Meeting. However, registrations will be only be accepted until the capacity of Camp Hancock is reached. So if we have reached the camp's capacity before May 19th we will NOT be accepting registrations at the May meeting.

Camp Hancock is a family camp setting. There are shared meals and the attendees help setup and breakdown meals. However, the cooking is excellent and performed by the camp cook.

Lodging is shared cabin-style. We are unable to reserve space in cabins (unless there is a medical necessity), and it is first-come-first-serve lodging. While there is plenty of space for everyone, you will be sharing a cabin with 4-12 other people (depending on cabin size). Cabins are lined on both sides with bunk beds and you need to bring your own bedding (pillow, sleeping bag and second warm blanket for this time of year!). We will hold one of the large A-frame cabins as a woman's only cabin. All other cabins will remain on a first come, first serve basis.

Bathroom facilities and showers are in a central location. So don't expect a hot-tub! There is hot water, showers, flush toilets, and sinks in the men's and woman's bathroom (yes there are separate facilities for the men and women).

Enough of the disclaimer: Camp Hancock has VERY dark skies. That's why we are there.

Camp Hancock is an OMSI-sponsored field station for the promotion of science education. The Camp is located the John Day river in NE Oregon (approximately 3.5 hours from Portland).

You can find out more about Camp Hancock by going to the RCA web site at:
http://www.rca-omsi.org/
and clicking the link to the "Camp Hancock Dark Sky Party May 30th-31st"

More Details and Registration Form on Page 9

Deadline for submission of articles, ads, and photos for the Gazette is the 20th of each month.

New Moon	First Quarter Moon	Full Moon	Last Quarter Moon
April 1, 11:18 AM PST	April 9, 4:40 PM PDT	April 16, 12:37 PM PDT	April 23, 5:18 AM PDT

Club Officers			
President	Peter Abrahams	(503) 699-1056	telscope@europa.com
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Camp Hancock Liaison	Glenn Graham	(503) 579-1141	the.grahams@verizon.net
Subscription Director	Larry Godsey	(503) 675-5217	larrygodsey@att.net
SIG Director	Matt Brewster	(503) 740-2329	brewster@teleport.com
Youth Programs Director	Jenny Forrester	(503) 504-8071	jenny@theforrest.org

President's Message

By
Peter Abrahams
April 2003

This has been an unusually good winter for observing. Not cold, no snow or ice in the metropolitan area; and while it is still 'Portland in winter', the rain has let up for some decent intervals. Personally, I've only done some driveway observing, but the active observers in the RCA have had one or two dozen nights of observing - depending on their tolerances for moonlight. And, we've had enough rain that it shouldn't be too extremely dry in the hills this summer. RCA's membership has grown well past the point where we don't know many of the members. If you have interests or skills that are in any way related to astronomy, please let us know. They can be technical (optics, computers), mechanical, organizational, professional (vision, illumination, physics), or personal interests (astronomy in history, literature, popular culture, or art). That kind of input is what keeps an organization alive.

Peter Abrahams

RCA

MAGAZINE SUBSCRIPTIONS

One of the main services offered to RCA members is subscriptions to *Astronomy* and *Sky & Telescope* magazines at a much reduced rate from newsstand prices. *Astronomy* $29 for one year or $55 for two years. *Sky & Telescope* is $29.95 for one year.

Checks must be made out to Rose City Astronomers to get the reduced rates.

For further information, see Larry Godsey, Subscription Coordinator, at the Membership Table at General Meetings or check the RCA website. Please note: Allow two months for your subscription to be renewed.

Sky & Telescope Store Discount

RCA members who subscribe to *Sky & Telescope* are entitled to a 10% discount at the *Sky & Telescope* online store at: *http://skyandtelescope.com/shopsky* To get your discount, enter Rose City Astronomers when prompted for your club name during checkout at the *Sky & Telescope* online store.

THE "KIDS" OF ROSE CITY ASTRONOMERS

RCA Kids

Children ages 4-12 are welcome to join in fun and educational activities while the grownups attend the monthly general RCA meetings. The kids' meeting takes place in the adjoining cafeteria at OMSI from 7:30 p.m. to 9:00 p.m. If you have any questions, please e-mail Jennifer at jenny@theforrest.org.

Musical Satellites

By Tony Phillips

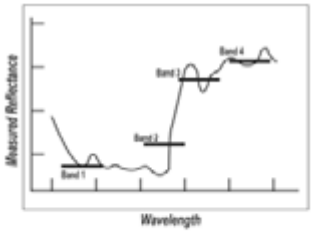
If light were sound, then chemicals would play chords. Water: C major. Cyanide: A minor. Chlorophyll: G diminished 7th. (Please note that the choice of chords here is only for the sake of illustration, and not meant to reflect the actual spectra of these chemicals.) It's a loose metaphor, but an apt one.

Musical chords are combinations of frequencies of sound (notes), while chemicals leave unique combinations of dips in the frequency spectrum of reflected light, like keys pressed on a piano. Spectrographs, machines that recognize chemicals from their "chords of light," are among the most powerful tools of modern chemistry.

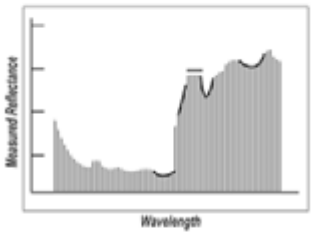
Most earth-watching satellites, like the highly successful Landsat series, carry spectrographs onboard. These sensors measure the spectra of light reflected from forests, crops, cities, and lakes, yielding valuable information about our natural environment. Current satellites do this in a fairly limited way; their sensors can "hear" only a few meager notes amid the symphony of information emanating from the planet below.

EO-1 could change that. Short for "Earth Observing 1," EO-1 is an experimental NASA satellite in orbit since 2000. It's testing out a more advanced "spectrometer in the sky"-the Hyperion hyperspectral imager. How good is it? If Landsat were "chopsticks," EO-1 would be Gershwin's "Rhapsody in Blue." The Hyperion sensor looks at 220 frequencies in the spectrum of visible and infrared light (0.4 to 2.5 microns) reflecting off Earth's surface. Landsat, in contrast, measures only 10.

Bryant Cramer, who manages the EO-1 project at the Goddard Space Flight Center, puts these numbers in perspective. "If we flew Landsat over the northeastern United States, it could readily identify a hardwood forest. But using hyperspectral techniques, you probably can . . . tell the oak trees from the maple trees." Future earth-watching satellites may use Hyperion-like instruments to vastly improve the environmental data they provide. EO-1 is paving the way for these future missions by taking on the risk of flight-testing the sensor for the first time.



Multispectral Imaging
(few bands)



Hyperspectral Imaging
(hundreds of bands)

Hyperion instrument distinguishes hundreds of wavelength bands, while current Landsat instrument images only a few.

For farmers, foresters, and many others, this new remote sensing technology will surely be music to the ears. Read about EO1 at:
http://eo1.gsfc.nasa.gov.
Budding young astronomers can learn more at:
http://spaceplace.nasa.gov/eo1_1.htm

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

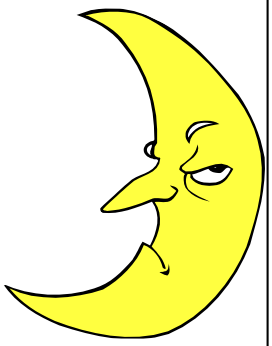
Lamentations

By Roger Curry
of the Northeast Florida Astronomical Society
<www.nefas.org>

Hostile photons in the air,
Hostile photons everywhere!
Silv'ry beams of cold moonlight
Spell the end to starry night.

Lovers by the Moon do croon,
Fiddlers play the Moon a tune,
But the man who hunts the sky
In search of wispy nebulae,
Spurns the Moon and bids her go
To that netherworld below.

Moon that's rising in the trees,
You've spoilt my view of galaxies!
From the sky the stars you've swept
I wish that you had overslept!



RCA is on Easystreet

by Larry Godsey

No we haven't come into an inheritance from a rich uncle, but you may have noticed at the bottom of all the RCA web pages a note thanking Easystreet for hosting our web site .

That's because the Easystreet Online Services' Nonprofit Program provides us, as a 501(C)(3) Non Profit organization, with super low cost web services .

We are only one of more than 200 area Non-profit organizations who are accessing the Internet, exchanging e-mail and hosting Web sites thanks to the EasyStreet Online Services' Nonprofit Program, thus saving money and resources to essential programs .

Founded in 1995 by a team of seasoned industry professionals, EasyStreet is locally owned and managed with a team of 37 employees. They were recently honored as the one of the fastest growing technology companies in Oregon by The Business Magazine.

"The Internet is undeniably one of the most powerful communication tools, particularly for nonprofits looking to distribute information as cost efficiently as possible to as many people as possible," said Rich Bader, CEO and president of EasyStreet. "Our nonprofit program has helped nonprofits save thousands of dollars in administrative expenses so funds can be redirected to essential programs. It's really one of our greatest success stories, now helping more than 200 organizations raise money, coordinate volunteers and connect people with their programs."

Easystreet provides services for both individuals and businesses and has a plan that allows customers to retrieve e-mail and use other online services from anywhere in the country, putting EasyStreet on equal footing with the big national ISPs. EasyStreet is Oregon's largest independent Internet Service Provider offering a full range of affordable, advanced hosting services to individuals and businesses .

The company is headquartered in Beaverton, Oregon and can be reached at "info@easystreet.com".

Our thanks go to Easystreet for their Nonprofit program.

SPECIAL INTEREST GROUPS

ASTROPHYSICS / COSMOLOGY
Date/Time: April 24, 2003, 7:00 p.m.
Speaker/Topic: David Tever, Extra-Solar Planets
Linus Pauling Complex, 3945 S.E. Hawthorne St., Portland

TELESCOPE MAKING WORKSHOP
Date/Time: April 19, 2003, 10 AM—3 PM
PLACE: Technical Marine Services Inc, 6040 N. Cutter Circle, Swan Island

ASTRO IMAGING SIG
This special interest group is intended for anyone interested in learning or sharing information and ideas about CCD, FILM and DIGITAL photography as it applies to aesthetic astronomy picture taking.
Date/Time: April 17, 2003, 7:30 p.m.
Place: Sean's Astronomy shop in Battleground WA
For information please contact:
Mike Cole @ 360-604-7865 mrcole@earthlink.net
or, Larry Godsey @ 503-675-5217 larrygodsey@att.net

ASTROMETRY, PHOTOMETRY, & SPECTROSCOPY SIG
The A-P-S SIG will meet 6:30 p.m. Wednesday, April 16th at the Colonial Office Complex Building B, 10175 SW Barbur Blvd., Portland (near Capitol Hwy.) The meeting will be held downstairs in the large conference room (near Suite 100 BB). The topic for this month's meeting will be Photometry with CCD's. This SIG is for folks interested in the use of CCD cameras for scientific purposes such as astrometry, photometry, or spectroscopy. For more information, see:
http://larrygodsey.home.att.net/RCA/apssig.htm .

CLASSIFIED ADS

Run your non-commercial astronomy related classified ad in the monthly Gazette. Rates are reasonable (free!)

FOR SALE: 8"Dosonian metal tube reflector F6 purchased from Seans astro shop used twice at home since 2/23/02 includes .9 ,25,and 40 mm Plossl eyepieces, 2X barlow and telrad w/flip mirror. Mint condition, asking 400.00 negotiable need to pay taxes. Call Paul Wiegand 503-656-6354 or 503-515-8755

WANTED: Responsible person to share ownership of the following telescope setup: LX90 8" SCT (3 years old) with JMI hardcase, Denkmeier binoviewer (with star sweeper and 2x corrector), 2 Eyepiece pairs (20mm Apogee widescan, 12.5mm Celestron Ultima). I recently put this together for $2200, and would share ownership for $1100. We would work out details about improvements or buying out, but my thought would be to physically trade it back and forth every month. Call David Dowler .. (503) 869-2899

OMSI Star Party April 12!

Two of the largest planets of the solar system and Earth's moon will dance across a palette painted by dusk April 12, when Saturn, Jupiter and the Moon will gather in the evening sky. To view the event, OMSI, Rose City Astronomers (RCA) and Vancouver Sidewalk Astronomers are throwing an Star Party at OMSI on Saturday, April 12 with weather permitting. The free event starts at 7:30 p.m. at the OMSI east parking area, located on 1945 SE Water Ave. Members of RCA and VSA will make their telescopes available to anyone who attends, and Jim Todd, OMSI Planetarium Manager, will present informal talks on the occurrence. From beginners to experts of all ages, here's your opportunity to view the stars, and other objects up-close and personal through telescopes. Viewing highlights includes the planet Jupiter and Saturn, Orion Nebula, Beehive star cluster, and more! For possible weather cancellation, call (503) 797-4610 on April 12 after 3:00 PM to get the latest information. The 2003 OMSI Star Party schedule can be found on the OMSI website at:

http://www.omsi.edu

under the planetarium links

Desert Sunset Star Party

May 1-4, 2003

Kartchner Caverns State Park
50 miles East Southeast of Tucson, AZ.

Our Early Registration Deadline has been extended to April 15, 2003 to accommodate those of you who have been hesitant to make plans too far in advance in these volatile times.

We hope many of you will join us to make the first annual Desert Sunset Star Party a memorable event. We have some great speakers each of the three nights along with afternoon vendors and demonstrations on Friday and Saturday.

You'll also want to check out the scheduled tours to Mt. Hopkin's Whipple Observatory, The University of Arizona Mirror Lab, EOS Technologies, and the Biosphere 2. And don't forget to bring your items for the swap meet Saturday afternoon, and that special homemade Astro-Tool for the SAT (Simple Astronomy Tool) contest on Saturday afternoon.

All registration materials are available on the web at:

http://chartmarker.tripod.com/sunset.htm.

RCA Photo Gallery

M16. Photo by Terry Johnson
Astro-Physics 130mm F6 scope on an
Astro-Physics 600GTO mount with an SBIG ST10XE
CCD camera on the back. Taken July, 2002

LIBRARY NEWS

The Rose City Astronomers maintains a comprehensive club library of astronomy related articles, books, CD-ROMs and videos. These items can be borrowed by members through checkout at the general meetings for a period of one month with renewals available by phone or e-mail to the club library director, Jan Keiski (jikeiski@juno.com) - (503) 293-3281. Visit the RCA library web page at:

http://www.rca-omsi.org/library.htm

Jim Reilly, my new library staff person, developed an Excel program that will catalog, and also track the materials folks check in & out at the club meeting.

Jim & I are implementing electronic checkout starting in April!

Jan, RCA Library Director

NASA Solves Half Century Old Moon Mystery!

Don Savage, NASA Headquarters

DC Agle, NASA Jet Propulsion Laboratory, Pasadena, CA

In the early morning hours of Nov. 15, 1953, an amateur astronomer in Oklahoma photographed what he believed to be a massive, white-hot fireball of vaporized rock rising from the center of the moon's face. If his theory was right, Dr. Leon Stuart would be the first and only human in history to witness and document the impact of an asteroid-sized body impacting the moon's scarred exterior.

Almost a half-century, numerous space probes and six manned lunar landings later, what had become known in astronomy circles, as "Stuart's Event" was still an unproven, controversial theory. Skeptics dismissed Stuart's data as inconclusive and claimed the flash was a result of a meteorite entering Earth's atmosphere. That is, until Dr. Bonnie J. Buratti, a scientist at NASA's Jet Propulsion Laboratory (JPL)in Pasadena, and Lane Johnson of Pomona College, Claremont, Calif., took a fresh look at the 50-year-old lunar mystery.

"Stuart's remarkable photograph of the collision gave us an excellent starting point in our search," said Buratti. "We were able to estimate the energy produced by the collision. But we calculated that any crater resulting from the collision would have been too small to be seen by even the best Earth-based telescopes, so we looked elsewhere for proof."

Buratti and Lane's reconnaissance of the 35-kilometer (21.75-mile) wide region where the impact likely occurred led them to observations made by spacecraft orbiting the moon. First, they dusted off photographs taken from the Lunar Orbiter spacecraft back in 1967, but none of the craters appeared a likely candidate. Then they consulted the more detailed imagery taken from the Clementine spacecraft in 1994.

"Using Stuart's photograph of the lunar flash, we estimated the object that hit the moon was approximately 20 meters (65.6 feet) across, and the resulting crater would be in the range of one to two kilometers (.62 to 1.24 miles) across. We were looking for fresh craters with a non-eroded appearance," Buratti said.

Part of what makes a moon crater look "fresh" is the appearance of a bluish tinge to the surface. This bluish tinge indicates lunar soil that is relatively untouched by a process called "space weathering," which reddens the soil. Another indicator of a fresh crater is that it reflects distinctly more light than the surrounding area.

Buratti and Lane's search of images from the Clementine mission revealed a 1.5-kilometer (0.93 mile) wide crater. It had a bright blue, fresh-appearing layer of material surrounding the impact site, and it was located in the middle of Stuart's photograph of the 1953 flash. The crater's size is consistent with the energy produced by the observed flash; it has the right color and reflectance, and it is the right shape.

Photo by:
Dr. Leon Stuart
Nov 15, 1953
1/2 sec exposure
8” F/8 reflector

Having the vital statistics of Stuart's crater, Buratti and Lane calculated the energy released at impact was about .5 megatons (35 times more powerful than the Hiroshima atomic bomb). They estimate such events occur on the lunar surface once every half-century. "To me this is the celestial equivalent of observing a once-in-a-century hurricane," observed Buratti. "We're taught the moon is geologically dead, but this proves that it is not. Here we can actually see weather on the moon," she said. While Dr. Stuart passed on in 1968, his son Jerry Stuart offered some thoughts about Buratti and Lane's findings. "Astronomy is all about investigation and discovery. It was my father's passion, and I know he would be quite pleased," he said.

Buratti and Lane's study appears in the latest issue of the space journal, Icarus.

The NASA Planetary Geology and Planetary Astronomy Programs and the National Science Foundation funded Buratti's work. The California Institute of Technology manages JPL for NASA.

More information about NASA's planetary missions, astronomical observations, and laboratory measurements is available on the Internet at:

http://pds.jpl.nasa.gov

Information about NASA programs is available on the Internet at:

http://www.nasa.gov

BOARD MEETING MINUTES

(EDITED)
MARCH 3, 2003
Ron Forrester

Present: Ron Forrester, Carol Huston, Larry Godsey, Jeff Henning, Padraic Ansbro, Peter Abrahms, Debrah, Ginny, Larry Deal, Jim Girard, Dareth Murray, Bob McGown, Matt Brewster, Jan Keiski

Treasurer – Ginny: $13,405 cash accounts.

Programming – Matt: March is Greg Sermach.

Membership – Doug: Nominal

Star Parties – Scott: March 22nd is an OMSI star party.

Community Affairs – Padraic: March 7th science fair at Errol Hassell Elementary School, Narjala Bhasker presenting . March 15th star party at Sexton Mountain Elementary School. Would like to get a pool of people who might be able to volunteer for various events throughout the year. Jim Girard has donated a slide projector to use for presentations, etc.

Sales – Sameer: Nominal

New Members – Carol: Nominal

Light Pollution – Bob: Dareth and Bob went to the IDA headquarters in Arizona, and discussed the IDA activity in Oregon. Gave the club some Power Point presentations, and a slide show on "The Aging Eye". Dave Kreagle called and is still doing his letter writing campaign, working in Clackamas County and Hood River.

AL – Dale: Nominal

SIG's – Matt: Nominal

Magazine – Larry G.: We have bested the last 2 years subscriptions, and we have 4 months out.

Editor – Larry D.: March newsletter hit the press on time.

Library – Jan: Jim Reilly put together a very nice Excel Macro package for library management, Jan is understandably excited. Still working on getting a cart to replace Sameer's.

YRCA – Ron: Nominal

Webmaster – Dareth: Easystreet will give us an additional 50Meg's of space if we drop a thank you into the next newsletter.

OMSI – Peter: Nominal

Telescope Library – Jeff: Solar scope is working, Need 25mm eyepiece. Larry D. offered Meade Super Plossl.

Copying – Debrah: Nominal

Phone Line: Dareth has it March 3rd to April 7th

Other: Bob brings up idea of adding to the website a directory of members with businesses. Peter points out there will likely be issues regarding doing that and our Non–Profit status.

Motion made to accept Larry Deal as newsletter editor, Ginny seconds – motion passes unanimously.

Budget discussion: Budget proposals due next month, vote happens in June. Pointed out that Padraic needs a budget. Haven't received an IDA bill, Ginny will look into it.

Looking to get an InFocus like projector. The general thought is it's too expensive and the price point just isn't right yet.

SIG's: Telescope making club still going strong. Astro–Imaging Group is also meeting.

Jim Girard is here to present the formation of the APS (Astrometry, Photometry, Spectrometry – science oriented CCD) SIG.

Carol motions that we approve the formation of APS SIG. Bob seconds the motion. Motion passed unanimously.

Discussion continues (again) on the proper process to get RCA approval of a SIG. Matt has written proposal on how to deal with SIG's in general, which needs to be discussed and finalized. Matt will post the proposal to the list.

Others think that a simple email to the board list is sufficient to deal with this.

There have been some issues with newsletter/website publishing incorrect meeting dates for various SIG's in the past.

SIG's get some benefit from being associated with the RCA, like obtaining meeting rooms.

Hancock Messier Marathon: Expecting maybe 30–40 signup's. 40 is a the minimum.

Kah–nee–tah: Current situation is they have not submitted a bill to us for 2002 slippage, and they have sent some emails opening the door for coming back in the future, including dealing with the past slippage charge. They are expected to deliver a proposal for next year, which will likely include a slippage clause.

Carol points out that it can probably be expected that future planned events will likely include the liability of slippage clause, etc. Carol is proposing that we think about possibly allocate part of our funds (or raise more) in order to cover slippage costs in the future – Carol will work up this idea and send a proposal to the board list.

Ginny points out that if we save funds for this, it becomes income which may be a problem with our non–profit status.

Carol points out that when you negotiate a special rate you incur liability of slippage whether it's in the contract or not.

Jim points out that many years ago money was collected for the first night plus banquet and a check would be sent to Kah–nee–tah. Members would be responsible for negotiating additional nights using their credit cards.

Hickson Compact Galaxy Groups

Otherwise known as the Hickson List, the Hickson Compact Groups (HCG) are, perhaps not surprisingly a list of galaxies in small, compact groups complied by a fellow named Hickson. What is surprising, that until 1982 when astronomer Paul Hickson formally set out to survey existing photographic plates for compact galaxy groups is that there were only about a dozen known. He came up with 100.

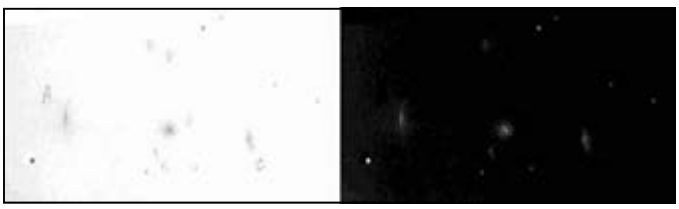
The April issue of Astronomy magazine has an excellent article on galaxy groups, and my intent is not to go over the same ground as that article. I took on the observational challenge of seeing as many of the 100 HCG's as I could about two years ago and my focus here is to share some thoughts about my experiences.

First off I want to state that observing even the brightest Hickson Compact Group is not pulled off with a casual look, even with a large scope. These subtle beauties are not for the faint of heart or small of scope, but I suspect a sufficiently determined observer with a 10" or larger scope would find many of the HCG's, or at least their brightest member.

I've read about others experiences on the web and was somewhat doubtful about my chances of seeing all 100 HCG's. Actually, Make that 99 HCG's – Hickson 50's brightest member galaxy is listed at magnitude 18.4 so it's commonly regarded as visually undetectable unless a 30" or larger scope is used. So right off the bat I was shooting for as many out the 99 as possible with my trusty 20" scope. I'm not ruling out seeing HCG 50 someday, but it very probably won't be through my current scope.

I muddled around a bit at first until I got a copy of the excellent observer's guide, Galaxy Groups and Clusters (http://www.rca-omsi.org/ggc/index.htm) put together by the RCA's own Bob McGown. Although the HCG's are just a portion of this detailed and well researched guide, the finder charts quickly became indispensable.

Individual Hickson galaxies are generally rather small and often exceedingly faint, so a group of 4 to 7 of these objects can be barely more detectable than the groups brightest member. Knowing the exact location was key to seeing anything at all for most of the Hickson's because sweeping the general area usually didn't pick them up. I more often than not needed to locate the exact location by star hopping using the finder charts and Uranometria, and then zoom in to view the group with a magnification generally around 400x.



Hickson 23, October 8, 2002. 413x

Locating each HCG was the most difficult challenge, and one that would all but disappear if I'd used digital setting circles. Being old fashioned and set in my ways, I've successfully resisted giving myself the advantage of this wonderful technology, but then I now know that I really can star hop to anything. It may also, somewhat unfortunately, make me even more old fashioned and set in my ways…

Sketching each group proved invaluable not just as a record of what I saw, and didn't see, but the process of sketching truly helped me see many more of these galaxies than I would have otherwise. Over the years I've found that sketching has helped me become a more astute observer, and it quickly became an enjoyable habit with the Hickson's.

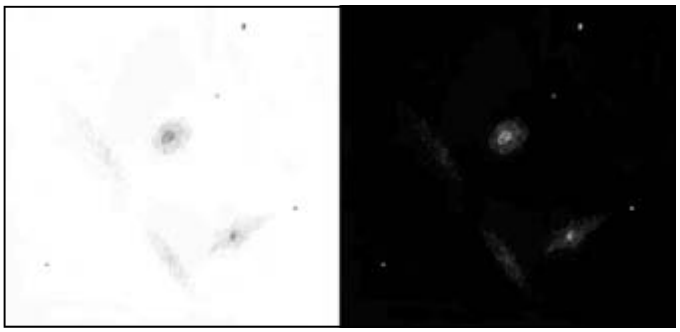
All that aside, the gift of observing Hickson's is in the seeing. Dark skies offer many rewards, and the Hickson's are among the most gratifying simply because they're so challenging. Catching a glimmer of a distant group of galaxies, contemplating the distance and time that faint light has traveled, and then trying to fathom the true nature of what is being seen is a great way to spend an evening.

Hickson 40, January 7, 2003. 413x

For example, picture the Milky Way with all its stars, nebulae and assorted exotic objects, the Magellanic Clouds, the even larger and equally incredible M31 with its companion galaxies, and the delicate spiral M33 all locked in a multi-billion year gravitational dance. The heart of the Local Group. Then hop on your imagination, quickly zoom out 50 million light years or so, and look back.

My goodness, what an excellent compact galaxy group!

Think of that when the faint trickle of ancient photons from a long ago and far away compact group strikes your consciousness. It's one of the great thrills of visual observing.



Hickson 61, June 11, 2002. 455x

Camp Hancock Dark Sky Star Party, May 30th & 31st, 2003

Camp Hancock is an OMSI sponsored field station for the promotion of science education located near the John Day River in NE Oregon. Information and directions can be found at http://larrygodsey.home.att.net/hancockparty.html

Please inform Larry Godsey - 503-675-5217, as soon as possible if you have special diet needs or medical requirements

Lodging Options are (first come basis):

- Large (14 bunk) A-frame cabins
- Small (3 bunk) A-frame cabins
- Tipi (5 bunk) with wood frame door
- Limited RV parking (with limited electricity and water hookups)
- Tent areas

Cost is $14.00 per night per person for cabins and $8.00 for tent or RV.

Meals: Camp Hancock offers breakfast, a sack lunch to be assembled after breakfast, and dinner for our event (no breakfast or lunch on Friday and no dinner on Sunday.)

Meals must be paid for 2 weeks in advance (ordered by May 19th.) Late meal orders may not be available.
Meal Prices:
Breakfast - $3.75
Sack Lunch - $3.50
Dinner - $4.75

Camp Hancock Guidelines:

- Camp stoves only, no open fires
- NO PETS (this has been an issue in the past, please respect the Camp's rules)
- No Bicycles (insurance/safety rule)
- Children must be monitored at all times
- No camping on the surrounding park service land
- The Staff housing area is off limits to guests.

Complete the form below and send it with your check to:
Larry Godsey
2846 Carriage Way
West Linn, OR 97068-2215

You are not registered until a check is received!

If you have any questions you can call Larry @ 503-675-5217 or e-mail him at "larrygodsey@att.net".

Remember - the deadline is May 19th OR EARLIER if we fill the camp to capacity. Meals must be ordered & paid for in advance! Registration and Payment must be received by May 19th at the latest. Registrations will be NOT be accepted after we reach the capacity of the camp.

Registration Form

Activity	Friday	Saturday	Sunday	Total
Breakfast (3.75)	N/A			$
Sack Lunch ($3.50)	N/A			$
Dinner ($4.75)			N/A	$
Cabin Lodging ($14.00)			N/A	$
RV or Tent ($8.00)			N/A	$
			Grand Total	$

Please make the checks payable to "Rose City Astronomers."

Name: _____.

Address: _____.

City, State, Zip: _____.

Telephone: _____.

E-mail: _____.

Number attending: _____.

Send This form and your Check To:

Larry Godsey
2846 Carriage Way
West Linn, OR 97068-2215

Payment for lodging and food must be received by May 19th!

April 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

April 2003

Apr 7	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
Apr 12	Sat	OMSI Star Party!		7:30 PM
Apr 16	Wed	APS SIG (see p. 4)	Colonial Office	6:30 PM
Apr 17	Thu	AI SIG (see p. 4)	Seans Astro Shop	7:30 PM
Apr 19	Sat	TM Workshop	Technical Marine	10:00 AM
Apr 21	Mon.	RCA Kids (ages 4-12)	OMSI lunchroom	7:30 PM
Apr 21	**Mon.**	**General Meeting OMSI**		**7:30 PM**
Apr 24	Thu.	Astrophysics/Cosmology SIG	Linus Pauling House	7:30 PM

May 2003

May 3	Sat	Dark Sky Star Party	Klondike	
May 5	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
May 19	Mon.	RCA Kids (ages 4-12)	OMSI lunchroom	7:30 PM
May 19	**Mon.**	**General Meeting**	**OMSI**	**7:30 PM**
May 22	Thu.	Astrophysics/Cosmology SIG	Linus Pauling House	7:30 PM

The RCA General Meeting falls on the third Monday of each month. We usually meet in the Auditorium at OMSI, next to the Murdock Planetarium. Occasionally the meeting is held in Murdock Planetarium. Check here each month for details, or look us up at the RCA web site (http://www.rca-omsi.org).

RCA CLUB INFORMATION
Message Line: (503) 255-2016
Web Site: http://www.rca-omsi.org

Oregon Museum of Science and Industry
Rose City Astronomers
1945 SE Water Avenue
Portland, Oregon 97214-3354

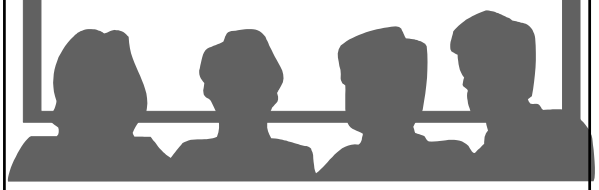
The
Rosette Gazette

Volume 15, Issue 5 | Newsletter of the Rose City Astronomers | May, 2003

In This Issue:

Moon photos below courtesy David Haworth

RCA General Meeting
May 19, 2003
"Hubble's Greatest Hits"
Presenter: Doug McCarty



Mr. McCarty will be providing a slide show and talk featuring some of the most beautiful and scientifically significant images obtained by the Hubble Space Telescope during the last decade. Please join the Rose City Astronomers for our Monday May, 19th General Meeting and enjoy this presentation.

Mr. McCarty has been an astronomy instructor and Director of the newly renovated Mt Hood Community College Planetarium Sky Theater for twenty years. He also taught astronomy at Lewis and Clark College, Marylhurst University, and Portland Community College.

Social Gathering 7 pm.
Meeting Begins: 7:30 pm.
Location: OMSI Auditorium

Messier Marathon Star Party
Camp Hancock, 2003
By Larry Godsey

March weather can be either really great or really bad and we lucked out and had three absolutely great days and two reasonably wonderful nights. The days were warm and as the afternoon progressed, the clouds started moving in and at dinner there were more than a few frowns as dusk descended. However, even though both nights started out with lots of clouds overhead and just a few thin areas to view through, about 9pm the clouds mostly disappeared and the view improved greatly.

There were a few high hazy clouds most of the night with quite a few clear patches, but by about 3am the seeing had pretty much shut down with heavy clouds. The skyglow was extremely bright both nights, especially in the northern sky, no color, just a very bright skyglow.

The ISS crossed the sky twice both nights and was extremely bright. Several people tried to view the ISS by using a Dob with one person guiding through the finder and the other viewing through the scope. No reports of seeing the panels or much detail, but fun trying anyway.

(Continued on page 9)

HST Photo above courtesy of the Space Telescope Science Institute and NASA

Deadline for submission of articles, ads, and photos for the Gazette is the 20th of each month.

New Moon	First Quarter Moon	Full Moon	Last Quarter Moon
May 1, 5:15 a.m. PDT	May 9, 4:43 a.m. PDT	May 15, 8:37 p.m. PDT	May 22, 5:31 p.m. PDT

Club Officers			
President	Peter Abrahams	(503) 699-1056	telscope@europa.com
Past President	Candace Pratt	(503) 296-6758	candace@europa.com
VP Members	Doug Huston	(503) 629-8809	geometer31415@aol.com
VP Observing	Scott Turner	(503) 788-6484	kings1@attbi.com
VP Community Affairs	Padraic Ansbro	(503)-349-4864	whiteowl@ansbro.com
VP, Communications	Matt Brewster	(503) 740-2329	brewster@teleport.com
Treasurer	Ginny Pitts	(360) 737-0569	vepitts@attbi.com
Secretary	Ron Forrester	(503) 504-8071	rjf@skyhackers.org
Sales Director	Sameer Ruiwale	(503) 681-0100	sameer_ruiwale@hotmail.com
Newsletter Editor	Larry Deal	(503) 708-4180	gazette_ed@comcast.net
New Member Advisor	Carol Huston	(503) 629-8809	StarsCarol@aol.com
Web Master	Dareth Murray	(503) 656-1293	dareth@cablerocket.com
Alcor, Historian	Dale Fenske	(503) 256-1840	fenskedf@juno.com
Library Director	Jan Keiski	(503) 293-3281	jikeiski@juno.com
Telescope Director	Jeff Henning	503-656-3041	j42h@aol.com
Media Director	Ron Forrester	(503) 504-8071	rjf@skyhackers.org
IDA Liaison	Bob McGown	(503) 244-0078	r_mcgown@msn.com
OSP Liaison	Dareth Murray	(503) 656-1293	dareth@cablerocket.com
Camp Hancock Liaison	Glenn Graham	(503) 579-1141	the.grahams@verizon.net
Subscription Director	Larry Godsey	(503) 675-5217	larrygodsey@att.net
SIG Director	Matt Brewster	(503) 740-2329	brewster@teleport.com
Youth Programs Director	Jenny Forrester	(503) 504-8071	jenny@theforrest.org

RCA

Magazine Subscriptions

One of the main services offered to RCA members is subscriptions to Astronomy and Sky & Telescope magazines at a much reduced rate from newsstand prices. Astronomy Magazine is $29 for one year or $55 for two years. Sky & Telescope Magazine is $29.95 for one year. Skywatch 2002 is available from Sky&Tel for $4.95. For more information go the the RCA web site Index and click on any of the magazine links or See Larry Godsey, Subscription Coordinator at the Membership Table at General Meetings.
Please note: Allow two months for your subscription to be renewed.

Sky & Telescope Store Discount

RCA members who subscribe to *Sky & Telescope* are entitled to a 10% discount at the *Sky & Telescope* online store at: *http://skyandtelescope.com/shopsky* To get your discount, enter Rose City Astronomers when prompted for your club name during checkout at the *Sky & Telescope* online store.

President's Message

By
Peter Abrahams
May 2003

I don't remember what the weather was like at 3:37 in the early morning hours of March 29, but if it was clear & you were 'looking up', a new 5th magnitude star would have been visible in Leo. This was a gamma ray burst (also emitting visible light), from 2 billion light years distant, GRB 030329, which is probably the closest and the brightest (at optical wavelengths) gamma-ray burst that has ever been observed. It lasted 50 seconds in the gamma ray region, and an unknown duration in the visible region.

It was detected by NASA's High Energy Transient Explorer 2, which fixed its location. An alert was broadcast, and astronomers at the Australian National University were first to find the 12th magnitude afterglow, 90 minutes later. The 8 meter VLT in Chile took a spectroscopic image, measuring a redshift of 0.1685, meaning 2 billion light years distance, which is two to four times closer than most gamma ray bursts. Amateur astronomers made many observations of this burst, and images from Finland were posted on the web.

Archival images show that there is no object at the burst's location that is brighter than mag 22, and the 'host galaxy' cannot now be found because of the brightness of the burst's afterglow. This glow has fluctuated in magnitude, brightening & dimming several times, which is a new phenomena, and it does not show the signs of a supernova remnant. There's always something going on up there.

Peter

The "Kids" of Rose City Astronomers

RCA Kids

Children ages 4-12 are welcome to join in fun and educational activities while the grownups attend the monthly general RCA meetings. The kids' meeting takes place in the adjoining cafeteria at OMSI from 7:30 p.m. to 9:00 p.m. If you have any questions, please e-mail Jennifer at jenny@theforrest.org.

Awards

Don Peckham
Lunar observing award Number 347

Robert Blickenderfer
All 110 Messier Objects Number 1906

Rick Andrews
All 110 Messier Objects Number 2050

Eric Anderson
All 110 Messier Objects Number 2042

Timothy Glynn
Over 70 Messier Objects Number 1979

Martin Alvey
Over 70 Messier Objects Number 2043

Gene Schaffer
Over 50 Binocular Messier Objects Number 527

For more info visit:
http://www.astroleague.org/al/obsclubs/obsclub.html

TELESCOPE-MAKING WITH JOHN DOBSON
Monmouth, Oregon

July 1-25, 2003 (Pre-Class Meeting Thursday, June 5)
Class fee is $120 plus materials.
For more information or to register contact:
Garth Eliassen, Oregon Sidewalk Astronomers.
PO Box 208, Monmouth OR 97361.
Call (503) 838-5697 (preferred) or e-mail eliassen@open.org

Build your own Dobsonian telescope in this annual class offered in Monmouth, Oregon. Instruction will include rough grinding, fine grinding, polishing, and correcting the primary mirror; building the tube and rocker box; and assembling the other components out of common materials into a superb telescope. John Dobson, 87, founder of the Sidewalk Astronomers, is world-renowned for designing the Dobsonian telescope.

IMPORTANT PRE-CLASS MEETING:
Thursday, June 5, 7-9 p.m.

At this preliminary meeting you will be shown completed Dobsonian night scope and sun scopes, be given instruction pamphlets, and order your mirror blanks. Be prepared to pay for the class ($120) and your mirror: mirror blanks for an 8" mirror will cost $80, a 10" mirror $140, and a 12.5" mirror $250. John Dobson recommends making a 10" telescope.

TELESCOPE-MAKING CLASSES:
Tuesdays and Thursdays, July 1-24, 7-9 p.m.

Mirror blanks will be handed out in the first class and rough grinding will begin. Subsequent classes will continue grinding and focus on construction of the telescope. In the third week, telescopes and mirrors should be completed so the accuracy of the mirrors can be read in the telescope and corrections made to the mirror surface.

GRADUATION LECTURE AND STAR PARTY:
Friday, July 25, 7 p.m.
Room 103 of the Science Building
Western Oregon University

John will host a free-wheeling two-hour question-and-answer session (discussing the whole Universe!) followed by a star party for telescope-makers to debut their new telescopes. The lecture and star party are free to the public, so invite family and friends and be sure to let others know! The Science Building is located at the corner of Jackson Street and Monmouth Avenue, six blocks west of 99W; the star party will be held in the adjacent parking lot next to the football field.

CLASS MATERIALS:

Details will be discussed and questions answered at the pre-class meeting. But essentially, in addition to buying mirror blanks, students will have to gather plywood, a large cardboard tube, and other miscellaneous supplies and tools necessary to make the telescope. A small diagonal mirror will also have to be purchased, and an eyepiece can be made from old binoculars (7x35, fully coated!). Students will also need sturdy buckets or other supports and a thick board to sit on while grinding the mirror, clean towels, and yogurt containers or small plastic bottles (for grits). Total cost for a completed 10" telescope (including the class fee) should be around $350; effective scrounging or sharing with other telescope-makers will mean less expense. A final expense will be aluminizing the mirror surface, about $35.

From Whence the Big Bang?

D. S. Huston

The Big Bang is pretty much universally accepted as the standard model for how the Universe began. In this model, the Universe began expanding from an infinitely dense, infinitely hot, infinitely small state. But where did this model come from? Who first thought this might be the case, and why?

It is often the case in physics, and science in general, that research in one field will produce unexpected results in another. This is the case with the discovery of the Big Bang. The answer to the question, "How did the Universe begin?" came from research into the relationship between electricity and magnetism.

In 1812, Michael Faraday, a largely uneducated bookbinder, attended a lecture by the great physicist Humphrey Davy. Humphrey Davy made significant contributions to our understanding of heat and thermodynamics. Following this lecture, Faraday sent a volume of notes, bound in leather, to Davy. Davy was so impressed he made Faraday his personal assistant.

(Continued on page 4)

From Whence the Big Bang? *(Continued from page 3)*

Faraday soon struck out on his own, experimenting with electricity and magnetism. Despite his limited scientific education, he became the leading experimental physicist of the 19th century and made the basic discoveries about the nature of electricity upon which almost all of our current applications of electrical energy depend.

Three of his discoveries started physics on the path to the big bang. Faraday invented the concept of a field. A field is an area of space in which each point is subject to some influence. For example a magnetic field is an area of space where each point has a magnetic force associated with it. If you put a piece of iron at any point in a magnetic field, it would feel a magnetic influence. This idea became crucial to the advancement of physics in general. The concept of fields pervades modern physics. Faraday also showed that if you move a piece of wire through a magnetic field, you generate an electric current in the wire. He also showed that an electric current generates a magnetic field. The concept of a field provided the theoretical foundation for physics to move ahead in its investigations of electricity and magnetism. The discoveries that a magnetic field can be used to generate an electric current and that an electric current generates a magnetic field showed there was some relationship between electricity and magnetism that needed to be investigated.

Following Faraday's basic discoveries, research on electricity and magnetism moved ahead but in a fragmented sort of way. There were a lot of "laws" associated with electricity and magnetism that applied to specific situations, but for a long time, there still wasn't a single, unified theory that described the relationship between these two fundamental physical entities.

This situation changed at the hands of a Scottish prodigy, James Clerk Maxwell. In 1846, at the age of 15, Maxwell entered Edinburgh University and became a full professor of physics at the age of 25. A mathematical genius, Maxwell made major contributions to the theory of gases, and explained the nature of Saturn's rings and color vision, but his most important accomplishment was developing a unified theoretical framework for electricity and magnetism.

Taking the various laws of electromagnetism that existed at the time, Maxwell was able to derive the connections between them. He created a set of five equations, now known as Maxwell's Equations, that successfully explained all aspects of the interactions of electric and magnetic fields. But, more importantly, Maxwell's Equations also predicted that light was an electromagnetic wave phenomenon that propagated with a definite velocity.

At the time, Maxwell's accomplishment was hailed as one of the crowning achievements of physics. But, there were problems. It turned out that even though Maxwell's Equations were spectacularly successful in explaining electromagnetic phenomena, they were inconsistent with one of the most basic principles of physics. They weren't invariant under the coordinate transformation laws developed by Galileo hundreds of years earlier. What this means is that the equations changed form if you tried to transform them from a set of coordinates at rest to a set in motion using Galileo's rules. In fact, under the Galilean Transforms they predicted that light would travel faster than the speed of light!

A young physicist, named Albert Einstein, working as a patent clerk at the time, showed the way out of this dilemma. He said the trick was to drop the idea that time was an absolute and instead assume that the speed of light was a constant regardless of the motion of the source of the light. You could then derive a new set of coordinate transformation laws that eliminated all the contradictions that appeared in Maxwell's Equations under the Galilean Transforms. He showed that the Galilean Transforms were just a special case of these new transforms, applicable when velocities were much less than the speed of light. This was the Special Theory of Relativity.

But, this theory had its problems too. It applied only to those coordinate systems either at rest or in uniform, non-accelerated motion. These types of systems are rare in nature. Einstein realized this, and immediately set out to extend his theory so it would be generally applicable to all coordinate systems regardless of their state of motion. This was a very tough job, and took 10 years to accomplish. The result was the General Theory of Relativity.

This theory made some spectacular predictions, but two of them were to give birth to the branch of physics known today as cosmology. Einstein noticed that his equations were time dependant, and when you set time equal to zero, they predicted that the universe was infinitely small, and infinitely dense. As you let time move forward from t=0, the universe got larger. The implications were clear, the universe began in an infinitely dense, infinitely small state and expanded from there, and should still be expanding. These predictions initially troubled Einstein, since everyone at the time "knew" the universe was static. However, not long after the publication of the General Theory of Relativity, the astronomer Edwin Hubble showed conclusively that the universe was, in fact, expanding, as the Theory of Relativity predicted it should be.

So, this then is where the Big Bang came from; it was a prediction by Einstein's Theory of Relativity. The Theory of Relativity was developed initially in response to some perceived inconsistencies in Maxwell's Equations. Maxwell's Equations, in turn, were developed to provide a unified theory of electromagnetism, in response to Faraday's experiments that showed there was some relationship between electricity and magnetism. It's like some magical series of nested presents, isn't it? Every time you open one present, there's another one waiting inside.

OMSI Star Party May 10!

Visitors to the Oregon Museum of Science and Industry will be star-struck on the evening of May 10 as they peer into and learn about the cosmos during the museum's Astronomy Day 2003 Star Party. Astronomy Day is a worldwide event designed to promote public awareness and interest in astronomy and space science. OMSI has planned its Star Party for 7:30 p.m. that evening, during which information about the outer planets, constellations and the universe in general will be shared.

The Star Party, hosted by OMSI, Rose City Astronomers and Vancouver Sidewalk Astronomers, will take place in OMSI's east parking lot, located at 1945 SE Water Ave. Beginners to experts of all ages will have an opportunity to view the stars and other objects through a variety of telescopes. Viewing highlights includes the Moon, Orion Nebula, Jupiter and Saturn. OMSI's Murdock Planetarium Manager Jim Todd will present informal talks about these and other celestial events in the spring sky. The Star Party is free and open to the public. Visitors should call (503) 797-4610 on May 10 after 3:00 PM to hear if the party has been cancelled because of poor weather.

CLASSIFIED ADS

Run your non-commercial astronomy related classified ad in the monthly Gazette. Rates are reasonable (free!)

For Sale: 12" Orion Deep Space Explorer Dobsonian. Great Condition, optics, smooth and balanced. Comes with Meade 8X50 spotting scope, Orion EZ Finder, Orion Aluminum Hardcase for lense the following lenses, TeleVue Nagler 9mm, Sirius Plossl 26mm and 7.5mm.
Asking $890 OBO
Robert 503-656-4243 robertlussier@earthlink.net

For Sale: Orion AstroView 120ST EQ Refractor/ mount. Includes a 6x30 finder scope, two 1.25" Sirius Plössl eyepieces (25mm and 10mm)f 1.25", a mirror star diagonal, and single-axis drive. $350
Contact Regis Krug at regis_krug@mentor.com or 503-682-2547

RCA Photo Gallery

Camp Hancock Star Party March 28 and 29, 2003
Photo was taken on the top of Cassegrain Hill. The red lights on the right side are from observers on Cassegrain Hill. The red lights on the left side of the center are from observers in DOB Valley. The bright white star trail on the left side is Vega with the constellation Lyra below it.
Camera: Minolta XD11 35mm
Lens: Minolta MD W Rokkor-X, 24mm f1:2.8 set at f1:4
Start of Exposure: about 11:00 PM
Exposure: one hour
Film: Fujichrome Provia 400F
Scanner: Epson Perfection 2450 Photo
Image processing software: JASC Inc. Paint Shop Pro Version 7.04

David Haworth
http://www.stargazing.net/david

The Pelican nebula
Astro-Physics 130mm F6 scope using an SBIG ST-10 CCD camera. Photo was taken in 2001
...Terry Johnson

Unitron Telescopes Part 2

By John W. Siple

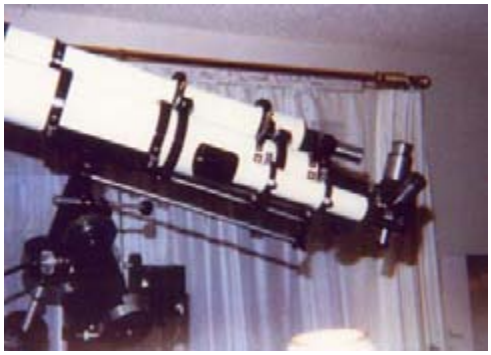
This is a supplement to the article written in the January, 2003 issue, and is focused on Unitron products manufactured from the years 1951-82. Unitron refractors are well-engineered instruments designed to withstand the test of time, and have become one of the most sought after collector's items in the astronomy marketplace. Although the performance is invariably good, some observers purchase these refractor telescopes just to display in their dens or living rooms. Unitrons are so-called "keeper scopes", that is, they soon acquire heirloom status in the family and are passed down from one generation to the next. The prices of used telescopes have soared in the past five years.

Unitron reached its peak in the late 1950's and 1960's, fueled in part by the launch of Sputnik and the Apollo Program. The basic appearance and model number of their telescopes (Unitron sold 1.6-6" refractors) has remained virtually unchanged since they first were sold in 1951 by United Trading Co. The only real change that has occurred has been in the accessories offered with the purchase of each telescope; as the economic climate has varied the amount of accessories proffered has declined, unless of course the buyer paid an additional amount.

A few unique Unitron items have been discontinued totally. The company has undergone some radical changes itself, one of the biggest happening in 1976 when it was sold to Ehrenreich Photo Optical Industries (EPOI), which was the only Nikon distributor in the USA at that time. Lawrence Fine, the American owner/partner of Unitron, passed away shortly thereafter.

If complete telescopes and accessories show up for sale they do not last long as eager collectors quickly snap up the prizes. Many baby-boomers have wished for a Unitron refractor after glancing at the advertisements on the back covers and inside pages of *Sky & Telescope* magazine. These are "classic" refractors, with long focal lengths and air-spaced achromatic objective lenses. The mountings are the standard German equatorial with a detachable electric motor drive riding on a small side shelf (Unitron also sold an expensive weight-driven clock drive mechanism on its 4-6" scopes). Optically most provide pinpoint star images on a velvety-black sky background, the nirvana of sky watchers, and hard to obtain in a normal reflector. The Orion Nebula M42 may appear brighter in a large reflector, but a Unitron refractor with its superior contrast gives a view that is unforgettable! Open star clusters resemble spilled sugar on a matte of coal dust.

Continued on page 7...



...Unitron Telescopes continued from page 6.

Shown (top row, left) is a Model #114 60mm. f/15 alt-azimuth Unitron of early 1950's vintage that was purchased out of THE THRIFTIES in the *Oregonian.* Interestingly, the objective lens is cemented rather than air-spaced, but this does not affect the performance. As-a-matter-of-fact, this has been one of the finest 2.4" scopes that I have ever looked through (it outperforms almost all vintage high-end Japanese imports). Note that the dewcap is solid brass and that the tube assembly attaches to the mounting by a crude saddle rather than by a wrap-around cradle. Units such as this are bringing $350-425. Somewhat scarcer than the alt-azimuth version is the Model #128 2.4" f/15 equatorial, one of Unitron's bestsellers. Originally offered at $225, these desirable refractors now bring $750.

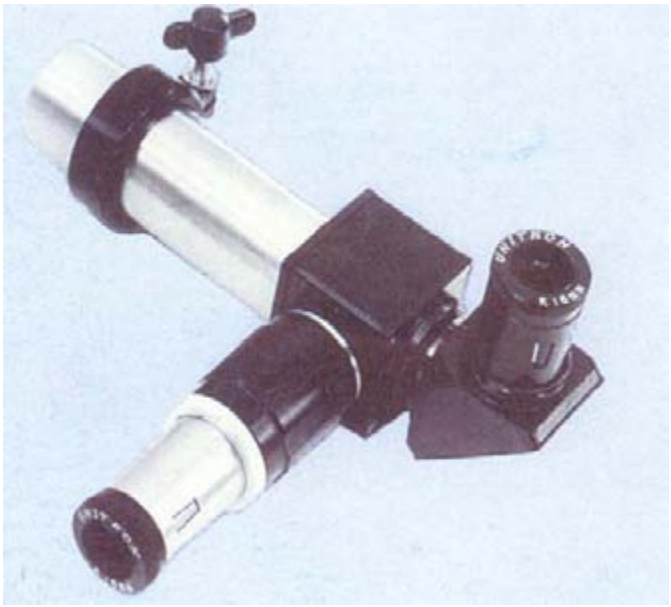
This Model #140 3" f/16 Unitron (top row, center) was purchased from a local antiques dealer who had acquired it at a storage auction. This particular scope has cases for both the OTA and tripod legs, a full set of 0.965" oculars, Unihex rotary eyepiece selector with achromatic amplifier (a simple Barlow lens), and a 1958 catalogue. The optical glass in this late 1950's scope is superb, with M13 resolved into stars and the Whirlpool Galaxy M51 showing as good as any 8" reflector. The OTA's without the collimatible outer lens cell are slightly preferred, as the objective lens tends to slide around in the newer style cells (the older machined inner objective cells with only the three-point pressure screws hold optical alignment better). The alt-azimuth mountings (and equatorials) are in high demand since a variety of short f-ratio refractors can easily be mounted on them (VERNONscope & Co. used to market an improved version with a small counterweight for their 94mm. f/7 Brandon line).

Model #145-C (top row, right), a 3" f/16 Unitron Photo Equatorial refractor, was found at an estate sale in NE Portland, Oregon. The age on this one is circa 1960, and optically ranked a 10/10. I have never seen the planets so well defined in any refractor (including Takahashi) as in this scope. Jupiter's belts were absolutely etched onto the planet! Scopes like this one give Unitron its outstanding reputation for optical excellence. 3" Unitron equatorials fetch $1000-1400.

This rare circa 1982 Model #150 4" f/15 alt-azimuth (bottom row, left) was purchased out of an ad in THE SKY-GAZERS EXCHANGE in *Sky & Telescope* magazine. This instrument provides portability with medium aperature in a refractor, and is fifty pounds lighter in weight than its cousin the Model #152 equatorial. Currently these beauties can sell for as much as $2500.

Model #155-C (bottom row, middle), a 4" f/15 Photo Equatorial refractor (now owned by Judy and Chuck Dethloff), was found in a classified ad in the *Seattle Times* newspaper. An unusually complete telescope, this was a custom job ordered for Comet West in 1976 and resold in time for Halley's Comet in 1985. See how the 60mm. guidescope attaches to the main scope by Uniclamps, and a large rotary eyepiece selector called the SuperUnihex slides into the focuser. A scope such as this if advertised would bring $3000 or more.

Sold on 4" Models #160, #166, and #166V (it is an integral part of 5 and 6" Unitrons), this is the famed Unitron weight-driven clock drive mechanism (bottom row, right). Guaranteed to attract a crowd of curious onlookers, this little unit is a favorite of Unitron fans. Rare and worth over $1000 with its metal shelf.



An accessory that is unique, this is Unitron's Duetron double eyepiece viewer. Two versions were sold. One version is designed exclusively for Unitron refractors (Model A), while the other unit (Model B) will fit into any 1.25" focuser. There is about 2/3 light loss in the side port, as the light beam is split.

Additions/Adjustments to 1st article:

- Correct to Nozawa-Setagaya-ku (line #14).
- Correct to #166 (line #35).
- Correct to Monochromatic (line #104).
- Unitron also sold Models #145, 160, 166 & 166V.
- Unitron used a variety of woods in their cases and tripods, especially mahogany.
- Unitron 5" and 6" f/16 refractors are scarce, with 5" used
  scopes selling for $8000-12,000. These are big observatory class instruments.

BOARD MEETING MINUTES

(EDITED)
APRIL 7, 2003
Ron Forrester

Present: Ron Forrester, Doug Huston, Larry Godsey, Dareth Murry, Matt Brewster, Sameer Ruiwale, Padric Ansbro, Peter Abrahms, Bob McGown, Debrah Hirshman, Larry Deal, Bob McGown, Jan Keiski, Dale Fenske

Treasurer – Ginny: $13,566 cash balance. Would like to have an accountant check our books for general comments or issues. We might look into membership to help out or recommend. Will budget for this.

Programming – Matt: Alex Ruzicka on Astrogeology. Doug McCarty for May with the Best of Hubble and do some things to help generate support for Haggard. June is the Planetarium show.

Membership – Doug: 374 member families.

Star Parties – Scott: OMSI start party on this Saturday the 12th. 107 people registered for Hancock, had to turn down 14 people. Donated $246.25 from the Hancock party to Hancock facility. Going back at the end of May, already have 12 people registered. Kah-nee-tah is currently attempting to get us pinned down for a part next year. May explore doing both Hancock and Kah-nee-tah next year.

Community Affairs - Padric: Kudos to Narjala Bhasker went Errol Hassel Elementary for astronomy related activities. Jackson Bottom Wetlands rescheduling request star party from Summer Solstice to October. Local TV stations were informed of the coming OMSI star party.

Sales – Sameer: $434 in sales

New Members – Carol: Nominal

Light Pollution - Bob: Renewal for IDA membership received. Nation Dark Sky week coming up. Would like to have someone speak at the April meeting, even if for a few minutes. Still talking about an Oregon section of the IDA.

AL - Dale: A lot of conversation between AL and the Galaxy Groups and Clusters group.

SIG's - Matt: Nominal

Magazine - Larry: Nominal

Editor - Larry: Been corresponding with LaserQuick to see if cost/convenience ration can be raised.

Library - Jan: Larry Swenson, Barry and Pauline Mogus picked up and built the new library cart. **4 people have lost library privileges temporarily due to extremely overdue library materials."**

YRCA - Ron: Nominal

Webmaster - Dareth: Current months speaker has a bio up on the website each month.

OMSI - Peter: Contract due for renewal in May, will likely keep things the same.

Telescope Library - Jeff: Nominal

Copying - Debrah: Lead time is longer this time of year, so give her about a month when you need something. Currently doing 2000 to 2500 copies a month, i.e. star party information, IDA, etc.

Phone Line: Larry for April. Main menu needs updating, may need to rearrange it to be more effective. Dale will make changes and report back.

Budget

Larry handed out a sheet with this years expenses compared to budget, as well as a first pass at a budget for next year.

Line items reviewed with values being adjusted on a first pass basis.

Estate Sale:

Jim Young is handling the estate of an astronomer, Charles Stauble, of Oakland, Calif.
Phone: 541-258-6274 (Lebanon is just east of Albany)

- Baush & Lomb Criterion 4000, 4 inch Schmidt Cassegrain, missing cord which is a standard piece. $100.
- Meade ETX: 90mm Astronomical telescope-ETX spotting scope. New condition. $200.
- Meade ETX: 90EC Astronomical telescope with electronic controls. New condition. $250.
- Celestron C8 on Byers mount, black tube, with motofocus, with filters & eyepieces, 8 inch solar filter, with Polaroid camera, $850.
- Canon EOS Elan II, with telephoto lens, with telescope adapters, paid $900., wants offers.
- Orion Mak500, Maksutov, 90mm, 500mm, f5.6, new condition.
- Bushnell spotting scope.
- Filters, t rings, camera mounts, LPR filters, 6 inch f8 mirror.
- offers possibly considered.

Special Interest Groups

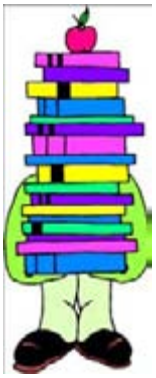
Astrophysics / Cosmology
Date/Time: May 22, 2003, 7:00 p.m.
Speaker/Topic: Lamont Brock, Venus
Linus Pauling Complex, 3945 S.E. Hawthorne St., Portland

Telescope Making Workshop
Date/Time: May 17, 10 AM—3 PM
PLACE: Technical Marine Services Inc, 6040 N. Cutter Circle, Swan Island

ASTRO IMAGING SIG
This special interest group is intended for anyone interested in learning or sharing information and ideas about CCD, FILM and DIGITAL photography as it applies to aesthetic astronomy picture taking. Meeting the 3rd Thursday of each month.
Date/Time: May 15, 2003, 7:30 p.m.
Place: Sean's Astronomy shop in Battleground WA
For information please contact:
Mike Cole @ 360-604-7865 mrcole@earthlink.net or,
Larry Godsey @ 503-675-5217 larrygodsey@att.net

Astrometry, Photometry, & Spectroscopy SIG
The A-P-S SIG will meet 6:30 p.m. Wednesday, May 21, at the Colonial Office Complex Building B, 10175 SW Barbur Blvd., Portland (near Capitol Hwy.) The meeting will be held downstairs in the large conference room (near Suite 100 BB). This SIG is for folks interested in the use of CCD cameras for scientific purposes such as astrometry, photometry, or spectroscopy. For more information, see:
http://larrygodsey.home.att.net/RCA/apssig.htm .

RCA Library



The Rose City Astronomers maintains a comprehensive club library of astronomy related articles, books, CD-ROMs and videos. These items can be borrowed by members through checkout at the general meetings for a period of one month with renewals available by phone or e-mail to the club library director, Jan Keiski (jikeiski@juno.com) (503) 293-3281.
Visit the RCA library web page at:
http://www.rca-omsi.org/library.htm

Table Mountain Star Party-2003
July 24, 25 & 26 2003

Pre-Registration Forms will be On-Line: May 23, 2003

http://www.tmspa.com

Table Mountain 2003, registration forms WILL NOT be sent automatically in the mail from your club lists! This is in part due to increased postage, many incorrect addresses provided to us, and it is just a time consuming and an expensive process

Registration forms will be ON-line on: May 23, 2003
The deadline for receiving pre-registration for this year is June 27, 2003
The deadline for receiving Late-registration for this year is July 11, 2003

The Table Mountain Star Party – "TMSP" – is an annual gathering of people interested in astronomy and it's many related topics. Most people attending are amateur astronomers, who enjoy the great viewing provided on the 6,357' mountain, however, anyone with an interest or curiosity is welcome to register and enjoy this unique experience. Make you plans now to attend and enjoy this event with hundreds of other stargazers. During the day there are speakers, vendors, food service, programs for the student, mountain biking on back roads, hiking, beautiful scenery and much more. At night, there are hundreds of telescopes, and other equipment through which you can view our universe.

Messier Marathon *(Continued from page 1)*

Several people found the nova in NCG3169. Not extremely bright, but noticeable if you knew where to look.

Sean brought a new Coronado H-alpha solar scope and the views of the sun's prominences and solar flares were spectacular.

The sky wasn't perfect, but still quite good, the temperatures were quite comfortable, the camaraderie was great …and it didn't snow…

We're going back to Camp Hancock on May 30th and 31st. The information is on the RCA web site along with the an interactive registration form that you fill out on screen, print out and mail to Larry Godsey.

As of the April meeting we have already registered 50% of the capacity of the camp and will close down registration when we reach 100% of capacity. That will probably occur before the May general meeting. So if you wish to go, mail your registration in early.

May 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

May 2003

May 3	Sat	Dark Sky Star Party!	Klondike	
May 5	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
May 10	Sat.	Astronomy Day Star Party!	OMSI	
May 15	Thu.	Astro Imaging Sig	Seans Astronomy	7:30 PM
May 17	Sat.	Telescope Making Workshop	Swan Island	10:00 AM
May 19	Mon.	RCA Kids (ages 4-12)	OMSI lunchroom	7:30 PM
May 19	**Mon.**	**General Meeting**	**OMSI**	**7:30 PM**
May 21	Wed.	APS Sig	Col. Office	6:30 PM
May 22	Thu.	Astrophysics/Cosmology SIG	Linus Pauling House	7:30 PM
May 30-31	Fri.-Sat	Dark Sky Star Party!	Camp Hancock	

June 2003

June 2	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
June 16	Mon.	RCA Kids (ages 4-12)	OMSI lunchroom	7:30 PM
June 16	**Mon.**	**General Meeting**	**OMSI Planetarium!**	**7:30 PM**
June 19	Thu.	Astrophysics/Cosmology SIG	Linus Pauling House	7:30 PM

The RCA General Meeting falls on the third Monday of each month. We usually meet in the Auditorium at OMSI, next to the Murdock Planetarium. Occasionally the meeting is held in Murdock Planetarium. Check here each month for details, or look us up at the RCA web site (http://www.rca-omsi.org).

RCA CLUB INFORMATION
Message Line: (503) 255-2016
Web Site: http://www.rca-omsi.org

Oregon Museum of Science and Industry
Rose City Astronomers
1945 SE Water Avenue
Portland, Oregon 97214-3354

Time To Renew Your Membership! ***See Page 7***

The
Rosette Gazette

Volume 15, Issue 6 | Newsletter of the Rose City Astronomers | June, 2003

In This Issue:

Moon photos below courtesy David Haworth

RCA General Meeting
June 16, 2003

Presenter: Jim Todd
Murdock Planetarium Director
Program: SkyVision™ demonstration

SkyVision™, a newly installed state-of-the-art, ultra-hi-definition, all-dome video system, adds to the powerful capabilities of the Murdock Planetarium's multimedia presentations.

The SkyVision™ all-dome projection system makes it possible for a planetarium style dome to be filled with a seamless video image. The audience then experiences the thrill of being immersed in the scene, no longer looking at a traditional screen's "framed" view, but able to look left, right, up, all around, as if they were actually sitting in the environment created by the domes surface.

Social Gathering: 7 pm.
Meeting Begins: 7:30 pm.
Location: OMSI Planetarium

Oregon Star Party 2003!
Mars Magic and More!

by Bill Jensen,
OSP Publicity Coordinator

You can almost set your watch by it.

The newbie crowd has almost all gone away, and you have gotten into some more serious observing. The others around you are jumping from scope to scope viewing dimmer NGC objects and swapping Naglers as they pursue the faint fuzzies. All of the group starts to feel the same urge, coming from deep within as the temperatures gradually fall. Then someone, maybe even yourself, gives in to the primal urge and you hear the yell of the wild: MO-CHAS! STARBURGERS!

(Continued on page 5)

HST Mars Photo above courtesy of the Space Telescope Science Institute and NASA

Deadline for submission of articles, ads, and photos for the Gazette is the 20th of each month.

First Quarter Moon	Full Moon	Last Quarter Moon	New Moon
June 7, 1:27 p.m. PDT	June 14, 4:16 a.m. PDT	June 21, 7:45 a.m. PDT	June 29, 11:38 a.m. PDT

Club Officers			
President	Peter Abrahams	(503) 699-1056	telscope@europa.com
Past President	Candace Pratt	(503) 296-6758	candace@europa.com
VP Members	Doug Huston	(503) 629-8809	geometer31415@aol.com
VP Observing	Scott Turner	(503) 788-6484	kings1@attbi.com
VP Community Affairs	Padraic Ansbro	(503)-349-4864	whiteowl@ansbro.com
VP, Communications	Matt Brewster	(503) 740-2329	brewster@teleport.com
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Camp Hancock Liaison	Glenn Graham	(503) 579-1141	the.grahams@verizon.net
Subscription Director	Larry Godsey	(503) 675-5217	larrygodsey@att.net
SIG Director	Matt Brewster	(503) 740-2329	brewster@teleport.com
Youth Programs Director	Jenny Forrester	(503) 504-8071	jenny@theforrest.org

RCA

Magazine Subscriptions

One of the main services offered to RCA members is subscriptions to Astronomy and Sky & Telescope magazines at a much reduced rate from newsstand prices. Astronomy Magazine is $29 for one year or $55 for two years. Sky & Telescope Magazine is $29.95 for one year. Skywatch 2003 is available from Sky&Tel for $4.95. For more information go the the RCA web site Index and click on any of the magazine links or See Larry Godsey, Subscription Coordinator at the Membership Table at General Meetings.
Please note: Allow two months for your subscription to be renewed.

Sky & Telescope Store Discount

RCA members who subscribe to *Sky & Telescope* are entitled to a 10% discount at the *Sky & Telescope* online store at: *http://skyandtelescope.com/shopsky* To get your discount, enter Rose City Astronomers when prompted for your club name during checkout at the *Sky & Telescope* online store.

President's Message

By Peter Abrahams
June 2003

The RCA Gazette is one of the major benefits of membership, and it is something that gives us a great deal of pride. We will probably have to make some major changes in the delivery of the Gazette, for reasons that are explained below, but first I will note that we will not lower the standards or the content of the Gazette, and we hope to minimize any undesired effects of these possible changes.
Our problem: we have a deficit of over $3,000, or about 25% of our budget, or about 25% of our bank account. Reducing or eliminating this deficit is a priority. This means raising dues or cutting programs.
At the May board meeting, many board members felt that raising dues was appropriate; but the consensus was that this should wait.
The only budget items which are sizeable enough to make a difference are programs (speakers) and the Gazette. The consensus was that programs should not be cut. The expenses of the Gazette are over $5,000 per year, or about 42% of the budget. We decided that we needed to make a very serious effort to persuade members to download a .pdf from the web site instead of receiving a printed version in the mail. The Gazette would not be emailed, but would be a .pdf file of about 1 megabyte that could be downloaded or directly printed without saving. It would be available at the end of the first week of the month, or before. It could include more color images, links to expanded content & to external sites, and much more.
At renewal time this year, we are asking RCA members, if at all possible, to download the Gazette from the RCA web site instead of receiving a printed version via the mail. On the renewal form, you will have to check a box if you wish to receive a printed copy, 'default' will be 'download a PDF '.
If about 2/3 of members accept an electronic Gazette, we will have eliminated our deficit. If not, we will eliminate the deficit by other means.
Thanks,
Peter

The "Kids" of Rose City Astronomers

RCA Kids

Children ages 4-12 are welcome to join in fun and educational activities while the grownups attend the monthly general RCA meetings. The kids' meeting takes place in the adjoining cafeteria at OMSI from 7:30 p.m. to 9:00 p.m. If you have any questions, please e-mail Jennifer at jenny@theforrest.org.

Astronomical Pronunciations

By Tim Crawford
Arch Cape, OR

While at Camp Hancock for the Messier Marathon I did hear a few rather interesting pronunciations of several constellations and stars. I myself have a similar problem with the pronunciation of many constellations and stars so I keep copies of two Astronomical Pronunciation Guides published by the Astronomical League handy. Astro Note 7, Guide I and Astro Note 14, Guide II. These are available for downloading at their website:
http://www.astroleague.org/index.html
Scroll to Astro Info on the left hand side of the page and you will see a link to Astro Notes.

As some examples, I am listing some of the more challenging names that are appropriate for this time of year.

Constellations:

Auriga ..... or-EYE-gah
Bootes ..... boe-OH-teez
Canes Venatici ..... KAY-neez ven-AT-iss-see
Canis Minor ..... Kay-nis MAYner
Ophiuchus ..... off-ih-YOU-kuss

Jupiter Moons:

Eurpoa..... you-ROE-pah
Ganymede ..... GAN-eh-meed

Stars

Arcturus ..... ark-TOO-rus
Betelgeuse..... BET-el-jooz
Denebola ..... de-NEB-oh-la
Procyon ..... PRO-see-on
Regulus ..... REG-you-lus

My intent in bringing this issue up is so that those of you with a curious interest in astronomical pronunciations will now know where to go for some answers. Frankly, being able to correctly pronounce some of these and other names is not a high priority for the enjoyment of our hobby; it is far more important to simply look up and be able to locate these and other objects (star guides help out here), whether with the naked eye, binoculars or a telescope; then maybe later on look into the proper pronunciations.

By the way, for those of you who are not familiar with the Astro Notes made available by the Astronomical league you will discover lots of other worthwhile information.

Robert Millard's 4 inch Bausch & Lomb refractor was discovered this past month at a school fund raising event.

This telescope was discussed in the March 2003 RCA Gazette. It appears to be in very good condition, although it has not been inspected by an astronomer. This telescope has a very unusual & high quality equatorial mount as it was 70 years ago:

The observatory on Council Crest St. in Portland.

The text from an article published in 1930,
'Millard, Robert E. An Artistic Private Observatory.'
Popular Astronomy 38 (1930) 259-262. can be found at:
http://home.europa.com/~telscope/Millard.txt

Millard was a noted variable star observer, a member of the AAVSO who submitted over 2,500 variable star observations to AAVSO's Harvard offices.

The current owner is interested in selling it to someone who appreciates its history. He is considering offers. Call Denny, 503-786-9960, in Portland, Oregon, after 2PM.

Our Place in the Universe
Bob McGown
Complexity II

Searching for personal meaning in life may bring us to discover our place in the universe. As we find our forgotten ancestors or grand parents, we are on a road to learn about ourselves. To know our place in the Universe is to have a deep heritage whose lineage goes from humanity's cradle to the roots of civilization on this planet. Talking to our parents and our teachers who gave us the tools to perceive our place in the universe may link the web of life and a centering.

To venture forward, we take a leap of the imagination and visualize ourselves as ants watching the planet. Are we only the observers in the Cosmos and have no effect or the outcome of a larger picture or is our model one of destiny? The desire for scientific inquiry transcends political boundaries. Is it our duty to record the data and events for those who come after us? How can we preserve this information for species even beyond this planet to be used? Perhaps, intelligent beings will look upon our civilization like the early Greeks culture whose wisdom is revered.

As our blue water planet is bathed in the Sun's radiation, we learn through physics that the Earth and the Sun have a life cycle. From models of the Sun, we see the Sun is half way through its 10 billion year life cycle. We see the life change on Earth, and we have to ask ourselves if life itself will move outward beyond this Earth into the cold icy atmospheric-less worlds, the abundant moons of the solar system. It is probably within our engineering capably to design a self-replicating life form that will live in space. Is it our destiny to have our children's children be intelligent robots that live in space? If this is to be our heritage, may our children venture forth with wisdom. Will they not do so since we have already despoiled the earth.

We have explored life from the past, and ventured into the future. Now we shall we will back up and observe from a vantage point above the disc of the Milky Way through astronomical observations. From here we observe 400 billion stars in our galaxy spiral arms that rotate once every 250 million years. This gives us an idea of the incredible grandiose scale of time. It is hard to fathom a visible universe of 400 billion stars in a galaxy and 400 billion galaxies! Imagine how many civilizations may have flourished and passed away in the countless planets of the known universe.

To know our place in the universe, we create astrophysical models. Like generations past who imagined the Earth as the cradle of life, we imagine the universe as our womb. Some theorists have imagined the universe as being a system closed by the assistance of intelligent machines. This would spare the heat death of the universe caused by continued expansion and cooling. What will happen to the universe? One possible outcome is the eventual heat death in time frames beyond our comprehension. Our quest for knowledge of our beginning and end goes on as we gather data and observe with our satellites, telescopes, and scientific instruments. So the answer to the question of what our place is in the universe is inconclusive as we continue our search for truth and purpose. In our search for the very beginning of the universe pondering, yet we haven't discovered how or if it will end, but we've established a starting place here and now. Is this the beginning of our enlightenment or from here will the Earth shrivel like a dried up pond in the desert devoid of life.

A poem that depicts the our fate in the universe by Robert Frost sharing some of his ideas in discussions with Harlow Shapely eloquently shares these ideas.

Fire And Ice

SOME say the world will end in fire,
Some say in ice.
From what I've tasted of desire
I hold with those who favor fire.
But if it had to perish twice,
I think I know enough of hate
To know that for destruction ice
Is also great
And would suffice.

OMSI Star Party June 7!

June 7 Star Party: Summer Solstice

Summer officially begins with the vernal equinox on Saturday, June 21 at 12:10 pm PDT. On Saturday evening, June 7, OMSI, Rose City Astronomers and Vancouver Sidewalk Astronomers will celebrate the summer solstice and the beginning of summer with a free Star Party! Join us as we gaze at the coming summer sky at OMSI's east parking lot, located on 1945 SE Water Ave, starting at 8:30 pm. From beginners to experts of all ages, here's your opportunity to view the stars, and other objects up-close and personal through telescopes. Viewing highlights includes the planet Jupiter, Nebulae, clusters, and more! For possible weather cancellation, call (503) 797-4610 on June 7 after 4:00 PM to get the latest information. The 2003 OMSI Star Party schedule can be found on the OMSI website at http://www.omsi.edu under the planetarium links

Welcome New Member!

Jain E. Konrad

Maupin Star Party!

Date: Aug.9, 2003
Exact Location: To be determined

The BLM is interested in co-sponsoring a star party in the Maupin area.

Please contact Don Paul Shula at 503-807-5343. E-mail: Dons2324@aol.com; if you are interested in volunteering, or for more details.

Thanks for your assistance. Please contact me if you are interested

Thanks again, Don Shula

Oregon Star Party! *(Continued from page 1)*

So you trot away from the eyepiece and join the masses forming as the last call for Starburgers is made at Mary Hanes's Chuckwagon. That delicacy is washed down by a double mocha at the espresso vendor, who stays open even later. And you see the Pleiades rising in the East as you ponder the miracle of feasting 40-50 miles from the closest (small) town in the middle of Central Oregon at a little after midnight. You will need that energy to observe until dawn intrudes!

Yes, the 16th annual Oregon Star Party is almost here. If you have not already marked the calendar, save August 28-31 for the best dark sky viewing available. Not to mention all the other fun stuff that OSP means, such as great speakers including Timothy Parker, who is a planetary geologist for JPL working on the Mars Landing Site Selection Project when he is not being an amateur astronomer; Richard Berry, author of several books and former editor in chief of Astronomy Magazine; Tom Polakis, contributing editor for Astronomy Magazine; Bill McLaughlin, a noted astroimager; David Sandage who will discuss the history of Mt. Wilson Observatory; and Howard Banich will keep Mars in focus with Mars Observing Techniques and Tips.

Of course we also will have vendors, on site shower truck, the aforementioned food and drink options, door prizes, and a great lineup of kid's activities. Not only do the kids have educational projects and craft works, but they get to run the ever popular Mars Rover Races. The adults get to view plenty of toys too, during the Telescope Walk About, a great way to share the experiences of ATM's under the clear skies over 5,000 feet high. You almost feel like you are on the Martian highlands.

Did I say Mars? This year Mars Magic will be the focus of OSP. Mars will be at opposition, its closest approach to earth, on August 28, 2003. It has been estimated that it was this close approximately 60,000 years ago. So the opportunity to view Mars with its full disk, under dark, high desert clarity of OSP is not to be missed. Join approximately 800 fellow amateurs to our Martian journey about an hour outside of Prineville, at Indian Trail Spring in the Ochoco national forest. Point your web browser to:

http://www.oregonstarparty.org/

There you can find out up to date information about the 2003 event, including signing up online, or downloading the forms if you prefer to mail them in. You can save some money by registering early, and at the same time you can buy shower tickets, shirts, and some of the pre-arranged suppers. So don't worry about what to do on Labor Day weekend, and start planning now for some of the best astro fun either side of the Mississippi River. I can almost smell the cookin' even now!

Dark Skies in Paradise **Observing at Mt Rainier**

By McGown & Murray

The dark skies of Mt. Rainier offer unique observing opportunities for the deep sky enthusiast. Catching clear skies in March for an observing session are very rare. Knowing this, we booked a cabin at the 'Almost Paradise' Lodge, only 2 miles from the entrance to Mt. Rainier National Park. Our plans included snowshoeing near the Nisqually Glacier on Mt. Rainier, at the Paradise Interpretive Center, to get some photos of the ice seracs and the blue hanging ice-wall of the glacier. We had not even thought of the possibilities of a mini-Messier event until the sky unfolded on Saturday night.

Near our Cascadian-type cedar cabin was a clearing, a level meadow that gave good horizons for observing. We had talked to our hosts and they were very enthusiastic about looking at the stars. They had never seen Jupiter or Saturn, let alone a nebula or galaxy. Friday night had high cirrus clouds but Saturday night was extremely clear without dew. The well-designed lighting at the lodge and grounds was directed downward and not obtrusive and our friendly hosts were quick to even turn off the house lights in order to get darker skies.

We set the 10" Coulter Dobsonian, with a two-inch focuser, up in the meadow near the lodge. This early spring evening was very warm, making it easy for our beginning observers to enjoy their experience. James, the son of Ron and Carol, our genial hosts, even though in a wheel chair, was determined to observe Jupiter and the Galilean moons. In the meadow clearing near the house, James discovered a new world. This night, the moons were lined up on one side, on Jupiter's ecliptic. We were able to get James to the eyepiece (see picture) and he was astounded. He then observed Saturn and other objects through the 10x50 binoculars, which were easier for him to use. In the 32mm eyepiece the Beehive cluster appeared to be superimposed with Jupiter.

The early spring sky was mesmerizing with the winter circle, Leo trio and the Virgo supercluser of galaxies. We began the observing with a quick tour of the skies, pointing out the planets, the Milky Way and various constellations. One of our favorites that was up later that evening at 50 power was M99 (aka, St. Catherine's Wheel) in the Virgo cluster, the second object that the Lord of Ross observed in his Leviathan telescope. We even talked about distances and the fact that the light from some of these stars is like time travel, in that we are really looking at ancient light. 'Look back' time is a difficult concept for most beginners. During the course of the evening's observations, we discussed the possibility of other intelligent life on the universe. The Drake equation, which attempts to put a probability on other life existing in the universe, needs to have another element, which would be the binary star factor.

The six-plus magnitude skies displayed many satellites throughout the evening. The most spectacular was the formation flying of satellites associated with the Naval Ocean Surveillance System (NOSS) satellite group, observed about 9:30 p.m. There were three satellites, the lead one (dimmer) and two following formed a triangle and were flying north to south. These satellites are thought to use radio interferometry to locate and track ships at sea with their radio transmissions. It was an amazing sight to see these three star-like objects moving so quickly. Their movement against the background of the sky was like a blink-comparitor contrasting two images to each other. These pinpoints of light, traveled southward along the zenith, in triangular formation, until they disappeared into the Earth's terminator.

As the night progressed the multi colored stars marched across the celestial sphere. We roamed around the meadow with the 'Dob' to observe objects low on the horizon and took turns sharing the sky identification as the night sky rose in the east. It was fun to explain how the telrad on the telescope worked. Ron quickly grasped the usefulness of the telrad and compared it to his spotting scope. After some instruction, he was able to use the telrad to locate Jupiter and before the night was over, we told him he was the local 'Jupiter expert'.

On this warm March night, on the flanks of Mt. Rainier, we really enjoyed the solitude and mellow atmosphere of our small star party. It was once again a thrill and joy to observe and be able to enlighten new friends with the lore of the night sky and the wonders of the universe. We are hopeful that our brief astronomy lesson will inspire James and his parents to look deeper into night sky. In fact as James remarked, after we had discovered the Navy satellites: "you just have to keep looking up!"

Rose City Astronomers
2003-2004 Registration Form
Family Membership is $24.00 per year

To initiate a new membership, renew your existing membership, or change your address, please fill out the following form and include your dues. **Please make checks payable to: The Rose City Astronomers**

and send to: **Membership**
Rose City Astronomers
Oregon Museum of Science and Industry
1945 SE Water Avenue
Portland, OR 97214

Sign-up forms and dues can also be turned in to the Membership Committee at the monthly meetings. A membership year runs from July 1 through June 30; new members signing up are charged a pro-rated amount based on the month they join through June of the following year. Rates are as follows: January - $36, February - $34, March - $32, April -$30, May - $28, June - $26, July - $24, August $22, September $20, October $18, November $16, December $14. Membership Packets are available at the meetings for new members. If you sign up through the mail, please see the Membership Table at the monthly general meetings to pick up your Membership Packet *(not available by mail).*

****

Check One: New Member_____. Membership Renewal_____. If renewing, is this an Address Change? _____.

Name (Please Print Clearly)_____. Date_____

Address Line 1: _____

Address Line 2: _____

City: _____. State: _____. Zip: _____

Phone: Home_____ Work_____ E-Mail: _____

___ DO NOT include my name/address/phone in the directory published to RCA members.

___ Add me to the RCA internet bulletin board list, a members' only posting site.

Please consider carefully: Printing and mailing 400 newsletters has driven RCA into a large deficit. Gazette costs are over 40% of our budget, an amount of money that could greatly help any of our programs. For this reason, we are asking RCA members, if at all possible, to download the Gazette from the RCA web site as a .PDF file, of about 1 megabyte, and print it on your own printer. The newsletter would not be emailed, but would be available no later than the end of the first week of the month.

- How do you want to receive the monthly newsletter (pick one, the *Default Choice is Internet*)?

  _____US Mail _____Internet (download 1 meg .PDF from http://www.rca-omsi.org/gazette.htm)

****

Where would you rate your level of expertise in amateur astronomy? Beginning - 1 2 3 4 5 - Advanced

Would you like some assistance from RCA Member Services to help you with a specific aspect of astronomy?

Getting started_____ Buying a Telescope_____ Making a Telescope_____ Equipment_____

General Questions_____ Star Parties_____ Observing Programs_____

Other_____

Would you like to be considered for volunteer opportunities or future board positions in RCA? _____

Do you have a special skill you would want to share with other members in RCA? (ie., signing for the deaf, public speaking, writing, internet web site, newsletter, accounting, legal, etc.) _____

Comments _____

****

Amount of Dues Paid _____, Please indicate if by Check or Cash _____

BOARD MEETING MINUTES

(EDITED)
MAY 5, 2003
Ron Forrester

Present: Ron Forrester, Doug Huston, Larry Godsey, Jeff Henning, Matt Brewster, Sameer Ruiwale, Padric Ansbro, Peter Abrahms, Debrah Hirshman, Jan Keiski

Treasurer - Ginny: $14,445 ($17,943 - $3,498 from Hancock) cash in bank.

Programming - Matt: Doug McCarty for May, June is Planetarium, looking into make sure we have enough seating for the show.

Membership - Doug: 388 Member families.

Star Parties - Scott: Nominal

Community Affairs - Padric: Call from Amy at Gales Creek Camp (Diabetes camp) for some activities for the kids, High School age.

Sales - Sameer: $338 in April.

New Members - Carol: Nominal

Light Pollution - Bob: Nominal

AL - Dale: Nominal

SIG's - Matt: Nominal

Magazine - Larry: Nominal

Editor - Larry: Nominal

Library - Jan: The library list is ready to go on the web, all else nominal.

YRCA - Ron: Nominal

Webmaster - Dareth: Nominal

OMSI - Peter: Nominal

Telescope Library - Jeff: Library in pretty good shape. Solar scope is more or less ready to go. Larry brought up the idea that perhaps people could be trained on the solar scope, a 30 minute class to train since it's a little more complicated than the average scope.

Copying - Debrah: Nominal

Phone Line: Phone line announcements are out of date, needs to be fixed. Larry will cover phone for May.

OMSI Contract is coming up end of May.

InFocus type projector: Got a response from a fellow at HP, and they have a grant program where they give funds to community groups. Pixelworks may be able to help set us up with a projector, since they run through many of them.

For our venue, we'll need to get an XGA (1024x768) at least 1500-1800 lumens, average prices are $2200. We currently spend $150 a month to OMSI for using their LCD Projector. We have used an LCD projector (OMSI or otherwise) for the last 12 consecutive months. Need to research replacement bulb prices.

Budget: Major topic is our newsletter printing costs, which currently run approximately 40% of our annual budget at about $5300 annually. Looking again for ways to mitigate this cost, such as internet only, raising dues, grants for the printing, etc.

Summary of Newsletter discussion from Peter:

At the board meeting tonight, the figures showed a deficit of over $3,000 for next years budget. The consensus (not voted) was that we needed to take serious steps to eliminate the deficit. This means raising dues or cutting programs.

Many board members felt that raising dues was appropriate; the consensus (I believe) was that this should wait. The only budget items which are sizeable enough to make a difference are programs (speakers) and the Gazette. The consensus was that programs should not be cut. The expenses of the Gazette are over $5,000 per year, or about 42% of the budget. We decided that we needed to make a very serious effort to get as many members on to 'electronic delivery' as possible. Members renewal deadline is July 1, thus in the near future most members will be renewing. We (Doug) will draft a renewal form that is an 'opt-in'

for post office delivery; default is e-delivery. It will note the importance of this step to the club, i.e. the alternative is raising dues, and note that only a notice will be emailed to the member, not the whole .pdf file.

Membership form will be revised such that unless you specifically ask, you will not get a printed newsletter, you would have to download it from the RCA website each month.

Will probably have to file an Form 990 for the IRS as our income will exceed $25,000 for the fiscal year July 1, 2002 to June 30, 2003..

Awards

Howard Knytych

Herschel 400

Award Number 275

For more info visit:
http://www.astroleague.org/al/obsclubs/obsclub.html

Special Interest Groups

Astrophysics / Cosmology
Date/Time: June 19, 2003, 7:00 p.m.
Speaker/Topic: Bob McGown, Observing the Local Group
Linus Pauling Complex, 3945 S.E. Hawthorne St., Portland

Telescope Making Workshop
Date/Time: June 21, 2003, 10 AM—3 PM
PLACE: Technical Marine Services Inc, 6040 N. Cutter Circle, Swan Island

ASTRO IMAGING SIG
This special interest group is intended for anyone interested in learning or sharing information and ideas about CCD, FILM and DIGITAL photography as it applies to aesthetic astronomy picture taking. Meeting the 3rd Thursday of each month.
Date/Time: June 19, 2003, 7:30 p.m.
Place: Sean's Astronomy shop in Battleground WA
For information please contact:
Mike Cole @ 360-604-7865 mrcole@earthlink.net or,
Larry Godsey @ 503-675-5217 larrygodsey@att.net

Astrometry, Photometry, & Spectroscopy SIG
The A-P-S SIG will meet 6:30 p.m. Wednesday, June 18, at the Colonial Office Complex Building B, 10175 SW Barbur Blvd., Portland (near Capitol Hwy.).

It is relatively close to freeway off and on ramps. You should be able to find it on Mapquest to get a better idea of where it is.

As a note of caution, the doors to the building are locked at 8:00 pm, so there is no way to get in after that.

The conference room is downstairs. There's a stairway as you come in the front door. Go down the stairs and turn to your left. It's down the corridor a couple of rooms on the left.

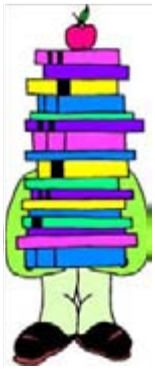
http://larrygodsey.home.att.net/RCA/apssig.htm .

Classified Ads

Run your non-commercial astronomy related classified ad in the monthly Gazette. Rates are reasonable (free!)

For Sale: Orion Apex 127mm Mak. Excellent condition.
Used 5 or 6 times. Includes 6x30 finder, 25mm Plossl eyepiece, and padded carrying case. Extras include a 90 degree mirror diagonal, fine-focus knob, tube rings for equatorial mount, and flexible dew cap. Asking $375 OBO. Contact Robin Bakerat bakerr@easystreet.com or 503-650-5817.

RCA Library



The Rose City Astronomers maintains a comprehensive club library of astronomy related articles, books, CD-ROMs and videos. These items can be borrowed by members through checkout at the general meetings for a period of one month with renewals available by phone or e-mail to the club library director, Jan Keiski (jikeiski@juno.com) (503) 293-3281.
Visit the RCA library web page at:
http://www.rca-omsi.org/library.htm

SIXTH INTERNATIONAL
MARS SOCIETY CONVENTION
August 14-17, 2003 Hilton Hotel,
Eugene, Oregon
The Mars Society was founded to further the exploration and settlement of the Red Planet. The International Mars Society convention presents a unique opportunity for those interested in Mars to come together and discuss the technology, science, social implications, philosophy and a multitude of other aspects of Mars exploration. Highlights of the convention will include the report from the fourth field season of the Devon Island Flashline Mars Arctic Research Station, the second season of the Mars Desert Research Station, the building of the Euro-MARS in Iceland, status reports from the Translife Mars Gravity Biosatellite Mission and Analog Rover teams, panels and debates concerning key issues bearing on Mars exploration and settlement, and keynote addresses from many prominent leaders of the effort to get humans to Mars.
Prior conventions have drawn thousands of participants from all over the world and received extensive press coverage in many leading international media. This year's conference should be the most exciting event to date.
Conference Registration Fees: $150 for MS members if paid before June 30th, 2003, $240 for non-members. After June 30: $190 for members, $280 for non-members. Students and Seniors: $35 for members, $80 for non-members.
Registration is now open online at www.marssociety.org

June 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

June 2003

June 2	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
June 7	Sat.	OMSI Star Party!	East Parking Lot	8:30 PM
June 16	Mon.	RCA Kids (ages 4-12)	OMSI lunchroom	7:30 PM
June 16	**Mon.**	**General Meeting**	**OMSI Planetarium!**	**7:30 PM**
June 18	Wed.	APS SIG	Colonial Office	6:30 PM
June 19	Thu.	Astrophysics/Cosmology SIG	Linus Pauling House	7:30 PM
June 19	Thu.	Astro Imaging SIG	Seans Astronomy	7:30 PM
June 21	Sat.	Telescope Making Workshop	Technical Marine	10AM-3PM

July 2003

July 7	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
July 21	Mon.	RCA Kids (ages 4-12)	OMSI lunchroom	7:30 PM
July 21	**Mon.**	**General Meeting**	**OMSI Auditorium!**	**7:30 PM**
July 24	Thu.	Astrophysics/Cosmology SIG	Linus Pauling House	7:30 PM

The RCA General Meeting falls on the third Monday of each month. We usually meet in the Auditorium at OMSI, next to the Murdock Planetarium. Occasionally the meeting is held in Murdock Planetarium. Check here each month for details, or look us up at the RCA web site (http://www.rca-omsi.org).

RCA CLUB INFORMATION
Message Line: (503) 255-2016
Web Site: http://www.rca-omsi.org

Oregon Museum of Science and Industry
Rose City Astronomers
1945 SE Water Avenue
Portland, Oregon 97214-3354

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The
Rosette Gazette

Volume 15, Issue 7 | Newsletter of the Rose City Astronomers | July, 2003

In This Issue:

Moon photos below courtesy David Haworth

RCA General Meeting

July 21, 2003

NEARBY STAR OBSERVING

Presented by Jerry Blackwell

What can be learned in the observation and study of the approximately 2600 stars within 25 parsecs (81.5 lightyears) from the Sun? It seems to be that the nearby stars are quite average and unspectacular as a group. It is maybe for this reason that this field of study has attracted so few investigators in the past. This provides a unique opportunity to gain expertise and engage in a personally rewarding study of this subject. Some of these stars can be studied with modest telescope equipment or with the many modern web resources that are available. There are many hundreds of these stars that have had little or no attention from the major surveys during the last 30 or so years. The study of Nearby Stars is important because the knowledge gained about our nearby neighbors is projected out into the study of our galaxy and beyond.

The NEARBY STAR OBSERVERS (NBSO) encourage members, from all experience levels, to participate in their specific interests (telescopic, photographic, CCD's, computers, etc.) and to significantly increase their knowledge about these stars and to share knowledge with and learn from other members.

Please join Jerry Blackwell, founder of NBSO, for his talk at the July General Meeting of the Rose City Astronomers.

Social Gathering: 7 pm.

Meeting Begins: 7:30 pm.

Location: OMSI Auditorium

OMSI Star Party July 12!

On Saturday evening, July 12, OMSI, Rose City Astronomers and Vancouver Sidewalk Astronomers will celebrate the 34th anniversary of the Apollo 11 landing on the moon with a free Star Party! At 9:30 p.m., visitors can greet the waxing gibbous moon, star clusters, nebulae and other celestial objects at OMSI's Star Party in the East Parking Lot. Beginning and expert star gazers are invited to join museum staff, the Rose City Astronomers and Vancouver Sidewalk Astronomers on Saturday evening to peer into the night sky through a variety of telescopes owned by club members.

Jim Todd, OMSI's Murdock Planetarium manager, will present informal talks on the moon's cycles, visible constellations such as the summer triangle, and the summer night sky. In addition, the museum will provide a large-screen, live image of the moon by connecting a projector to a telescope.

Todd said that the moon will be in a perfect position for viewing because of the angle of the sun, which will cast deep shadows on the surface. The moon will be in the fourteenth day of its cycle of 29.5 days around the earth, and will be visible after 8:45 pm PDT. "For astronomers, this is the best viewing opportunity to look at the moon's surface with binoculars and telescopes to see nice details of the craters and highlands," says Todd.

(Continued on page 7)

Deadline for submission of articles, ads, and photos for the Gazette is the 20th of each month.

First Quarter Moon	Full Moon	Last Quarter Moon	New Moon
July 6, 7:32 p.m. PDT	July 13, 12.21 p.m. PDT	July 21, 12:01 a.m. PDT	July 28, 11:53 p.m. PDT

Club Officers			
President	Peter Abrahams	(503) 699-1056	telscope@europa.com
Past President	Candace Pratt	(503) 296-6758	candace@europa.com
VP Members	Doug Huston	(503) 629-8809	geometer31415@aol.com
VP Observing	Scott Turner	(503) 788-6484	kings1@attbi.com
VP Community Affairs	Jeff Henning (until Padriac returns)	503-656-3041	j42h@aol.com
VP, Communications	Matt Brewster	(503) 740-2329	brewster@teleport.com
Treasurer	Ginny Pitts	(360) 737-0569	vepitts@attbi.com
Secretary	Ron Forrester	(503) 504-8071	rjf@skyhackers.org
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Web Master	Dareth Murray	(503) 656-1293	dareth@cablerocket.com
Alcor, Historian	Dale Fenske	(503) 256-1840	fenskedf@juno.com
Library Director	Jan Keiski	(503) 293-3281	jikeiski@juno.com
Telescope Director	Jeff Henning	503-656-3041	j42h@aol.com
Media Director	Ron Forrester	(503) 504-8071	rjf@skyhackers.org
IDA Liaison	Bob McGown	(503) 244-0078	r_mcgown@msn.com
OSP Liaison	Dareth Murray	(503) 656-1293	dareth@cablerocket.com
Camp Hancock Liaison	Glenn Graham	(503) 579-1141	the.grahams@verizon.net
Subscription Director	Larry Godsey	(503) 675-5217	larrygodsey@att.net
SIG Director	Matt Brewster	(503) 740-2329	brewster@teleport.com
Youth Programs Director	Jenny Forrester	(503) 504-8071	jenny@theforrest.org

President's Message

By
Peter Abrahams
July 2003

We asked RCA members to download the Gazette, instead of receiving a printed & mailed newsletter, and response so far has been very positive. We appreciate this gesture of support, and hope that none of the unpleasant alternatives will be necessary (raising dues, cutting programs, etc.) We received some good suggestions, including issuing a plain text version of the Gazette, which could be emailed -- these will be considered.

Quite a few persons told us that we should raise dues, and of course for those of us who are committed to astronomy, dues of $30 or $40 per year would not be a problem, given that the funds would go to something that we believe in. However, I wouldn't guess that the majority of our members are involved in astronomy to the degree that they would readily accept such an increase, and we have to balance the various factors. Please also make an effort to support Haggart Observatory at Clackamas Community College; the program at Mt. Hood Community College; Vancouver Sidewalk Astronomers & the other local astronomy clubs; and more distant groups such as Goldendale, Pine Mountain, & Sunriver. Above all, try to make a donation of money or time to the International Dark Sky Association; they are an effective group fighting the light pollution that is a definite threat to star gazing everywhere.

Thanks
Peter Abrahams

RCA

Magazine Subscriptions

One of the main services offered to RCA members is subscriptions to Astronomy and Sky & Telescope magazines at a much reduced rate from newsstand prices. Astronomy Magazine is $29 for one year or $55 for two years. Sky & Telescope Magazine is $29.95 for one year. Skywatch 2003 is available from Sky&Tel for $4.95. For more information go the the RCA web site Index and click on any of the magazine links or See Larry Godsey, Subscription Coordinator at the Membership Table at General Meetings.
Please note: Allow two months for your subscription to be renewed.

Sky & Telescope Store Discount

RCA members who subscribe to *Sky & Telescope* are entitled to a 10% discount at the *Sky & Telescope* online store at: *http://skyandtelescope.com/shopsky* To get your discount, enter Rose City Astronomers when prompted for your club name during checkout at the *Sky & Telescope* online store.

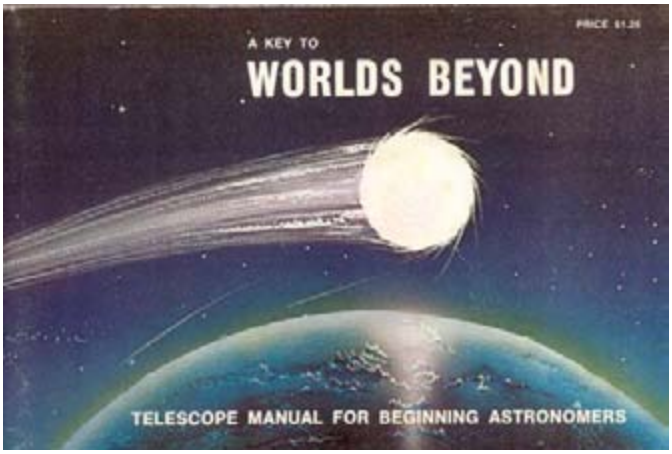
The "Kids" of Rose City Astronomers

RCA Kids

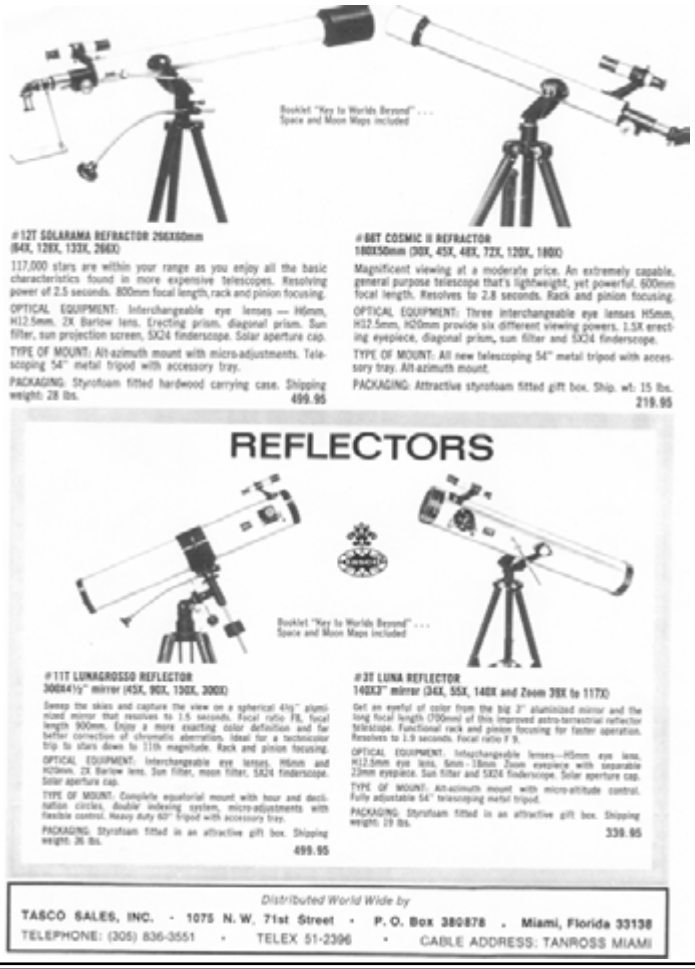
Children ages 4-12 are welcome to join in fun and educational activities while the grownups attend the monthly general RCA meetings. The kids' meeting takes place in the adjoining cafeteria at OMSI from 7:30 p.m. to 9:00 p.m. If you have any questions, please e-mail Jennifer at jenny@theforrest.org.

VINTAGE TASCO TELESCOPES

By John W. Siple



Tasco was started in 1954 as Tanross Supply Company by George Rosenfield. Telescopes manufactured from 1964-1979 rank among Tasco's best engineered instruments and are the crux of this article. Reflectors and refractors were made in Japan and then imported into this country. It was very common to see them in chain department stores such as Montgomery Wards, in hobby shops, and even OMSI used to sell their scopes.



Company headquarters is located in Miramar, Florida (not to be confused with Miramar [Wellington City Region], New Zealand, home of Sala Baker, the actor who plays Sauron the Dark Lord in THE LORD OF THE RINGS movie trilogy). A relatively complete history of the company with emphasis on its last years before going into default in 2001 can be found on Company Seven's (Montpelier, MD) very informative website at

http://www.company7.com/celestron/news/tascocrash.htm.

Raymond Barbera, retired owner of Optica b/c (and knowledgeable importer of superior quality telescopes from Japan), mentioned that Tasco acquired telescopes from firms in Japan and then sold them under its own label. GOTO OPTICAL MFG. CO., 1-115 Shimmachi, Setagaya-ku, Tokyo, Japan and TOWA were two big suppliers of Tasco instruments in the 1960's and 70's (in contrast, Unitron received its telescopes from NIHON SEIKO KENKYU-SHO, LTD., 11-10, 2-Chome, Nozawa, Setagaya-ku, Tokyo, 154, Japan). Numerous other importers of fine telescopes from that time period also purchased their merchandise from the same makers in Japan, so that is why many models sold by different companies in the USA (such as Sears, Colonial Optical Co. (Mayflower), Astro Optical Co., Ltd. (Chihayacyo Toshimaku, Tokyo, Japan), Jason/Empire, Inc., J.C. Penny, Selsi, etc.) look similar. For example, Tasco's Model No. 10K is basically the same as Jason's #324, Meade's #300, Towa's #339, and Sans & Streiffe's #618 (and it closely mimics Orion's 80mm. f/15 Sky Explorer II from the early 1990's).

Achromatic objective lenses for refractors came from Carton Optical Industries, Ltd., Tokyo, Japan (Carton was founded in 1930 and by 1951 was producing optical goods of various sorts; in 1964 they started selling quality made telescopes). According to Tim McKechnie of Captain's Nautical Supplies, Inc. (Seattle, WA) Towa and Tanzutsu also supplied Tasco with coated objective glasses.

All models came with 0.965" accessories. Usually there are three eyepieces of simple optical design (Huygens, Symmetric Ramsden or SR, Kellner, etc.), a 2 or 3X Barlow lens, an erecting prism for terrestrial viewing, a star diagonal, a moon filter, and solar projection set (the sun filter is next to worthless and experts recommend tossing it out—if solar observations must be made then a good commercial filter is highly advised!). The metal tube assemblies, painted with a durable gloss-white baked-on enamel, have a smooth rack and pinion focuser and most have either a 5X24mm. or 6X30mm. finder. The adequate mountings are supported by heavy metal or wood tripods with extendable legs. The finish throughout each instrument is an attractive dark grayish-black crinkle or plain buffed black. The better scopes have wooden storage cases, while others are packaged in a decorated Styrofoam-fitted gift box. Unfortunately thousands of these precision telescopes are now languishing in attics and basements, long forgotten and gathering dust.

Tasco telescopes are identified by a model number (there is also a registration stamp) and the high-end equatorial units have a serial #. The smallest commercial scope is #1VTE METEOR (30X30mm. 3-section telescoping pocket scope). #4VTE ASTEROID (50X40mm. Variable Power, Reg. No. 3450) and #6TE-5 COSMIC 100X (50mm. f/12, Reg. No. 56100) comprise the common tabletop models

(continued on page 4...)

Vintage Tasco Telescopes *(continued from page 3)*

The regular alt-azimuth refractors are #66T & #66TE-5 (180X COSMIC II, Reg. No. 566180—they use the same OTA as #6TE-5) and the 60mm. telescopes #9S, #9T STARBRITE, #9TE-0, #12T & #12TE-5 SOLARAMA (Reg. No. 512266), and #19T OBSERVATORY SELF-STORING. Two variable power alt-az refractors (430mm. f.l.) of 15-60X and 15-90X were also heavily advertised. The equatorial model numbers are 4380 STANDARD EQUATORIAL REFRACTOR (2.4" w/900mm. f.l., Reg. No. 37304), No. 7TE SOLARAMA 167X (DELUXE with $29.95 #1602E electric synchronous clock drive), #10K (#15K w/motor), No. 10TE/15TE PLANETARY REFRACTOR 300X, #14T SOLARAMA (60mm. f/15, Reg. No. 47300), and No. 20T/TE OBSERVATORY 4". Tasco's #11T & #11TE-5 LUNAGROSSO (D=4.5" F=900mm., Reg. No. 511300) 300X Newtonian reflector was very popular and has been imitated by many other manufacturers (a real nifty windup clock drive was available optionally). Its little brother the 3" #3T LUNA (Reg. No. 53140) sits on a simple alt-azimuth mounting. An expensive 6" f/8.5 hybrid (#16T Catadioptric) was sold by Tasco, but these are extremely scarce. Power seemed to be in vogue at that time ("the more the better") or it helped sales. For astrophotographers (TELE-PHOTOGRAPHY) their heavy-duty TEL-A-DAPTER #1601 camera bracket could be purchased separately. As can be seen from the page out of the 1979 catalogue, the prices of telescopes reached exorbitant levels as a result of the imbalance in the exchange rate between the Japanese Yen and the American dollar.

Advertisements for Tasco's "cream of the crop" or ultra precision refractors ran on page 179 of the March, 1969 and on page 352 of the November, 1969 issues of *Sky & Telescope* magazine. These scopes have hefty equatorial mountings with setting circles and motor drives, long slow motion manual controls, a Hastings style lens cell (three pairs of push-pull screws spaced 120 degrees apart for precise "squaring-on" of the Fraunhofer objective), and extendable Philippinian mahogany tripods with metal accessory trays (No. 20TE uses a tall pier instead). The ads show the 4380, and No.'s 7TE, 15TE (supplanted in the late 1970's by #15K), and No. 20TE. Shown below are plaques from examples of the 7TE and 10TE. The engraving indicates in millimeters the diameter of the objective lens and the focal length. The serial number is indexed by the factory/Tasco Sales, Inc.

From the author's collection. All rights reserved.

The picture of Model No. 15TE was taken out of Tasco's widely circulated 62-page booklet *A Key To Worlds Beyond* (copies can be found on www.abebooks.com, one of the country's largest Internet outlets for used books). The performance is excellent, and it ranks as one of the best all-around 3" refractors (the contrast is especially good in scopes made in the early 70's).The mounting used on Sears Model No. 6339-A and Tower 3" scopes looks very similar to that of the Tasco #10TE.

Model No. 15TE. One of Tasco's bestselling refractor telescopes.

The description for Model No. 20TE (from the 1979 catalogue) provides information about the company's most expensive telescope (the selling price was $950.00 in 1969). Few of these large pier-mounted 4 ¼" f/15 refractors were ever made. It is truly an observatory class instrument, and many were sold to schools and universities for their astronomy programs. Optica b/c, SPI, and Star flite Instrument Co. also imported/sold them.

Tasco telescopes often become available for sale at garage sales, thrift stores, estate sales, etc., generally for less than $50. #6TE-5 was found at Goodwill Industries for $19.99. All original and in excellent condition, this little gem of a small refractor has superb optics and sits on a wonderfully made tabletop tripod. #9TE-0 (2.4" w/710mm. focal length) was discovered at a moving sale for only $30. This telescope has great optics and craftsmanship, and would honor any expensive apochromat as a guidescope. Tasco's "ultra precision" refractors occasionally come for sale on the secondary market, but the price has been rising as collectors of fine vintage instruments realize the investment potential

One lucky RCA club member recently purchased a near mint condition No. 10TE with wooden case for $65 out of THE THRIFTIES in *The Oregonian*. #10TE scopes currently bring $300-400. *(continued on page 5…)*

Vintage Tasco Telescopes *(continued from page 4)*

#9TE-0 (Reg. No. 09236). A fantastic 60mm. (236X) alt-az scope.

No. 7TE, a 60mm. telescope with an unusually long focal length of 1000mm. (the 4380 STANDARD is virtually identical except for the focal length), brought $119.95 in 1969 and was heavily advertised in *Sky and Telescope*. It's considered by many Tasco enthusiasts as one of the best small refractors ever made, and undoubtedly places among the "Rolls-Royces" of instruments. Optically stunning, older units provide a crystal clear textbook diffraction pattern, which is hard to find in any inexpensive refractor (the images are especially pleasing for double star observers). The telescope displayed was found on an Internet auction site, and has been upgraded with a heavier vintage Sears wood tripod and custom metal accessory shelf. They are still one of the few bargains available to connoisseurs of fine instruments, and can be had for under several hundred dollars.

Model No. 7TE (Reg. No. 57500). One of the finest 60mm. telescopes ever conceived of.

Apogee, Inc. of Union, Illinois has been selling limited quantities of Carton objectives of certain focal lengths for a number of years. These are essentially the same as those that were used in some of Tasco's better refractor instruments, so replacing that chipped or cracked lens is simple (the objective lenses also foster wonderful telescope projects). Vintage Tasco 2.4-4.5" refractors and reflectors make great guidescopes or starter instruments (these were often gifts from a family member for a youngster to get them interested in the night sky) and are purchased secondhand for that idea in mind. So dust off that old Tasco and put it to use today!

Welcome New Members!

March 2003

Cari Arnett
Stephen Bridges
Richard Burke
Adam Cook
David Dowler
Tom Dummer
Adam Egge
Michael Flaherty
Stuart Hall
Dawn Heinemann
Nolan Huizenga
James Jackson
Brant Katkansky
Kenneth Murphy
Jeff Napier
Jim Nicholls
Herb Nissen
Gary Povlos
Gregory Rohde
Richard Savard
Laurie Stole
Webb Willbanks
Kevin Young

April 2003

Mauricio Austin
Alan Aversa
Arthur Baker
Harry Colvin
Christopher Dix
Randy Heberle
Jay McCarthy
Jack Semura
Jerry Smith

June 2003

Angela Berti
Michael and Jane Damiano
Scott Kindt
Lester Konrad
John T. Luna
Allen Morgan
David Nemo
Edy Schlosstein
Ethan VanMatre
Feng Yang

Awards

Matt Vartanian
70 Messier objects
Award No. 2061

Martin Alvey
110 Messier objects
Award No. 2043

Todd Leen
110 Messier objects
Award No. 2060

Todd Leen
Lunar features
Award No. 361

For more info visit:
http://www.astroleague.org/al/obsclubs/obsclub.html

Getting ready for the June 7 OMSI Star Party!

Photos by
Staff Photographer **Jan Keiski**

RCA Photo Gallery

M16 taken with an Astro-physics 130MM F6 scope on an Astro-Physics 900GTO mount with an ST-10XE CCD camera. Image was taken at ARGO in Central Oregon

Terry Johnson

M27 shot with Takahashi FCT 150 refractor at F7 and ST10XE ccd camera from my backyard in Vancouver WA on June 7

Mike Cole

M81 taken with an Astro-physics 130MM F6 scope on an Astro-Physics 900GTO mount with an ST-10XE CCD camera. Image was taken at ARGO in Central Oregon

Terry Johnson

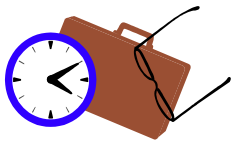
M104 shot with Takahashi FCT 150 refractor at F7 and ST10XE ccd camera in SE Arizona late April, early May

Mike Cole

OMSI Star Party *(Continued from page 1)*

The moon's surface is highly varied. Its nearside is made up of the dark, relatively lightly cratered maria (mah'-ree-ah), which covers about 16% of the surface. These regions are from 3.8 to 3.1 billion years old. The relatively bright, heavily cratered highland areas, also called the terrae, are older, and date to 4.3 billion years.

For possible weather cancellation, call (503) 797-4610 on July 12 after 4:00 PM to get the latest information. The 2003 OMSI Star Party schedule can be found on the OMSI website at: www.omsi.edu <http://www.omsi.edu> under the planetarium links.



BOARD MEETING MINUTES

(EDITED)
JUNE 2, 2003
Ron Forrester

Classroom 1

Present: Ron Forrester, Doug Huston, Larry Godsey, Jeff Henning, Dareth Murry, Sameer Ruiwale, Padric Ansbro, Peter Abrahms, Scott Turner, Dale Fenske, Jan Keiski, Larry Deal

Treasurer – Ginny: Nominal

Programming – Matt: Junes meeting is a planetarium meeting. The viewing will be done in two groups to assure there is space for everyone.

Membership – Doug: Nominal

Star Parties – Scott: OMSI Event Saturday. Regular summer time observing is beginning.

Community Affairs - Padric: Jeff volunteers to step in while Padric is away. Remove his name from the website so people don't try and contact him.

Sales – Sameer: $190 for May sales.

New Members – Carol: Nominal

Light Pollution - Bob: Nominal

AL - Dale: Nominal

SIG's - Matt: Nominal

Magazine - Larry: Nominal

Editor - Larry: Will need to wrap up the Gazette a little earlier in June and July.

Library - Jan: Nominal

YRCA - Ron: Nominal

Webmaster - Dareth: Put the OMSI star party on the front page.

OMSI - Peter: OMSI contract has been renewed. This month is the planetarium.

Telescope Library - Jeff: Got the solar scope working at Hancock. 2 of the eyepieces had a required eye relief of over an inch, which isn't really workable. The 32mm worked well though. Working on a training program/manual for people who want to check out the scope.

Copying - Debrah: Nominal

Phone Line: Will get rid of the extra mailboxes. Larry does June phone line.

The By-Laws do not require a quarum for budget approval, only that we agree on the amount of money set aside for OMSI, Hanckock and RCA proper.

Our new projector only works at 640x480, so speakers will need to be prepared for the lower resolution.

OSP would like borrow our projector and will return the favor with an additional bulb (at a cost of $250-$400).

Peter is out on August 4th, so is looking for someone to run the board meeting.

Membership application on the web may not match the one in the Gazette.

Budget vote:

The budget discussion was quite intense. We started with a nearly $3,000 budget deficit, and the only major areas for savings are Programming and Newletter printing. It was determined that rasing dues at this point will not be helpful (for this deficit) nor wise. However, it was discussed that in order to support more completely things like programming, printed newsletter, and the club library, at some point soon dues will have to be raised. In the end, the Programming budget was cut in half (from $2000 to $1000), along with a handful of other cuts in order to achieve a balanced budget. It is noted that the budget amounts represent those monies which can be used without a board vote -- if Programming requires some additional funds to bring in a speaker (for example), the board can vote on this as the occasions arise.

Doug motions that we accept the balanced budget as shown. Scott seconds. Motion passed by unanimously.

Scott will again apply to his employer for a donation to the club (on the order of $200).

SPECIAL INTEREST GROUPS

ASTROPHYSICS / COSMOLOGY
Date/Time: July 24th, 2003, 7:00 p.m.
Speaker/Topic: Michael Meo; "Hamiltonians in astronomy and physics; or Everything you wanted to know about infinite-dimensional dynamical systems but were afraid to ask"
Linus Pauling Complex, 3945 S.E. Hawthorne St., Portland
Contact Bob McGown (503-244-0078)
or Doug Huston (503-629-8809) for more information.

TELESCOPE MAKING WORKSHOP
Date/Time: July 12, 2003, 10 AM—3 PM
PLACE: Technical Marine Services Inc, 6040 N. Cutter Circle, Swan Island.
Contact Jim Girard <argo@teleport.com> for more information.

ASTRO IMAGING SIG
This special interest group is intended for anyone interested in learning or sharing information and ideas about FILM and DIGITAL photography as it applies to aesthetic astronomy picture taking. Meeting the 3rd Thursday of each month.
Date/Time: July 17, 2003, 7:30 p.m.
Place: Sean's Astronomy shop in Battleground WA
For information please contact:
Mike Cole @ 360-604-7865 mrcole@earthlink.net or,
Larry Godsey @ 503-675-5217 larrygodsey@att.net

ASTROMETRY, PHOTOMETRY, & SPECTROSCOPY SIG
No meetings this summer, the next meeting is scheduled for Thursday, September 17th at 6:30pm

Please Note: SIG Meetings are subject to change without notice. Please confirm with the contacts listed.

RCA LIBRARY

The Rose City Astronomers maintains a comprehensive club library of astronomy related articles, books, CD-ROMs and videos. These items can be borrowed by members through checkout at the general meetings for a period of one month with renewals available by phone or e-mail to the club library director,

Jan Keiski (jikeiski@juno.com)
(503) 293-3281.

Visit the RCA library web page at:
http://www.rca-omsi.org/library.htm

Deschutes Star Party!

Maupin, Oregon

August 9th, 2003

The Bureau of Land Management(BLM) has offered to co-host a Star Party on the Deschutes River August 9th, 2003.

Rose City Astronomers are invited to set-up their telescopes at the Sandy Beach takeout located 8 miles down river from the town of Maupin.

The Deschutes is a popular summer recreation destination. Those of you who have fished, rafted, or camped along the Deschutes know how good the "seeing" is there.

The Sandy Beach takeout for boaters is normally a "Day Use Only" area , however the BLM is allowing RCA to use the site for the star party.

RCA members may park their vehicles and set-up their scopes down by the Deschutes River. Visitors will park along the access road and walk down to the viewing area, thus minimizing traffic and dust. Outhouses are available, but there is no water or electricity.

Camping will be available at White River and Sherars Falls campgrounds.

WHAT TO EXPECT : a waxing gibbous moon , three days before the Perseid meteor shower , and an excellent chance for clear skies in Central Oregon.

Plus an opportunity to share your love and knowledge of astronomy and educate the public about the importance of DARK SKIES !

For more information and a map on how to get there contact...

Don Paul Shula 503-807-5343 or dons2324@aol.com

4th Annual West Linn Star Party!

August 29, 2003; 5:00 PM

Come join us for a fun evening as we once again look at the stars. Great time and place to introduce your kids (or yourself) to the wonderful hobby of stargazing and astronomy. As in past years we wll have telescopes set up for viewing, or bring your own. The evening will start with food and fun, swimming and fishing. Then as the night turns dark we will look up to see the wonders of the universe. Mars will be as close to Earth as it has been in 30,000 years. Many families set up tents and stay the night. We will get together in the morning for a fun breakfast and talk about the evenings fun.

Location: Spring Hill Farms
27127 SW Mountain Rd.
West Linn, OR 97068
503-656-4243

Directions: I205 to Stafford Exit, proceed 1 mile South on Stafford Road and turn left onto Mountain Road. Travel 2.6 miles on Mountain Road, the farm is on the right.

Contact: Robert Lussier, 503-740-7733,
rml@allnaturallandscape.com
Bret Bowman, 971-219-4961

CLASSIFIED ADS

Run your non-commercial astronomy related classified ad in the monthly Gazette. Rates are reasonable (free!)

For Sale:
Meade #64 T-adapter for ETX-90EC, -105EC, -125EC. New, never used. $30
Call Tom at 503-590-3386

Wanted:
TASCO model number 20TE pier mounted refractor from the 1960's or 1970's. BUY or TRADE Orion Skyview Deluxe 6" EQ. (f/5), THE GOLD STD. Extensive list of extras: Sky Wizard 3 (both axes 6"), Solar Filter, 7.5, 12.5 & 20mm. Sirius Plossls, 9 & 25mm. Plossls, Parks 3.8mm. Gold Series, Lasermate Collimator, Parks Light Pollution Filter, Variable Camera Adapter, 2 cases, charts and more. All mint (4 years old). A $1700 value. (541) 758-8326.

July 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

July 2003

July 7	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
July 12	Sat.	Telescope Making Workshop	Swan Island	10 AM-3 PM
July 12	Sat.	OMSI Star Party!	OMSI	
July 17	Thu.	Astro Imaging SIG	Seans Astronomy	7:30 PM
July 21	Mon.	RCA Kids (ages 4-12)	OMSI lunchroom	7:30 PM
July 21	**Mon.**	**General Meeting**	**OMSI Auditorium**	**7:30 PM**
July 24	Thu.	Astrophysics/Cosmology SIG	Linus Pauling House	7:30 PM

August 2003

Aug 4	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
Aug 14-17	Thu-Sun	Mars Convention	Eugene Hilton Hotel	
Aug 18	**Mon.**	**General Meeting**	**OMSI Auditorium**	**7:30 PM**
Aug 21	Thu.	Astrophysics/Cosmology SIG	Linus Pauling House	7:30 PM

The RCA General Meeting falls on the third Monday of each month. We usually meet in the Auditorium at OMSI, next to the Murdock Planetarium. Occasionally the meeting is held in Murdock Planetarium. Check here each month for details, or look us up at the RCA web site (http://www.rca-omsi.org).

RCA CLUB INFORMATION
Message Line: (503) 255-2016
Web Site: http://www.rca-omsi.org

Oregon Museum of Science and Industry
Rose City Astronomers
1945 SE Water Avenue
Portland, Oregon 97214-3354

The
Rosette Gazette

Volume 15, Issue 8 | Newsletter of the Rose City Astronomers | August, 2003

In This Issue:

Moon photos below courtesy David Haworth

RCA General Meeting

Gravitational Waves: A New Window to the Universe

James N. Imamura
Institute of Theoretical Science
University of Oregon

In the 1600's, Isaac Newton published the Principia in which he proposed his three laws of motion and the Universal Theory of Gravitation. Newton's theory for how things move explains quite nicely the motion of planets in the Solar System and most things in our everyday experiences. In certain situations, however, Newton's theory is known to be inadequate. To fix-up some problems, Einstein developed the Special and General Theories of Relativity which are considered to be one of the revolutions that transformed classical physics into modern physics. Einstein's theories, beyond explaining many facts which were previously inexplicable and predicting several unanticipated new results, led to many exotic and interesting effects, among which is the possibility of time travel.

The consideration of objects with strong gravitational fields undergoing rapid and accelerated motion, in analogy to the motion of electrical charges, leads to the production of the so-called gravitational waves (which, essentially, are ripples induced in the fabric of the Universe). The detection of gravitational waves would greatly enhance our understanding of how the Universe works.

In his talk, Dr. Imamura will review general ideas of gravitational waves, discuss how we propose to detect gravitational waves, and, finally, present some ideas as to how gravitational waves are produced by astrophysical objects.

Social Gathering: 7 pm.

Meeting Begins: 7:30 pm.

Location: OMSI Auditorium

Mars Magic at the Oregon Star Party

Oregon Star Party returns to the "so dark you wish you lived there" Indian Trail Springs August 28 to 31. This year's focus is on the red planet. If you've had trouble getting the view you'd like to have of Mars you'll enjoy the two 5' x 5' murals printed by Hewlett Packard from Hubble images. One of them features topographical enhancement for a view you've never had of Mars. Other daytime attractions (distractions?) will include Mars Rover Races, swap meet, and vendor displays. Jenny Forrester is returning to provide a great Kids program in a no-adults-allowed tent.

Candace Pratt spent the year reaching out to the larger astronomical community to find speakers. Thanks to her work you'll have several interesting talks to choose from on a wide ranging set of topics. Consider astrology - as a foundation of astronomy? Dave Powell will talk about the connection. If you have a digital camera Dave Haworth's session, Imaging the Moon, Planets and Sun with a Digital Camera, will help you expand your photography. Some sessions will be workshop oriented. You'll be able to brush up on your starhopping navigation, limiting magnitude estimation, and grab a primer on Mars observation techniques. Keynote speakers include Richard Berry on a surprise, or at least TBA, topic; Tom Polakis will

(Continued on page 4)

Deadline for submission of articles, ads, and photos for the Gazette is the 20th of each month.

First Quarter Moon	Full Moon	Last Quarter Moon	New Moon
August 5, 12:27 a.m. PDT	August 11, 9:48 p.m. PDT	August 19, 5:48 p.m. PDT	August 27, 10:26 a.m. PDT

Club Officers			
President	Peter Abrahams	(503) 699-1056	telscope@europa.com
Past President	Candace Pratt	(503) 296-6758	candace@europa.com
VP Members	Doug Huston	(503) 629-8809	geometer31415@aol.com
VP Observing	Scott Turner	(503) 788-6484	kings1@attbi.com
VP Community Affairs	Jeff Henning (until Padriac returns)	503-656-3041	j42h@aol.com
VP, Communications	Matt Brewster	(503) 740-2329	brewster@teleport.com
Treasurer	Ginny Pitts	(360) 737-0569	vepitts@comcast.net
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IDA Liaison	Bob McGown	(503) 244-0078	r_mcgown@msn.com
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Camp Hancock Liaison	Glenn Graham	(503) 579-1141	the.grahams@verizon.net
Subscription Director	Larry Godsey	(503) 675-5217	larrygodsey@att.net
SIG Director	Matt Brewster	(503) 740-2329	brewster@teleport.com
Youth Programs Director	Jenny Forrester	(503) 504-8071	jenny@theforrest.org

President's Message

By
Peter Abrahams
August 2003

Willamette Iron & Steel Corporation, of Portland, was founded in 1865 as 'Willamette Iron Works', and became Willamette Iron and Steel Works circa 1900. (Not to be confused with Oregon Iron & Steel, the first owner of the Willamette meteorite.) W.I.S. built 33 steam locomotives in the 1920s, and a variety of equipment such as fork lifts. Willamette was best known for their many small ships that served the U.S. Navy: patrol boats, minesweepers, submarine chasers, lighters & auxiliaries; built from 1904 through WWII, and on a limited basis in the post war era, when Willamette was mainly a ship repair yard. The business closed in the 1990s. Willamette built, as far as is known, only one telescope, but it was a fantastic instrument, the 84 inch reflector at Kitt Peak National Observatory. The mechanical parts were by Willamette. Overall design was by Aden Meinel, engineering was directed by W.W. Baustian, and Don Loomis was among the opticians who fabricated the glass. The Ritchey Chretien system has an unusual overcorrected parabolic primary and undercorrected hyperbolic secondary. It was

(Continued on page 4)

RCA
Magazine Subscriptions

One of the main services offered to RCA members is subscriptions to Astronomy and Sky & Telescope magazines at a much reduced rate from newsstand prices. Astronomy Magazine is $29 for one year or $55 for two years. Sky & Telescope Magazine is $29.95 for one year for those renewing with 2003 expiration dates. Sky & Telescope Magazine is $32.95 for one year for those renewing with 2004 expiration dates. For more information go to the RCA web site: http://www.rca-omsi.org/siteindex.htm and click on any of the magazine links. Larry Godsey, Subscription Coordinator, will be taking renewals and new subscriptions at the Magazine Table at the General Meetings. Please Note: Allow two months for your subscription to be renewed.

Sky & Telescope Store Discount

RCA members who subscribe to *Sky & Telescope* are entitled to a 10% discount at the *Sky & Telescope* online store at: *http://skyandtelescope.com/shopsky* To get your discount, enter Rose City Astronomers when prompted for your club name during checkout at the *Sky & Telescope* online store.

The "Kids" of Rose City Astronomers

RCA Kids

Children ages 4-12 are welcome to join in fun and educational activities while the grownups attend the monthly general RCA meetings. The kids' meeting takes place in the adjoining cafeteria at OMSI from 7:30 p.m. to 9:00 p.m. If you have any questions, please e-mail Jennifer at jenny@theforrest.org.

The Great Perihelic Opposition of Mars

We will soon be the closest to Mars that we will ever be in our lifetimes. I think about that in personal terms, as in I will never get any closer to the Red Planet than on Wednesday, August 27 at 2:51am PDT. I plan to be at Indian Trail Springs at that moment, with Mars in the center of my eyepiece's field of view, at the highest magnification the seeing will allow. Regardless of what's visible, the moment connects me to the great observers of the past, and to new discoveries about to be made.

It's a largely symbolic point in time in that there will not suddenly be an incredible amount of detail visible on Mars, because it will not be noticeably larger in apparent size than it was a few days before. Mars will be nearly this close again in 2018 and 2035, so this isn't the last time most of us will be nearly this close. But this soon to be here moment in August is the closest Earth has been to Mars since 57,617 BCE. That's amazing, and something worth noting, and perhaps commemorating. I hope to have a bundle of sketches and several pages of notes as a keepsake.

Some opposition statistics:

At closest approach, the distance to Mars will be 34,646,418 kilometers/55,758,006 miles.

Through the intricacies of orbital dynamics, opposition occurs on August 28th, and Mars reaches perihelion – closest to the Sun – on the 30th. Hence, the term "perihelic opposition".

Mars will appear 25.11 arc seconds in diameter at closest approach. It will appear larger than 20 arc seconds from mid-July through the first few days of October.

We will see the Mare Sirenum albedo feature nearly on the center of the disk of Mars at the time of closest approach, with the Tharis plateau, where the 4 largest volcanoes of Mars reside, directly to the north. Solis Lacus will be setting into the night side of the planet.

Just about everyone with a telescope and clear sky will be looking at Mars, and most will be at least somewhat disappointed.

What's that, almost everyone will be disappointed? Why?

Even at it's largest apparent size, Mars will appear about the same diameter as a smallish crater on the Moon, or a comparison I like, a bit larger than the globe of Saturn. It's a small target and requires high magnification for small details to be seen.

Many of the interesting surface features have relatively low contrast.

Seeing these low contrast features takes time, patience and experience.

Clear skies, steady seeing, and a quality telescope are needed.

There are some things out of our control, like the weather, but for those that are truly interested, the chances for a satisfying viewing experience can be dramatically improved.

Practice observing Mars now. Although that means staying up late or getting up at a painfully early hour, the reward is a practiced eye. Not to mention increasing one's chances for some potentially great views.

Look at Mars for at least 15 minutes at a time. The longer the better, especially when the seeing is variable. The people who see the most are those who look the longest – finding the few seconds of steady seeing amongst all the blurry minutes is a treasure worth working for. This is especially relevant this opposition because Mars will be no higher that declination – 15 degrees at its closest approach. That's an elevation of about 30 degrees above our horizon.

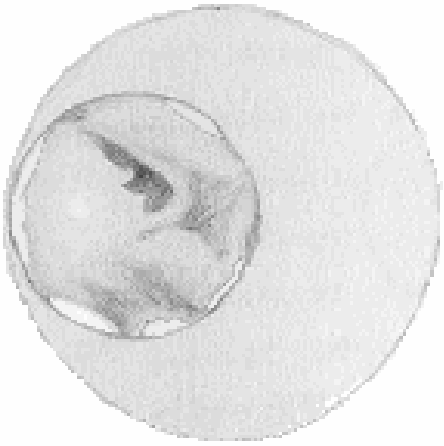
Practice sketching. Don't worry about what your sketch looks like, just sketch. The more you do it, the better your sketches will become, and the more you will see. Cross my heart, this is really true.

Pile on the magnification. If you're not used to using powers above 300x, start now. If you don't have an eyepiece that gives a magnification this high, consider getting a Barlow. If your telescope won't support magnifications this high, then do the best you can.

Color filters can work wonders at times. Having red, yellow and green filters can help bring out various surface details, and a blue filter will enhance cloud features.

Oh, and did I mention to start observing Mars now, making sketches, and looking for at least 15 minutes at time? Do this consistently for the next few months and you just might get that great view.

At best, the magically named features of Mars will remain elusive. A quick, 30-second look will not impress the casual observer – it will appear too small, and not sharp enough. Mars gives up his wonders grudgingly, and only to those who have prepared and paid their dues. Fortunately, they are affordable to the sufficiently determined.



This sketch shows Mars in great seeing at 608x, on January 10, 1993 when it appeared 14.8 arc seconds across. The larger circle in the background shows a relative disk appearing 25 arc seconds across. Oh yeah!

Mars Magic at OSP *(Continued from page 1)*

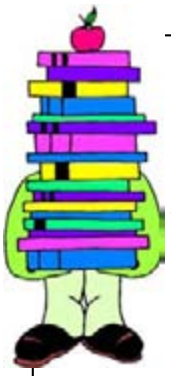
cover “Gaining Astronomical Perspective with Desktop Planetarium Software”; and Saturday night Dr. Timothy J. Parker explores a red planet topic with “Mars Landing Site Selection Process at JPL”.

If you haven’t pre-registered you’ll need to do so on site. If you haven’t volunteered to help OSP operate you can still do so at the RCA meeting. The OSP only functions through the efforts of people willing to contribute a couple of hours to help with the nitty gritty. All volunteers get desert tempering shade, cool water, and snacks.

Volunteers also are entered in a special door prize drawing.

Help yourself and the community out by volunteering.

Michael Rasmussen



RCA LIBRARY

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Observations from Mars
Transit of the Earth - 2084

By Bob McGown

There have been six transits of Venus observed across the face of the Sun, but the 2084 transit will be the first observation of an Earth transit by human eyes. The last transit of Earth from Mars took place 100 years ago. This transit will be shared with all people on Earth who are watching the live CCD broadcast, just as they observed the first steps of Man on the Moon. Witnessing the images of our clockwork solar system is a once in a lifetime experience. What would it mean to humanity to heighten the adventure of solar system exploration?

The Arthur C. Clarke science-fiction story "Transit of Earth" about a doomed astronaut witnessing the 1984 transit event

(Continued on page 6)

Presidents Message *(continued from page 2)*

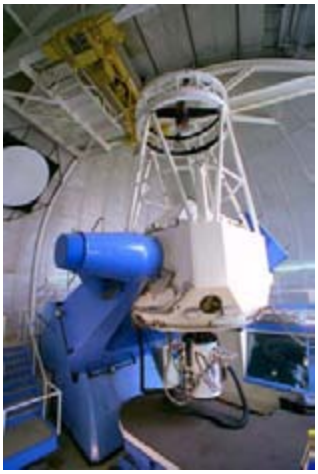
unsure whether this new design would be corrected to the full diameter of the primary, and early documentation refers to the ‘80 inch’ telescope - they were concerned that the outer four inches would need to be masked.

Any readers with further details about telescopes by W.I.S. are asked to communicate their knowledge.

Peter Abrahams

Construction of the Kitt Peak National Observatory's 2.1-meter telescope, dating from 1960.

Courtesy: NOAO/AURA/NSF



The 2.1-meter (84-inch) telescope at the Kitt Peak National Observatory, near Tucson, Arizona. The white cylinder at the bottom of the telescope is Phoenix, a new, world-class infrared spectrograph.

Courtesy: NOAO/AURA/NSF

An observing tour at Lick Observatory

By Murray & McGown

The annual Lick Observatory Music of the Spheres is a special series in the summer with unique musical offerings, a guest scientist lecture and a peek through the Alvan Clark 36" refractor. For us, this year was different than the past two years, as we were attending as guest 'VIPs' with dinner included and special tour of the 120" telescope.

This warm but windy Friday night featured the music of Ancient Future, a three-piece fusion group with distinct eastern influence but blending many other styles. They were mesmerizing, playing from their most recent CD, Planet Passion. Later that evening, Dr. Steve Vogt, from UC, Santa Cruz, gave a most fascinating lecture on extra-solar planets. Steve is one of the world's best spectrometer designers. He is currently working on a special telescope to be constructed at Lick Observatory, nicknamed the 'APF' or Automated Planet Finder. This facility will consist of a 2.5-meter class automated telescope and enclosure, and a high-resolution spectrograph. It will permit detection of low-mass, Earth-like planets by targeting nearby stars and observing them every night for months. Culminating our evening was the chance to observe on the grand old Alvan Clark 36" telescope.

We began our adventure driving up the windy road to Lick Observatory on Mt. Hamilton about 5 p.m. The view was spectacular and we thought it looked promising for the later night's observing. Being the only VIP's that night turned out to be very special as we were taken to the astronomer's dining hall for dinner. There we shared a wonderful pasta feast with Dr. Steve Vogt, Remington Stone, Debra Fisher and other control room engineers. Over dinner and wine we discussed Debra's confirmation of a third planet around the star 47 Ursa Majoras. Debra is a research astronomer, from University of California, Berkeley, who is currently working on the Planet Search Project with Geoff Marcy, Paul Butler and Steve Vogt. She uses the telescopes at Lick to search for radial velocity variations in 400 nearby stars.

After dinner we hiked to the ridge around the main observatory, passing the Vulcan telescope dome. This scope is used for finding targets for the Terrestrial Planet Finder. We finally reached the huge dome that houses the 120". Rem Stone gave us an elaborate behind the scenes tour of this most impressive three-meter telescope.

Chair in cage formerly used to adjust prime focus.

From the balcony he described the components of the 120' scope, pointing them out with a brilliant green laser pen. There were three cages, one where the operator of the telescope would sit on a chair, enclosed by wire and operate the telescope at prime focus. These cages are no longer used because all the operations can be done remotely. The 3-meter telescope has a 12' diameter laser beam that casts an image 70 kilometers up into the atmosphere to the dendrites layer where micrometeorites have left dusty material. It is on this surface that the adaptive optics are tuned.

Rem, Steve and Bob in front of the 120" deep sky camera.

We then went down to the first floor of the 120" building to see the laser projecting from the Cude cage below the telescope and then into the Cude cage itself. The deep sky camera and the truss framework of the 120" was laden with instrumentation.

Continued on page 9...

OMSI Star Party August 12 at Rooster

ANNUAL METEOR SHOWER EXPECTED TO ATTRACT HUNDREDS!

OMSI Star Party Will Help Viewers See Up To 60 Meteors Per Minute.

One of the most famous and impressive meteor showers of the year will occur in mid-August, and the Oregon Museum of Science and Industry is preparing to help sky gazers enjoy the celestial phenomena. The Perseid Meteor Shower, an annual favorite for summer vacationers, will peak Tuesday, August 12. OMSI, the Rose City Astronomers, Vancouver Sidewalk Astronomers and Oregon Parks and Recreation will celebrate the event with a Perseid Meteor Shower Star Party beginning at 9 p.m. that evening at Rooster Rock State Park.

The meteor shower occurs when the earth passes through the densest part of the Perseid meteoroid stream every year around August 11th or 12th. The stream is the debris of comet Swift-Tuttle, which circles the sun approximately every 130 years. Arriving from the direction of the constellation Perseus, meteors - tiny bits of rock and dust - hit our upper atmosphere at speeds of up to 60 miles per second, vaporizing and creating a brief trail of ionized, glowing air. This strong annual shower can produce 20 to 60 meteors a minute, though because of light pollution and other factors, many are too faint to be seen by the naked eye.

This year the full moon will interfere with the prime meteor-watching hours throughout the evening, however, viewers can expect to count on at least one, bright, long-lasting, colorful streak per minute, along with several others of different intensity. Jim Todd, OMSI Murdock Planetarium manager, says that occasional meteors will streak across the skies for several nights before and after the peak day. "In fact, you may see a lone Perseid or two on any night in early and mid-August," he said. "The extreme limits of the shower can extend from the end of July to the third week of August, though an occasional one may be seen almost anytime during the month of August," he added.

OMSI and the astronomy clubs sponsoring the Star Party will have telescopes for visitors to look through, and Todd will present informal talks about the meteor shower, constellations and the summer sky in general. Mars will also be of interests to viewers. The Red Planet is getting progressively closer to Earth with each passing night, and consequently it will slowly appear to grow larger and brighter. By late August 2003, when it will be about 191 million miles closer, the reddish point of light in our night sky will appear more than six times larger and shine some 85 times brighter than it appears now. On August 27, 2003, Mars will be within 34,646,418 miles of Earth. This will be the closest that Mars has come to our planet in nearly 60,000 years.

The event is free to the public. Rooster Rock State Park is located 22 miles east of Portland on I-84 (east of Sandy River) at exit 25. Though the event is free, there is a parking charge of $3 per vehicle or $1.50 for OMSI and RCA members. For possible cancellation because of inclement weather, call 503-797-4610 after 3 p.m.

News Flash!

As this was going to press an OMSI Mars Party was Announced! August 23 at OMSI. http://www.omsi.edu/visit/planetarium/starparties.cfm for more info.

Observations from Mars *(Continued from page 4)*

inspired the following scenario where we observe a transit that will take place in 2084 as predicted:

> The temperature of the Earth has increased by about 8 degrees F causing worldwide problems. In four generations we have seen the Earth's biosphere drastically transformed by global warming. The effect may be the global warming caused by greenhouse gases in conjunction with a natural cyclical warming by the Sun. Besides the global ecology efforts, the situation has created an upwelling of support for the colonization efforts. Colonization of Mars has become a priority for the human species to survive and it could be that Mars would be transformed into a home for human life beyond the Earth.
>
> As humans set foot on Mars for colonization it will be a vindication of the vision and perseverance of all those dedicated men and women of National Space Society, the Mars Instrument & Science Team and the Mars Society and other scientists, who so stubbornly persisted to follow their dream.
>
> When the first samples came back in 2031, using genome technology, our astrobiologists were able to determine that the complex amino acids and bacteria discovered were of a completely different structure than those found on Earth. Subsequent probes found extremeophiles living in the ice and rock hundreds of meters below the surface in grabens and confirmed that there was indeed life on Mars.

(Continued on page 9)

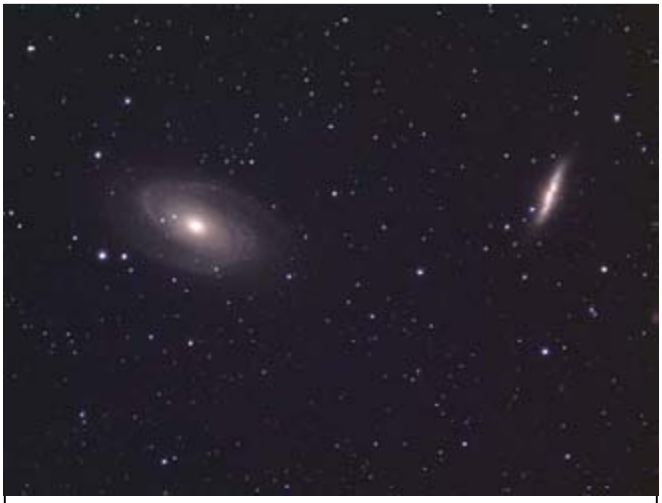
RCA Photo Gallery

Barnard 33 (The Horsehead Nebula). This well known nebula is a finger of dust reaching up out of a long bar of dust. We can see it because it is silhouetted against a wall of glowing gas. This image was obtained on Feb 5th and 6th 2003 with an ST-9XE camera on a Celestron C-11 on a G-11/Gemini mount.

Dave Sandage

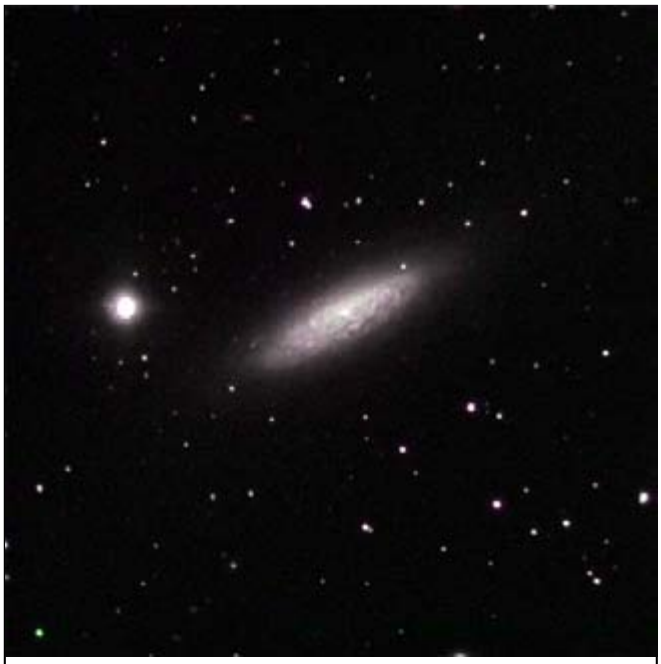
NGC 6992 (The Veil Nebula - Eastern section). This is the eastern section of a much larger supernova remnant in Cygnus. This image was taken on 6/1/03 at Camp Hancock in central Oregon. Equipment used was an SBIG ST-2000XM camera and CFW-8A with a Televue Genesis SDF refractor on a William Optics GT-ONE mount.

Dave Sandage



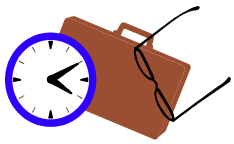
M81 and M82. These 2 bright galaxies in Ursa Major are favorite targets for telescopes of all sizes. A recent interaction between these 2 galaxies has left M82 (on the right) with a contorted shape and increased star formation. Also clearly evident is a fair amount of dust. This LRGB image was taken on 5/31/03 at Camp Hancock in central Oregon using an SBIG ST-2000XM camera and CFW-8A with a Televue Genesis SDF refractor on a William Optics GT-ONE mount.

Dave Sandage



NGC 6503. Spiral galaxy in Draco. Image taken on 6/27/03 and 7/2/03 using a Celestron C-11 on a G-11/Gemini mount with an ST-9XE. Guiding was done with an AO7 tracking at 6Hz.

Dave Sandage



BOARD MEETING MINUTES

(EDITED)
July 7th, 2003
Ron Forrester

OMSI Classroom 1

Present: Ron Forrester, Larry Deal, Jeff Henning, Matt Brewster, Sameer Ruiwale, Peter Abrahams, Jan Keiski, Dale Fenske, Ginny Pitts, Scott Turner

Treasurer – Ginny: $15,408 cash balance.

Programming – Matt: This month is on nearby star observing by Jerry Blackwell. Jim Imamura, Director of the Institute of Theoretical Science at U of O, talking on Gravity waves.

Membership – Doug: Nominal

Star Parties – Scott: Lunar OMSI Star party Saturday the 12th.

Community Affairs - Padric: Nominal

Sales – Sameer: Nominal

New Members – Carol: Nominal

Light Pollution - Bob: Nominal

AL - Dale: Need the new membership database to pay the bill. Bob McGown is going to Nashville to represent the NW AL.

SIG's - Matt: Nominal

Magazine – Larry G.: Nominal

Editor – Larry : Printer just got data for July newsletter. For printing and mailing costs, if we do 330 we spend our budget. Below 200 we lose bulk mailing rate. Cost of 1st class mailing is not a huge factor if we lose bulk mailing rate. Suggestion for a plain text gazette which can be emailed.

Library - Jan: Nominal

YRCA - Ron: Nominal

Webmaster - Dareth: Nominal

OMSI - Peter: Nominal

Telescope Library - Jeff: Solar scope is ready to go, and Larry G. did a fantastic instruction book for the scope. Idea of instead of checking out the scope for a month, check it out on an event basis for the length of the event. Scope must be checked out and used by a qualified club member.

Copying - Debrah: Nominal

Phone Line: Scott Turner for July, Dale for August

Peter will not be present for the August board meeting. Scott is volunteered to cover the meeting.

Ron Forrester will be resigning the club Secretary position effective end of 2003. He will be continuing on as Media Liaison.

We will be continuing our current liability insurance at $492 for this year.

CLASSIFIED ADS

Run your non-commercial astronomy related classified ad in the monthly Gazette. Rates are reasonable (free!)

For Sale:
Meade 4" Schmidt-Cassegrain Telescope, Model 2040
Includes all original acessories:

- metal carry case
- instruction manual
- electric motor drive (w/ power cord)
- eyepieces: 9 and 25 mm
- equatorial wedge

Extras:

- 6 mm eyepiece
- Filters: Skyglow Ultrablock, #80A Blue, #58 Green, #25 Red, #15 Yellow
- Tele-extender and T-Adapter
- heavy-duty photo tripod

Asking price: $275
Contact info:
Call Pat @ 503-808-6550

SPECIAL INTEREST GROUPS

ASTROPHYSICS / COSMOLOGY
Date/Time: August 21, 7 PM.
Speaker/Topic: Paul Schmidt "Solar Sail Technology"
Place: Linus Pauling Complex, 3945 S.E. Hawthorne St., Portland.
Contact: Bob McGown (503-244-0078)
or Doug Huston (503-629-8809) for more information.

TELESCOPE MAKING WORKSHOP
Date/Time: August 16, 10 AM—3 PM
Place: Technical Marine Services Inc, 6040 N. Cutter Circle, Swan Island.
Contact: Jim Girard argojg@comcast.net for more information.

ASTRO IMAGING SIG
This special interest group is intended for anyone interested in learning or sharing information and ideas about FILM and DIGITAL photography as it applies to aesthetic astronomy picture taking. August Meeting at OSP, Date and Time TBA.
For information please contact:
Mike Cole @ 360-604-7865 mrcole@earthlink.net or,
Larry Godsey @ 503-675-5217 larrygodsey@att.net

ASTROMETRY, PHOTOMETRY, & SPECTROSCOPY SIG
No meetings this summer, the next meeting is scheduled for Wednesday, September 17th at 6:30pm

Please Note: SIG Meetings are subject to change without notice. Please confirm with the contacts listed.

An observing tour at Lick Observatory *Continued from page 5.*

In the lowest area of the dome building we saw a remarkable old cyclotron, painted bright red, originally from Livermore Labs, now used to clean the mirror. Continuing on our journey, we ventured out on the catwalk of the 120" dome, about 50 feet from the ground.

What a view! Steve told the story of the venerable British astronomer Wells who, when asked by someone on the ground 'how did you get up?' answered 'it took twenty years of bloody hard work to get where I am!" While we were walking around the dome on the catwalk, Debra came rushing up to find Rem. There had been a computer crash! Luckily one of the engineers had fixed it by the time we arrived at the control room of the 120". In the control room are many computers, each with its specific task, some studying light curves to detect extra solar planets.

Steve, Dareth & Rem on the catwalk

It was a wonderful evening, with some amateur scopes set up in the back patio near the 36" dome for additional observing. We saw M92 and M13 through the Alvan Clark, although the observing conditions were less than ideal. Rem opened and closed the dome many times to keep dew off the lens.

Winding our way back down the mountain about midnight, we spotted the legendary wild pig – "Neils Bohr"! It was a very motley boar with large tusks. Dareth tried to get him to pose for a picture but he was not cooperative and even charged the car! We arrived back on the valley floor, tired but exhilarated from such a heady experience of fine music, touring the 3-meter scope, observing on the Alvan Clark and sharing the evening with world-class astronomers.

Observations from Mars *(Continued from page 6)*

This stimulated the International colonization movement, which has resulted in the current situation of several groups of scientists living in lavatube cave shelters found from observations of infrared orbiting telescopes.

From the lavatube ice caves on Mars, the early well-used habitats near the front entrance still bear the logo of the original MIST builders. Most scientists/colonists live underground, but all use the old habitats like the models developed for the Mars Desert Research Stations, built in the late 1990's. The surface habitats are similar to the Mars Excursion Module, originally designed by the Mars Society.

Our robotic C-14 solar telescope, like one used 80 years ago on the ISS, gives us an eerie view of earth and the glow of the sun through the limb of the atmosphere. The famous black drop effect is evident as the Earth moves into the disk of the sun.

From this distant Martian outpost, we can see the silhouette of the Earth across the solar fusion furnace. The Moon also has become outlined as a glowing disk approximately 6 hours after the Earth entered the Sun's coronal limb. The entire transit of the Earth will last up to 9 1/2 hours.

Carl Sagin proposed that the Voyager spacecraft look back from deep space to the 'pale blue dot', the Earth. In the future our deep space probes should also take advantage of transits of the giant gas planets as well as Mars and Earth. Imagine the spectacular vision of Jupiter entering the disk of the Sun, obscuring almost one-fifth of its diameter, like an artist's fantasy rendition of an extra-solar planet. To make the event even more fantastic, the Galilean moons of Jupiter would follow the giant planet and rotate in their orbits against the solar disk. Another type of transit sought by amateur astronomers is the anti-transit, also known as occultation, in which the planet appears to disappear behind the Sun's corona. An observation from a spacecraft in the Kuiper belt could have its orbital elements engineered to catch a transit of Saturn or Mars. Manned or robotic missions could take advantage of these rare astronomical events giving a Newtonian-like perspective to the solar system.

August 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

August 2003

Aug 4	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
Aug 12	Tues.	Perseid Meteor Watch!	Rooster Rock S.P.	
Aug 14-17	Th-Su	Mars Convention	Eugene Hilton Hotel	
Aug 16	Sat	Telescope Making Workshop	Swan Island	10 AM-3 PM
Aug 18	**Mon.**	**General Meeting**	**OMSI Auditorium**	**7:30 PM**
Aug 21	Thu.	Astrophysics/Cosmology SIG	Linus Pauling House	7:00 PM
Aug 23	Sat	Mars Star Party!	OMSI	
Aug 28-31	Th-Su	Oregon Star Party!	Indian Trail Springs	

September 2003

Sep 8	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
Sep 15	**Mon.**	**General Meeting**	**OMSI Auditorium**	**7:30 PM**
Sep 17	Wed	APS SIG	Seans Astronomy	7:30 PM
Sep 18	Thu.	Astrophysics/Cosmology SIG	Linus Pauling House	7:00 PM

The RCA General Meeting falls on the third Monday of each month. We usually meet in the Auditorium at OMSI, next to the Murdock Planetarium. Occasionally the meeting is held in Murdock Planetarium. Check here each month for details, or look us up at the RCA web site (http://www.rca-omsi.org).

RCA CLUB INFORMATION
Message Line: (503) 255-2016
Web Site: http://www.rca-omsi.org

Oregon Museum of Science and Industry
Rose City Astronomers
1945 SE Water Avenue
Portland, Oregon 97214-3354

The
Rosette Gazette

Volume 15, Issue 9 | Newsletter of the Rose City Astronomers | September, 2003

In This Issue:

Moon photos below courtesy David Haworth

RCA General Meeting

Monday, September 15th.

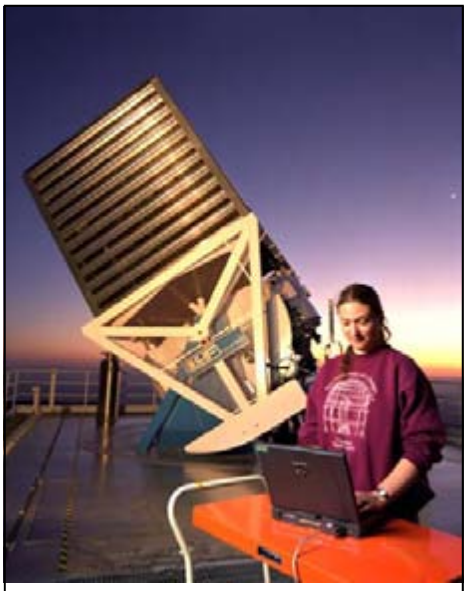
The Sloan Digital Sky Survey:
The View From the Trenches
By: Constance Rockosi

The Sloan Digital Sky Survey, the most ambitious astronomical survey project ever undertaken, will systematically map one-quarter of the entire sky, producing a detailed image of it and determining the positions and absolute brightness of more than 100 million celestial objects. It will also measure the distance to a million of the nearest galaxies, giving us a three-dimensional picture of the universe through a volume one hundred times larger than that explored to date. The Sky Survey will also record the distances to 100,000 quasars, the most distant objects known, giving us an unprecedented hint at the distribution of matter to the edge of the visible universe.

By sensitively observing such a large fraction of the sky, the Sky Survey will have a significant impact on astronomical studies as diverse as the large-scale structure of the universe, the origin and evolution of galaxies, the relation between dark and luminous matter, and the structure of our own Milky Way. It will represent a new reference point, a field guide to the universe, which will be used by scientists for decades to come.

Having worked on the construction of SDSS while at the University of Chicago, Dr. Rockosi will relate some of the trials and tribulations of commissioning an entire observing system of this scope.

Dr. Rockosi majored in electrical engineering at Princeton, received her PhD at the University of Chicago, where she continued to work on building and then commissioning the SDSS. Presently, Connie is a PostDoc at the University of Washington.



Constance Rockosi, a member of the multi-institutional team that built the digital scanning camera for the Sloan Digital Sky Survey, checks the status of the instrument during its first on-the-sky trial runs in May 1998. (*Courtesy of Fermilab Visual Media Services and the SDSS public archive http://www.sdss.org/*)

Social Gathering: 7 pm.

Meeting Begins: 7:30 pm.

Location: OMSI Auditorium

Deadline for submission of articles, ads, and photos for the Gazette is the 20th of each month.

First Quarter Moon	Full Moon	Last Quarter Moon	New Moon
September 3, 5:34 a.m. PDT	September 10, 9:36 a.m. PDT	September 18, 12:03 p.m. PDT	September 25, 8:09 p.m. PDT

Club Officers			
President	Peter Abrahams	(503) 699-1056	telscope@europa.com
Past President	Candace Pratt	(503) 296-6758	candace@europa.com
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VP Observing	Scott Turner	(503) 788-6484	kings1@attbi.com
VP Community Affairs	Jeff Henning (until Padriac returns)	503-656-3041	j42h@aol.com
VP, Communications	Matt Brewster	(503) 740-2329	brewster@teleport.com
Treasurer	Ginny Pitts	(360) 737-0569	vepitts@comcast.net
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OSP Liaison	Dareth Murray	(503) 656-1293	dareth@cablerocket.com
Camp Hancock Liaison	Glenn Graham	(503) 579-1141	the.grahams@verizon.net
Subscription Director	Larry Godsey	(503) 675-5217	larrygodsey@att.net
SIG Director	Matt Brewster	(503) 740-2329	brewster@teleport.com
Youth Programs Director	Jenny Forrester	(503) 504-8071	jenny@theforrest.org

President's Message

By
Peter Abrahams
September 2003

Most of the time, the world does not take much notice of amateur astronomers. This has the good effect of making our lives easier. But it has negative effects as well: it is difficult to get young people interested, and it is almost impossible to persuade bureaucrats of the need to control light pollution. Once in a while, we find ourselves receiving a lot of attention, from the public & the media, and now is one of those times. We do like to hear from would-be astronomers, interested kids, and other enthusiasts. We even like to hear from the media, although they do have the habit of phoning every board member, leaving a message to please reply, until they find a board member who answers the phone. An opposition of Mars is second only to a bright comet for increasing the interest of the public; and these days since city dwellers can't see any comets, probably Mars is #1. So, we can enjoy this enthusiasm and hope it leads to new members (though we're kind of bursting at the seams right now); hope it leads to more astronomy education for kids; hope it causes better control of light pollution; and brings more telescopes to more people. I especially hope you get a good look at Mars: blazing away to your naked (or be-spectacled) eye, through a scope, or in an image taken with a camera. I'm equally happy doing any of these, though I am particularly amazed by the amateur images I'm seeing on the internet: for example:
http://homepage3.nifty.com/~cmomk/2003/image03.html
--Peter Abrahams

RCA
Magazine Subscriptions

One of the main services offered to RCA members is subscriptions to Astronomy and Sky & Telescope magazines at a much reduced rate from newsstand prices. Astronomy Magazine is $29 for one year or $55 for two years. Sky & Telescope Magazine is $29.95 for one year for those renewing with 2003 expiration dates. Sky & Telescope Magazine is $32.95 for one year for those renewing with 2004 expiration dates. For more information go to the RCA web site:
http://www.rca-omsi.org/siteindex.htm
and click on any of the magazine links. Larry Godsey, Subscription Coordinator, will be taking renewals and new subscriptions at the Magazine Table at the General Meetings. Please Note: Allow two months for your subscription to be renewed.

Sky & Telescope Store Discount

RCA members who subscribe to *Sky & Telescope* are entitled to a 10% discount at the *Sky & Telescope* online store at:
http://skyandtelescope.com/shopsky
To get your discount, enter Rose City Astronomers when prompted for your club name during checkout at the *Sky & Telescope* online store.

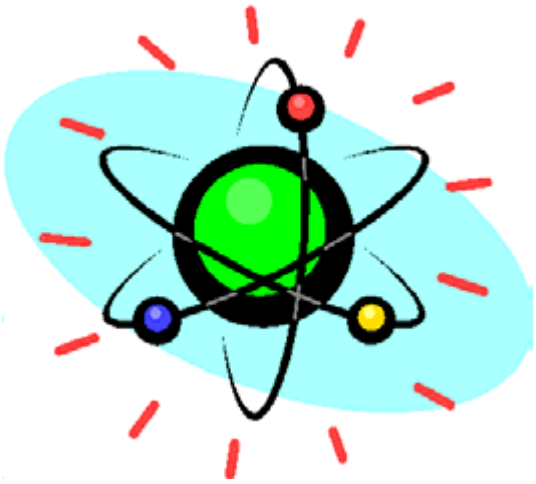
The "Kids" of Rose City Astronomers

RCA Kids

Children ages 4-12 are welcome to join in fun and educational activities while the grownups attend the monthly general RCA meetings. The kids' meeting takes place in the adjoining cafeteria at OMSI from 7:30 p.m. to 9:00 p.m. If you have any questions, please e-mail Jennifer at jenny@theforrest.org.

Particle Zoo

By Bob McGown



Bosons, electrons, super symmetry
Particle physics is all right with me
Studying particles you cannot see
I've seen cloud chambers that way

Now neutrinos come from the Sun
At light speed pass through everyone
Their mystery is still undone
Complexity got in the way

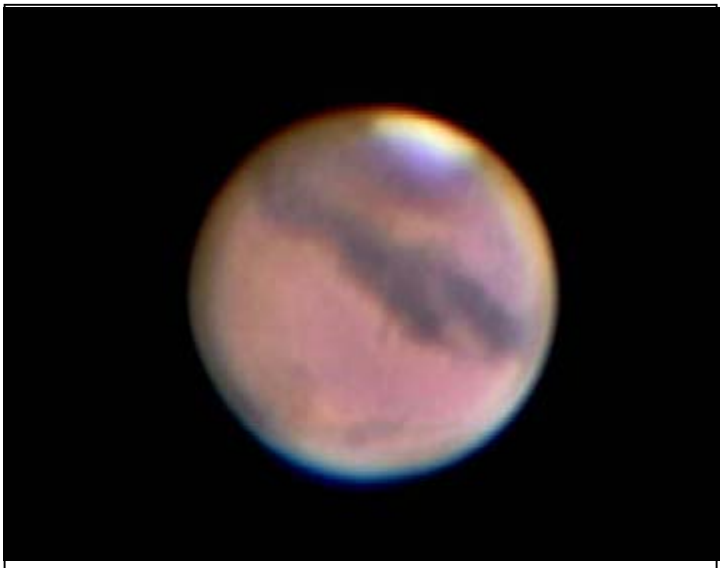
I've studied quarks, all their spins now
Up and down and still some how
Through quarks peculiar ways, et all
Should I believe in quarks at all?

Muons and high energy lasers
Particle collisions, a way to measure
Experiment and question all you know
Uncertainty got in the way

The knowledge you can never know
An eight fold path, your way to go
If the truth gives them a show
Just give the truth away

I've seen particles all spins now
Truth, beauty and still some how
The wave duality reveals
The quantum world within, so small.

This is a filk sung to the tune of "Both Sides Now" by Joni Mitchell. It reflects the standard model of physics and the search for unknown particles.



Taken from my backyard in Beaverton at 3:19am, Sunday August 17th. I used a 12" Meade LX200 SCT with 3x barlow resulting in a focal length of ~9000mm at ~f/30. The imager was a Logitch Pro3000 webcam that was modified so it could be used in the eyepiece holder of the scope. Around 320 frames were captured, about 20 of which were merged to produce the final image
...Glenn Graham

Born with a Bang

By Bob McGown

Primordial mass a movin
Hot gasses burning
Thermo dynamic action
Space time coming our way
Singularity make it happen
Curvature and cosmic chase
Quarks rushing out at this time
And expanding into space

Transparent sky and lighting
Great radiant under
Neutrino racing light speed
Arrows of time a wonder
The cosmos will make it happen
Star light through their embrace
Galaxies form at one time
And explode into space

Take the cosmic child
a Universe born, hot and wild
Galaxies forever fly
Will they ever die?

Born with a bang
Born with a bang

* The Great radiant is the stylistic name for the Last Scattering Surface in Big Bang nomenclature. This song is sung to the tune of "Born to be Wild" by Mars Bonfire

Transit of Venus Cruise.

Radisson Seven Seas Cruise Line is offering a special sailing on the "Radisson Diamond" in June 2004 entitled, "Spotlight on the Stars". This cruise will depart Istanbul, Turkey on June 7 and will sail for 8 days in the Aegean, visiting various ports of call (Istanbul, Dikili, Kusadasi, Rhodes, Santorini, Mykonos, Nauplion, Athens), ending in Piraeus (Athens), Greece on June 14. On June 8, the ship will dock near the island of Delos, which has been determined to be the ideal spot to witness the Transit of Venus. Passengers will have a once-in-a-lifetime opportunity to witness this amazing event, as the image of Venus slowly progresses across the Sun. In addition to witnessing this event, passengers will enjoy on-board lectures provided by Robert Naeye, Editor of Mercury Magazine, and Dr. Seth Shostak from the SETI Institute. Astronomers will enjoy meeting and interacting with other passengers who share similar interests. Prices start at $3928.00 per person.

For more information contact:

Tina Pisenti
Cruise Holidays of Portland
(503)641-5225
(866)786-7447
tina@cruzholidays.com

RCA Library

The Rose City Astronomers maintains a comprehensive club library of astronomy related articles, books, CD-ROMs and videos. These items can be borrowed by members through checkout at the general meetings for a period of one month with renewals available by phone or e-mail to the club library director,
Jan Keiski (jikeiski@juno.com)
(503) 293-3281.
Visit the RCA library web page at:
http://www.rca-omsi.org/library.htm

Classified Ads

Run your non-commercial astronomy related classified ad in the monthly Gazette. Rates are reasonable (free!)

For Sale:
Meade ETX70-AT Perfect Condition 25 mm & 10 mm eyepieces, 2x Barlow, Dew Cover, External Power Supply, Hard Carry Case, Tripod, Flexible Focus Shaft, Software $250.00.
Mark 503-590-7360

For Sale:
Like new Orion SkyView 4.5" Equatorial Refractor Telescope, Only used three times! A precision astronomical instrument, ideal for amateur astronomy. It has many features normally available only on more expensive telescopes. Includes two lenses, tri-pod, counter weights, and instruction manual. I'll even throw in a complete book about astronomy!
$250.00 OBO
Chris 360-910-3477

Welcome New Members!

July 2003

Mitch Bodart
Joseph Brollerton
Ted Bruton
Mike Clapp
Thomas Guin
Gary Hitt
David Nemo
Rudy Venkatesan

August 2003

Charles Fichter
Kelly Grant
J. Honeycutt
Nolan Nichols
Darius Roberson
David Snyder

Getting ready for the August 12 Perseid Invasion!

Photos by
Staff Photographer **Jan Keiski**

EQUINOX MARKS BEGINNING OF AUTUMN

OMSI TO CELEBRATE WITH STAR PARTY!

Fall officially begins with the autumnal equinox, which takes place on Tuesday, September 23 at 3:47 a.m. PST, and the Oregon Museum of Science and Industry, Rose City Astronomers (RCA) and Vancouver Sidewalk Astronomers (VSA) will celebrate with a Star Party.

Visitors are invited to attend the free event on Saturday evening, September 20th, and look at the autumn sky through a variety of telescopes owned by RCA and VSA members.

OMSI Murdock Planetarium Manager Jim Todd will help visitors find stars, nebula, Mars, star clusters and other celestial objects, and will give informal talks.

The event is free and open to the public, and takes place in OMSI's east parking lot at 1945 SE Water Avenue, starting at 7:30 p.m. Potential star gazers are encouraged to call (503) 797-4610 on September 20 after 3:00 p.m. for possible cancellation due to inclement weather.

Autumnal Equinox Facts:

September 23 is the autumnal equinox, the day on which both the north and south poles of the earth are equal distances from the sun (93.3 million miles). As seen from Portland, the noon sun will reach its mid-point in the sky at 45 degrees from the southern horizon. The equinox occurs exactly when the noon sun crosses the terrestrial equator going from the northern hemisphere into the southern hemisphere.

The nearly 12 hours each of daylight and darkness actually occurs a few days after the autumnal equinox. From September 24 until March 19 the nights are longer than the days.

This is also the day that the sun sets at the North Pole, with a twilight sky that will not show the sun. After the 23rd, the sun will remain below the horizon for the next 179 days.

The word "equinox" is defined as transition between the solstices.

On the day of the equinox, the sun will rise directly from the east, will sit directly above the south at noon, and set directly west.

Jim Todd

OMSI Fall Lecture Series

Cosmonaut Yuri Vladimirovich Usachev and Dr. Alexandre Martynov, Head of Foreign Relations for Administration of Korolev
Friday, September 26 - 7:00-9:00pm OMSI Auditorium
Tickets $10 for adults, $8 for youth (3-13)/seniors (63+)

Learn about MIR and the Russian Space Agency, current collaborations with the U.S., and the personal experiences of Cosmonaut Usachev as the Commander of Expedition 2 of the International Space Station, including home movies taken during Expedition 2. Usachev has logged over 553 days in space. Dr. Martynov worked for the Russian Mission Control Center from 1968 to 1992 and designed re-entry modules and controlled their flights to provide soft landing on the Earth, Mars, Venus, and other planets of the solar system. There will be a 20 minute Q&A and a meet & greet by the scientists after the lecture.

Watch OMSI's website at www.omsi.edu for upcoming details about an astrobiology lecture tentatively scheduled for Friday, October 10.

Jim Todd

An Astronomical Journey to the South

By Robert McGown and Dareth Murray

The astronomical journey began with the Astronomical League 2003 conference in Nashville, Tennessee. As part of the conference we enjoyed a excursion to see the 24”reflecting telescope and astronomical observatory that Carl Seyfert built. Dyer Observatory, operated by Vanderbilt University, has a unique library and collection of astronomical instruments used by E.E. Barnard at the time he discovered the 5th moon of Jupiter Almathea in 1892. Dareth Murray and I attended AL board meeting where many other organizations were represented including The Astronomical Society of the Pacific, Association of Lunar and Planetary Observers, and many astro clubs and observatories through the world.

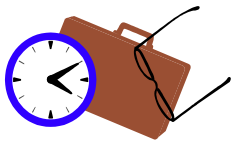
(Continued on page 9)

RCA Photo Gallery

The Network Nebula (eastern portion of Veil, NGC 6992) CCD image taken with 6 inch Takahashi refractor, Six panel Mosaic Taken at Table Mountain Star Party on two consecutive nights
...Michael Cole

M92 a globular cluster taken 05/30/03 from my backyard in Lake Oswego. The telescope is an Astro-Physics 130MM F6, with an AP Field Flattener, and an SBIG ST10 CCD camera. Image was acquired and calibrated in Maxim, enhanced in Photoshop
...Terry Johnson

NGC4565 a galaxy taken on 070303 from my backyard in Lake Oswego. The telescope is an Astro-Physics 130MM F6, with an AP Field Flattener, and an SBIG ST10 CCD camaera. Image was acquired and calibrated in Maxim, enhanced in Photoshop.
...Terry Johnson



BOARD MEETING MINUTES

(EDITED)
August 4, 2003
Ron Forrester

Present: Ron Forrester, Doug Huston, Larry Godsey, Jeff Henning, Dareth Murry, Sameer Ruiwale, Bob McGown, Debra Hirshman, Dale Fenske, Jan Keiski

Treasurer – Ginny: Nominal

Programming – Matt: September is on Sloan Digital Sky Survey, October is Greg Bothun on Accelerating exapansion of the Universe.

Membership – Doug: 417 member families

Star Parties – Scott: Nominal

Community Affairs - Padric: Got a call from the Columbian regarding the Rooster Rock park persieds party.

Sales – Sameer: July a slow month at about $100. Inventory is being replenished. Finished beginning of year inventory.

New Members – Carol: Nominal

Light Pollution - Bob: Put IDA brochures in all the OSP and Mars Society conference packets, 500 in all.

AL - Dale: Nominal

SIG's - Matt: Nominal. Paul Schmidt Solar sails at this months Cosomology meeting.

Magazine - Larry: Nominal

Editor - Larry: Nominal

Library - Jan: Automated checkout system is working very well (thanks to Jim Riley)

YRCA - Ron: Nominal

Webmaster - Dareth: Nominal

OMSI - Peter: Nominal

Telescope Library - Jeff: Dependable help is needed at the general meeting with the observing season in full swing. Will make plea at the next general meeting.

Copying - Debrah: Lots of copying going on, please give as much lead time as possible.

Phone Line: Dale is doing phone line for August.

We need to pick a nominating committee (3 board members, and 3 general members) – volunteers are Sameer, Bob McGown.

A general member has proposed that Portland host an upcoming Astronomical League conference. Putting it on the agenda for the September board meeting.

SPECIAL INTEREST GROUPS

ASTROPHYSICS / COSMOLOGY
Date/Time: Thursday, September 18, 7 PM.
Speaker/Topic: Matt Brewster "Fundamental constants of the Universe "
Place: Linus Pauling Complex, 3945 S.E. Hawthorne St., Portland.
Contact: Bob McGown (503-244-0078)
or Doug Huston (503-629-8809) for more information.

TELESCOPE MAKING WORKSHOP
Date/Time: Saturday, September 13, 10 AM—3 PM
Place: Technical Marine Services Inc, 6040 N. Cutter Circle, Swan Island.
Contact: Jim Girard argojg@comcast.net for more information.

ASTRO IMAGING SIG
Date/Time: Thursday, September 18 at 7:30 pm.
This special interest group is intended for anyone interested in learning or sharing information and ideas about FILM and DIGITAL photography as it applies to aesthetic astronomy picture taking.
Place: Sean's Astronomy Shop.
For information please contact:
Mike Cole @ 360-604-7865 mrcole@earthlink.net or,
Larry Godsey @ 503-675-5217 larrygodsey@att.net

ASTROMETRY, PHOTOMETRY, & SPECTROSCOPY SIG
Date/Time: Wednesday, September 17th at 6:30pm.
For those interested in the use of CCD's as applied to some of the scientific aspects of astronomy, particularly astrometry, photometry, and spectroscopy.
Place: 10175 SW Barbur Blvd, Building B, Portland
Contact: Jim Girard argojg@comcast.net for more information.

Please Note: SIG Meetings are subject to change without notice. Please confirm with the contacts listed.

Awards

Dave Powell
70 Messier objects
Award No. 2072

Michael Sutherland
110 Messier objects
Award No. 2078

Meg Grace
110 Messier objects
Award No. 1989

Andrew Guzie
Lunar features
Award No. 372

For more info visit:
http://www.astroleague.org/al/obsclubs/obsclub.html

Journey to the South *(Continued from page 6)*

The rocket garden at Huntsville Marshall Space and Rocket Center. Photo: Bob McGown

As part of the conference we took an excursion into Huntsville, Alabama to the US. Rocket and Space Center at the Marshall Space Flight Center. The facility contained an incredible collection of space flight training equipment and rockets including two Saturn V rockets, Redstones, and a Apollo 15 capsule. One of the highlights of the facility was a underwater training facility where astronaut Pinky Nelson and other astronauts trained for the recovery of the Solar Max satellite. At the Center were a huge number of children and teens making the place seem like a Space Disneyland.

With all this contagious youthful enthusiasm, I felt like I was 12 years old again as I climbed on the Olympus Mons Mining Colony rock gymnasium. This was an usual climbing wall with about 15 belay stations with varying levels of difficulty. Instead of 'Gri Gri' devices the automatic retraction devices allowed the climber to rappel off automatically when they reached the top of the artificial climbing structure. The idea of the Olympus Mons Mining Colony could be applied to other rock gyms with great success, I think. Another of the test facilities was a four-G centrifuge that simulated a equivalent G force of a shuttle lift off. This pushed my cheeks on to my skull and it felt like I would black out at six G's. Dareth did not appreciate this much realism and waited for me outside in the 90+ degree heat and over 90% humidity. Did we mention it was hot and humid? However, there were shady moments underneath the great Saturn V replica and other huge exhibits outside in the Rocket Park.

After the trip to Huntsville, we journeyed north through the Great Smokies, the Appalachians, the Shenandoahs, and the Allengany Mountains During our trip to Mammoth Caves we discovered a long lost cousin, Joe McGown, who was the head climbing ranger at Mammoth Cave for years and now in upper management. We had a great visit with Joe and explored the labyrinths of Mammoth Cave discussing the electrical system of caves and other great caves of the United States.

On the seven day route northeast we explored a variety of caves, inner space, including Hidden River Cave and Seneca Caves. The unusual classic formations and chandeliers made troglodytes out of us! The extremophile cave dwellers we saw were fascinating and unique. White, blind cave fish and spindly-legged cave crickets were just a few of the critters we experienced at Hidden River Cave. The cave is a sinkhole in the middle of a small town in Kentucky. In fact, the state of Kentucky which we had formerly thought of as bluegrass and horses, appears to be made up of over 3,000 caves and thousands of sinkholes throughout its karst topography. One of the fascinating sights we viewed were blind cave fish that sense danger through the lateral line. We were so inspired that I later wrote a paper called, "Is there Karst Topography on Mars".

Robert McGown on a bicycle in front of the Senator Robert C. Bird 100 meter telescope.
Photo: Dareth Murray

Senaca Caves are in West Virginia, just over the border from Kentucky, in a state that looks very much like the back country of western Oregon. There are small towns and two-lane county roads much of the way to Senaca Cave and Senaca Rock. After exploring the unusual formations at Senaca Caves, we decided to climb to the top of Senaca Rock. This pinnacle is one of the highest in the state (about 1,000 feet) but what a climb! There was a glorious view of the mountains and the and the Shannandoah valley.

The final adventure in the south was a high tour just down the valley on the radio telescopes at the Green Bank Radio telescope facility (NRAO). Dareth and I had an entertaining guided tour of the whole facility and later in the afternoon rode bicycles around the valley, studying the incredible instruments close up. One of the 100' dishes with a horse shoe mount had a massive 17' bearing. It was huge! There were bomb shelters under some of the radio telescopes. During our wild bicycle ride we stopped in on some National Science Foundation High School award winners who were studying the 21 cm line of the Milky Way on the 40' telescope. Only diesel cars are allowed in the valley, because gasoline vehicles' ignition interfere with radio signals. There were about 12 classic radio telescopes including Jansky's radio emission instrument, Grote Raber's radio dish, the Ewing Purcell horn all the way up to the 100 meter steerable dish looking like something from 'Star Wars'. A solar system walk guided our tour with Pluto located at the site of the 100 meter radio telescope, far from the visitor center located at the upper end of the valley.

Our astronomical and subterranean adventures with the bicycle tour of the Green Bank telescopes was a fantastic ending of the journey to the south and an excellent adventure into the realm of radio astronomy.

September 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

September 2003

Sep 8	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
Sep 13	Sat	Telescope Making Workshop	Swan Island	10 AM-3 PM
Sep 15	**Mon.**	**General Meeting**	**OMSI Auditorium**	**7:30 PM**
Sep 17	Wed	APS SIG	Colonial Office	6:30 PM
Sep 18	Thu.	Astrophysics/Cosmology SIG	Linus Pauling House	7:00 PM
Sep 18	Thu.	Astro Imaging SIG	Seans Astronomy	7:30 PM
Sep 20	Sat	Autumn Equinox Star Party!	OMSI	

November 2003

Nov 6	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
Nov 20	**Mon.**	**General Meeting**	**OMSI Auditorium**	**7:30 PM**
Nov 23	Thu.	Astrophysics/Cosmology SIG	Linus Pauling House	7:00 PM

The RCA General Meeting falls on the third Monday of each month. We usually meet in the Auditorium at OMSI, next to the Murdock Planetarium. Occasionally the meeting is held in Murdock Planetarium. Check here each month for details, or look us up at the RCA web site (http://www.rca-omsi.org).

RCA CLUB INFORMATION
Message Line: (503) 255-2016
Web Site: http://www.rca-omsi.org

Oregon Museum of Science and Industry
Rose City Astronomers
1945 SE Water Avenue
Portland, Oregon 97214-3354

The
Rosette Gazette

Volume 15, Issue 10 | Newsletter of the Rose City Astronomers | October, 2003

In This Issue:

Moon photos below courtesy David Haworth

RCA General Meeting

Monday, October 20th.
Social Gathering: 7 pm.
Meeting Begins: 7:30 pm.
Location: OMSI Auditorium
Program topic unavailable at press time. Please keep an eye on
http://www.rca-omsi.org
For more info.

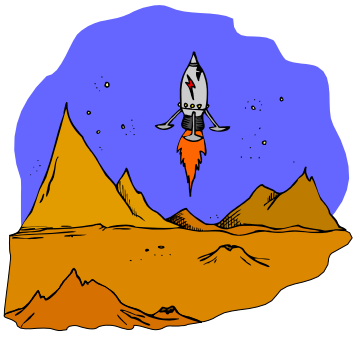
HELP WANTED!

THE RCA IS SEARCHING FOR A SECRETARY

to replace Ron Forrester, beginning Jan. 2004. This is a relatively simple job, requiring attendance at board meetings the first Monday of each month, and a portable computer for taking notes. We are legally required to have a secretary, and therefore this is not a trivial request, RCA will not function if a replacement is not found. Board meetings are friendly & low pressure. Board members are able to influence RCA activities & determine the direction that the RCA takes. If you would like to see us emphasize science, or focus on observing, or establish an observatory, or make larger efforts to outreach to schools & youth groups.....a board position is the most effective means for accomplishing this. And the secretary position does not have the obligations that some of the other positions carry. Please discuss with me, or another board officer, any interest you may have.

Peter Abrahams

IC1396...Taken with an AP130MM F6 scope, an AP .75 focal reducer, and an ST-10XE CCD camera
Terry Johnson



Deadline for submission of articles, ads, and photos for the Gazette is the 20th of each month.

First Quarter Moon	Full Moon	Last Quarter Moon	New Moon
October 2, 12:09 p.m.. PDT	October 10, 12:27 a.m. PDT	October 18, 5:31 a.m. PDT	October 25, 5:50 a.m. PDT

Club Officers			
President	Peter Abrahams	(503) 699-1056	telscope@europa.com
Past President	Candace Pratt	(503) 296-6758	candace@europa.com
VP Members	Doug Huston	(503) 629-8809	geometer31415@aol.com
VP Observing	Scott Turner	(503) 788-6484	kings1@attbi.com
VP Community Affairs	Padraic Ansbro	503-349-3864	whiteowl@ansbro.com
VP, Communications	Matt Brewster	(503) 740-2329	brewster@teleport.com
Treasurer	Ginny Pitts	(360) 737-0569	vepitts@comcast.net
Secretary	Ron Forrester	(503) 504-8071	rjf@skyhackers.org
Sales Director	Sameer Ruiwale	(503) 681-0100	sameer_ruiwale@hotmail.com
Newsletter Editor	Larry Deal	(503) 708-4180	gazette_ed@comcast.net
New Member Advisor	Carol Huston	(503) 629-8809	StarsCarol@aol.com
Web Master	Dareth Murray	(503) 656-1293	dareth@cablerocket.com
Alcor, Historian	Dale Fenske	(503) 256-1840	fenskedf@juno.com
Library Director	Jan Keiski	(503) 293-3281	jikeiski@juno.com
Telescope Director	Jeff Henning	503-656-3041	j42h@aol.com
Media Director	Ron Forrester	(503) 504-8071	rjf@skyhackers.org
IDA Liaison	Bob McGown	(503) 244-0078	r_mcgown@msn.com
OSP Liaison	Dareth Murray	(503) 656-1293	dareth@cablerocket.com
Camp Hancock Liaison	Glenn Graham	(503) 579-1141	the.grahams@verizon.net
Subscription Director	Larry Godsey	(503) 675-5217	larrygodsey@att.net
SIG Director	Matt Brewster	(503) 740-2329	brewster@teleport.com
Youth Programs Director	Jenny Forrester	(503) 504-8071	jenny@theforrest.org

RCA
MAGAZINE SUBSCRIPTIONS

One of the main services offered to RCA members is subscriptions to Astronomy and Sky & Telescope magazines at a much reduced rate from newsstand prices. Astronomy Magazine is $29 for one year or $55 for two years. Sky & Telescope Magazine is $29.95 for one year for those renewing with 2003 expiration dates. Sky & Telescope Magazine is $32.95 for one year for those renewing with 2004 expiration dates. For more information go to the RCA web site: http://www.rca-omsi.org/siteindex.htm and click on any of the magazine links. Larry Godsey, Subscription Coordinator, will be taking renewals and new subscriptions at the Magazine Table at the General Meetings. Please Note: Allow two months for your subscription to be renewed.

Sky & Telescope Store Discount

RCA members who subscribe to *Sky & Telescope* are entitled to a 10% discount at the *Sky & Telescope* online store at: *http://skyandtelescope.com/shopsky* To get your discount, enter Rose City Astronomers when prompted for your club name during checkout at the *Sky & Telescope* online store.

President's Message

By
Peter Abrahams
October 2003

Observing the near & the far. There will be a total lunar eclipse November 8, with the moon rising while in totality. Mid eclipse is 1:19 UT Nov. 9, or 5:20 PM Nov. 8 local time. Sunset & moonrise are at 4:46 PM. This is predicted to be an eclipse that is less dramatic than some of the bright orange lunar eclipses, but one never knows about dust in the atmosphere & other factors that can redden the moon. According to Maurice Stewart, "at 5:20 the Moon will have an altitude of 4.7° and an azimuth of 72.4°. This level of accuracy is somewhat misleading though, on account of the unpredictable variability of atmospheric refraction, which is particularly significant for objects near the horizon, the so-called Novaya Zemlya Effect." East is 90 degrees azimuth, thus the moon will rise 18 degrees north of east.....so you can plan those photographs.

Currently, there is a black hole that is accessible to visual observations using amateur equipment. The accretion disk of this black hole is varying between mag 10 and mag 13, over intervals of hours. The object is thought to be a 'galactic microquasar', a close binary system, one component of which is a black hole, and with jets between components. V4641 Sgr is located at 18:19:21.4, -25:24:25 (J2000.0). You can search the internet for that designation, and there is a site at: http://www.kusastro.kyoto-u.ac.jp/vsnet/Xray/v4641sgr03.html CCD images are sought by researchers.

Peter

THE "KIDS" OF ROSE CITY ASTRONOMERS

RCA Kids

Children ages 4-12 are welcome to join in fun and educational activities while the grownups attend the monthly general RCA meetings. The kids' meeting takes place in the adjoining cafeteria at OMSI from 7:30 p.m. to 9:00 p.m. If you have any questions, please e-mail Jennifer at jenny@theforrest.org.

Welcome New Members!

July 2003
(Correction)

Joseph Brotherton

September 2003

John Harris
David Kosokowsky
David Heal
Phillip Overcash
Jeffrey & Marie Bryant
Warren & Helen Fleming
Dan Sullivan
Jeff Conder
Jason C. Nolce
Johnny W. Sasko
Brett Schaerer
Joe Rettke.

Illustration Below:

Pastel [impression] after Claude Monet, Percival Lowell and personal observations of the planet with a 10" Newtonian reflector telescope-240 X magnification from my front yard on Sept 5th at 1:35 AM. Steady air and forest fire smoke helps! Troutdale Ore. / 1000 x 380 x 226 kb / Mark E. Seibold

CLASSIFIED ADS

Run your non-commercial astronomy related classified ad in the monthly Gazette. Rates are reasonable (free!)

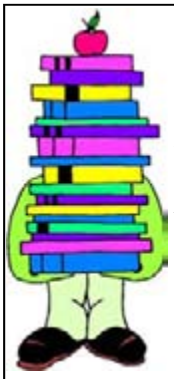
FOR SALE:

MEADE 6" Refractor, Model 152 ED Apochromat

Scope is about 6 years old. Rarely used.

Includes the following: #1697 Computer Drive, Off axis guide, Dual speed electric focuser, 9mm Illuminated reticule eyepiece, 2 x 1.25" Barlow lens Apo, 1.25" Variable projection camera adapter, Nikon camera T-mount, Nagler 4.8 ultra wide lens, Series 4000 13.8mm Super wide angle lens 1.25", Color filter set #1, Color filter set #2, Color filter set #3, Star diagonal, Polarizing filter and Custom made dolly.

Asking $5,000.00. Size and weight of this unit was too much telescope for me. This instrument is relatively unused. Please call Ron Hall at (541) 994-5899 if you are interested



RCA LIBRARY

The Rose City Astronomers maintains a comprehensive club library of astronomy related articles, books, CD-ROMs and videos. These items can be borrowed by members through check-out at the general meetings for a period of one month with renewals available by phone or e-mail to the club library director,

Jan Keiski (jikeiski@juno.com)
(503) 293-3281.
Visit the RCA library web page at:
http://www.rca-omsi.org/library.htm

Oregon Chapter hosts 6th International Mars Society Conference

By Bob McGown

Dr. Robert Zubrin, President of the Mars Society, opened the 6th annual conference with his usual blend of humor and science to convey his passionate conviction that human exploration of the Red Planet should be a priority with NASA. Over 300 people gathered at the Hilton in Eugene, August 14-17, 2003 as more than 100 talks were given, including plenary presentations by many Mars Society leaders as well as Mars Exploration Rover Deputy Project Scientist Albert Haldemann, NASA Astronaut John Grunsfeld, planetary scientist William Hartman and leading science fiction author Greg Bear.

John Grunsfeld NASA Chief scientist-astronaut, Bob McGown & Dareth Murray

Other stimulating presentations included Chris McKay, of NASA Ames Research Center (ARC), who initiated a lively debate concerning the concept of a biologically reversible Mars and ARC scientist Carol Stoker who explained a program for developing technology for water drilling on Mars.

The conference was put together by a steering committee led by Oregon Chapter MS President Erik Carlstrom, Gus Frederick, Dareth Murray, Bob McGown, Bryce Walden, Cheryl York, Joe Turner and Harold Miller. Puget Sound Chapter MS President Chris Vancil and other members also pitched in to help.

Thursday evening featured a spirited panel discussion moderated by Maggie Zubrin, with Robert Zubrin, Dr. William Hartman (author of the "Travelers Guide to Mars"), Greg Bear (author of "Moving Mars"), and the Rev. James Heiser regarding compelling reasons for the exploration and future colonization of Mars and the potential for social evolution on another planet. Earlier that day, I gave a presentation on a proposed 'Mars Meteor Survey' involving cometary dust storms on Mars, a paper co-authored by Bryce Walden, Cheryl York, Tom Billings, Alan Taylor and Gus Frederick of the Oregon L-5 Mars Instrument and Science Team (MIST). This paper was originally published in the NASA "Lunar and Planetary Proceedings, 1999".

The conference was broken up into four tracks of lectures and panels given by scientists from all over the world. Some of the lectures that I especially enjoyed were an astropedrology presentation on "Martian Soils and Paleosols" by Gregory Retallack from University of Oregon; "Mars at the Beach" by Bryce Walden; a talk on "Faith, Science, Mysticism and Mars" by Rev. James Weber and Chris Vancil's demonstration of an potential analog Mars Spacesuit. There were so many excellent presentations over the course of the four-day conference it was like attending a year at the University of Mars!

Friday morning, Dr. Haldemann led a plenary session on the "Science and Spirit of Opportunity" discussing the status of current Mars Rover missions and what they expect to learn from them. Astronomer-astronaut John Grunsfeld then gave a fascinating account of his experiences with the Hubble Space Telescope and why he feels that a mission to Mars should be a reality. He also talked about the astro-photography 'hobby' he pursues with his friend and fellow astronaut Don Pettit, whos home town is Silverton, Oregon.

In the afternoon, Dareth and I gave a presentation on "Observing Mars" designed to turn space scientists into Mars' observers, in preparation for the Saturday night star party, hosted by the Eugene Astronomical Society.

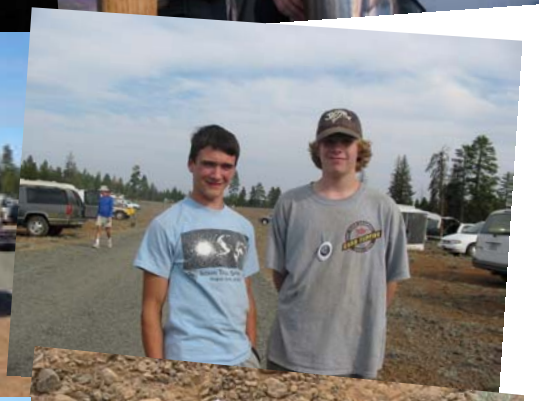
One of the session tracks on Friday was dedicated to education and outreach, led by Gus Frederick, Oregon Public Education Network (OPEN) and Steve Holman, President of the Oregon Science Teachers association.

On Friday night, the band 'The Extremophiles' energized conference attendees outside on the hotel patio. It was a warm evening, perfect weather. An instant hit was an original song called "The Martians are Coming" which had everyone up and dancing. It was a treat to see the Zubrins rock n' rolling along with Penny Boston, John Grunsfeld and even some folks coming in off the street to find out what was going on!

(Continued on page 6)



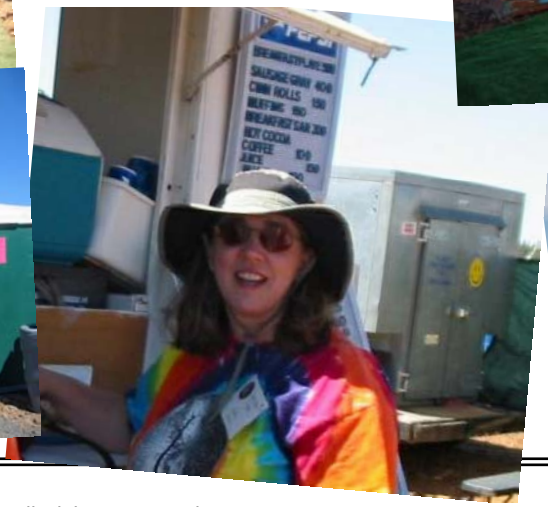



Scenes from OSP 2003!

Photos by
Staff Photographer
Jan Keiski




Two Free Space Science Lectures Set for October 10th and 29th

The series continues with a free public lecture by renowned Astrobiologist Dr. Peter Ward on Friday, Oct. 10 at 6:30 p.m. Dr. Ward is Professor of Geological Sciences, Professor of Biology and Adjunct Professor Astronomy at the University of Washington in Seattle. Author of ten books, Ward is a co-founder of the Institute for Astrobiology at the University of Washington and Principal Investigator of the University of Washington Node of the NASA Astrobiology Institute. He is also head of the NASA Astrobiology Institute Impact Focus Group.

Oregon's own space traveler Astronaut Don Pettit will complete the fall lecture series with a free presentation at 7 p.m., Wednesday, Oct. 29. Dr. Pettit recently completed his first space flight as NASA ISS Science Officer aboard the International Space Station, logging more than 161 days in space including two spacewalks. During his five-and-a-half months aboard the ISS, he and the crew worked on numerous U.S. and Russian science experiments. An avid astronomer and photographer, Pettit will share personal pictures taken of the night sky from the ISS and memories of his journey.

OMSI's fall lecture series is generously sponsored by Jensen Investment Management. For more information or ticket information, call OMSI at 503/797-4000.

Jim Todd.

Mars Society Conference *(Continued from page 4)*

Sean and Bob pointing out a constellation

As a change from dancing, guests could observe Mars on Sean League's 6" refractor telescope, which was set up near the band. The icecap on Mars stood out like a white button. Some detail on the disc could be seen but atmospheric conditions were not ideal for viewing.

After the Saturday night banquet an auction was held where rare and unusual Mars memorabilia made for a lively bidding session. I took home a painting of Phobos by Chris Vancil of the Puget Sound Mars Society Chapter destined for a place of honor in my library.

No conference would be complete without the vendor and membership tables. Jean Grendler, President of the Eugene Astronomical Society (EAS) had a well-organized astronomical display staffed with a team of amateur astronomers who also tended the solar telescopes during the day. It was exciting to observe the Sun with Maggie Zubrin, John Grunsfeld and Greg Bear, along with other members of the EAS and conference attendees. There were a variety of white light telescopes including a custom made one called a 'light speed telescope'.

Sean's Astronomy Shop with Sean League and his partner Jo Miller from Battleground, Washington made a strong presence in the vendor area, showing off his very large inventory of telescopes and other astronomy wares.

On Saturday night, after the buffet banquet and auction, the EAS sponsored a star party on top of a parking structure adjacent to the Hilton. With at least nine scopes and 150 people, the star party entertained the Mars enthusiasts and passers-by well after midnight.

After a weekend of inspirational talks and meeting other Mars researchers and fellow enthusiasts, we realized what a unique experience it had been to make new friends and gain more knowledge about the exciting planetary research of Mars. On to Mars!

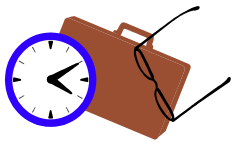
RCA Photo Gallery

NGC 7293 (The Helix Nebula) This planetary nebula located in Aquarius is nearly as big as the full moon. It is quite close to us, at a distance of about 650 light years. This LRGB image was taken on 8/29/03 at the Oregon Star Party in central Oregon. Equipment used was a Genesis SDF 100mm refractor on a William Optics GT-ONE mount and an SBIG ST-2000XM camera. Luminance was the sigma combine of 12 five minute exposures. RGB data was the sigma combine of 5 images in each color of duration 5:2.5:3 minutes. Final processing and color combining was done in Photoshop. Dave Sandage

M8 (The Lagoon Nebula)…This bright, well known emission nebula in Sagittarius is thought to be a very active star forming region. The associated cluster (NGC 6530) was formed from the nebula's gas, and was actually discovered before the nebula. This LRGB image as taken on 8/30/03 at the Oregon Star Party in central Oregon. Equipment used was a Genesis SDF 100mm refractor on a William Optics GT-ONE mount and an SBIG ST-2000XM camera. Luminance was the sigma combine of 20 two minute exposures. RGB data was the sigma combine of 5 images in each color of duration 2:1:1.25 minutes. 4 iterations of L-R deconvolution was applied using CCDSharp, and final processing and color combining was done in Photoshop.
Dave Sandage

Pelican Nebula...Two pane mosaic taken with an AP130MM F6 scope, an AP .75 focal reducer, and an ST-10XE CCD camera
Terry Johnson

M-92 Globular Cluster...Taken with an AP130MM F6 scope, an AP field flattener, and an ST-10XE CCD camera
Terry Johnson



BOARD MEETING MINUTES

(EDITED)
September 8, 2003
Ron Forrester

Rose City Astronomers Board Meeting

Classroom 1

Present: Ron Forrester, Larry Godsey, Padric Ansbro, Peter Abrahms, Debrah Hirshman, Ginny Pitts, Scott Turner

Treasurer – Ginny: $13,708 in bank. Fiscal report due to the state in mid November. Will be working in Multi-ledger to simplify the setup of the program.

Programming – Matt: Connie SDSS for September, October is Greg Bothen, November Ken Croswell.

Membership – Doug: 425 Member families. 240 members currently on the printed gazette list. Both of these numbers are prior to the dropping of those who haven't renewed, which begins end of September.

Star Parties – Scott: OMSI September 20th, Indian Trail Springs on 26th and 27th.

Community Affairs - Padric: Nominal

Sales – Sameer: Nominal

New Members – Carol: Nominal

Light Pollution - Bob: Nominal

AL - Dale: Nominal

SIG's - Matt: Nominal

Magazine - Larry: Nominal

Editor - Larry: Nominal

Library - Jan: Nominal

YRCA - Ron: Jenny is looking for help with the kids each month.

Webmaster - Dareth: Nominal

OMSI - Peter: Nominal

Telescope Library - Jeff: Nominal

Copying - Debrah: Nominal

Phone Line: Padric for month of September – Scott to bring information about a possible alternative for phone line server next month.

Currently there are 2 open board positions, Secretary and Vice President of Star Parties. Matt Vartanian is the first nominee for Star Party position. There are no current nominations for the Secretary. Nominating committee is in full swing.

Annual calendar: Moving July and September board meetings to the following week.

Board discussed the possibility of an AL meeting in Portland. This would require a significant number of volunteers to initiate and carry it through.

Debra was asked to teach an Astronomy class, and is looking for someone who might be interested.

Possible group of people for a field trip to LIGO, Matt is organizing.

SPECIAL INTEREST GROUPS

ASTROPHYSICS / COSMOLOGY
Date/Time: Thursday, October 23, 7 PM.
Speaker/Topic: Alan Aversa "Galaxy Simulations"
Place: Linus Pauling Complex, 3945 S.E. Hawthorne St., Portland.
Contact: Bob McGown (503-244-0078)
or Doug Huston (503-629-8809) for more information.

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Place: Sean's Astronomy Shop.
For information please contact:
Mike Cole @ 360-604-7865 mrcole@earthlink.net or,
Larry Godsey @ 503-675-5217 larrygodsey@att.net

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Date/Time: Wednesday, October 15 at 6:30pm.
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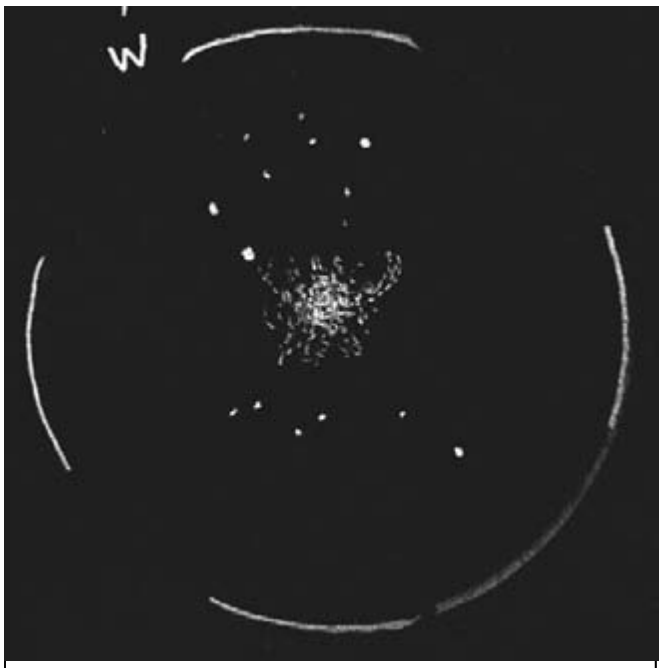
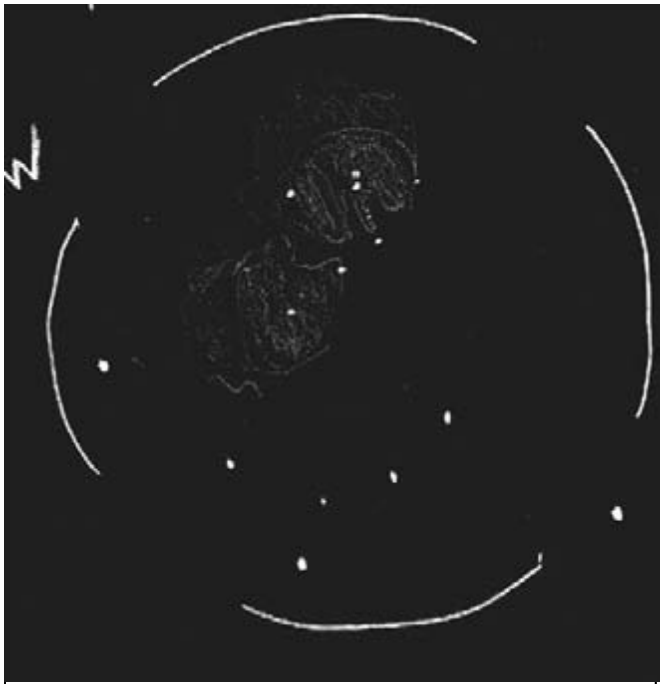
Please Note: SIG Meetings are subject to change without notice. Please confirm with the contacts listed.

RCA Art Gallery



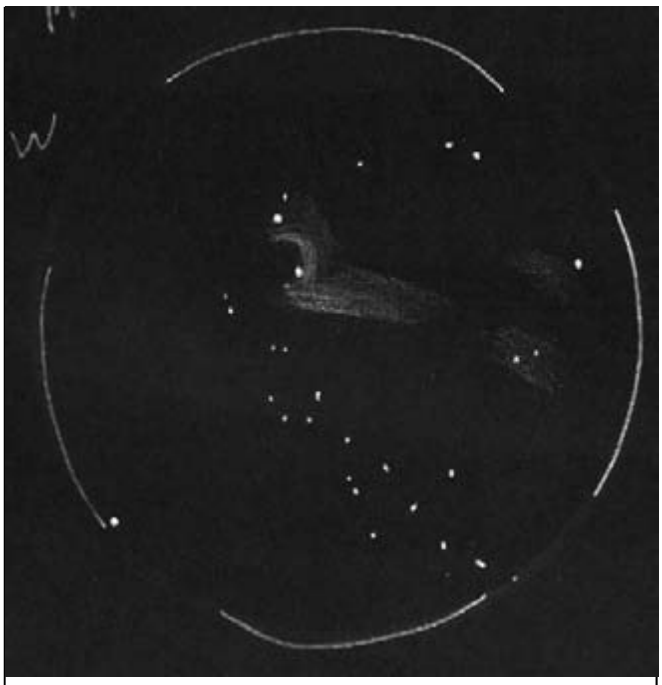
M13 - Hercules…8/27/03, 10:14pm, Indian Trail Springs, 76x (borrowed Rick Olson's 16mm). Very bright and big cluster. I see two arms reaching outward and upward. The center is almost blindingly bright.

Meg Grace



M20...8/29/03, 11:00PM Indian Trail Springs, 72x. This nebula is LARGE. has shape and texture. At first glance, it is like a pair of fogged-up eyeglasses with tiny contracted pupils staring through the fog. The edges are diffuse.

Meg Grace.



M17 - Swan Nebula...8/28/03, 11:27pm, Indian Trail Springs, 72x. This is a beautiful, bright nebula. The bottom stripe of which is the brightest. The swan's body gliding across the milky way pond. There are a few stars which almost outline the head and neck. Also a small snake-like group of stars to the S-SE. First light on my new 17mm Plossel!

Meg Grace

Imressions of Mars through a 10.1" Newtonian reflector telescope. What an observer would expect to see on an average night and including the periphery. Mark E Seibold

October 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

October 2003

Oct 6	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
Oct 11	Sat.	Telescope Making Workshop	Swan Island	10 AM—3PM
Oct 15	Wed	APS SIG	Colonial Office	6:30 PM
Oct 16	Thu	Astro Imaging SIG	Seans Astronomy	7:00 PM
Oct 20	**Mon.**	**General Meeting**	**OMSI Auditorium**	**7:30 PM**
Oct 23	Thu.	Astrophysics/Cosmology SIG	Linus Pauling House	7:00 PM

November 2003

Nov 3	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
Nov 17	**Mon.**	**General Meeting**	**OMSI Auditorium**	**7:30 PM**
Nov 20	Thu.	Astrophysics/Cosmology SIG	Linus Pauling House	7:00 PM

The RCA General Meeting falls on the third Monday of each month. We usually meet in the Auditorium at OMSI, next to the Murdock Planetarium. Occasionally the meeting is held in Murdock Planetarium. Check here each month for details, or look us up at the RCA web site (http://www.rca-omsi.org).

RCA CLUB INFORMATION
Message Line: (503) 255-2016
Web Site: http://www.rca-omsi.org

Oregon Museum of Science and Industry
Rose City Astronomers
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The
Rosette Gazette

Volume 15, Issue 11 | Newsletter of the Rose City Astronomers | November, 2003

In This Issue:

Moon photos below courtesy David Haworth

RCA General Meeting

Monday, November 17th

Presentation by Ken Croswell

The planet Mars has long offered the prospect of another living world in the solar system. With an armada of spacecraft scrutinizing the red planet as never before, Dr. Croswell will show you the best color 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 Ohio to California, 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.

Ken Croswell is an astronomer and author living in Berkley, California. He earned his doctorate in astronomy from Harvard University for studying the Milky Way galaxy, in particular, for observing distant stars in the Galactic halo and thick disk.

Please join the Rose City Astronomers in welcoming Dr. Croswell at the November 17th general meeting.

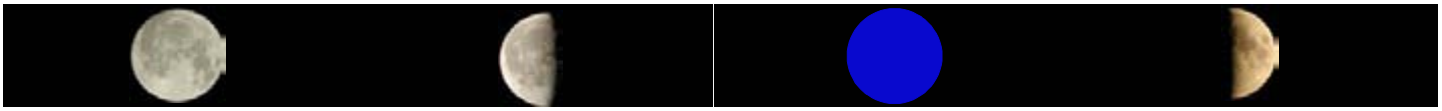
Social Gathering: 7 pm.

Meeting Begins: 7:30 pm.

Location: OMSI Auditorium

Deadline for submission of articles, ads, and photos for the Gazette is the 20th of each month.

Full Moon	**Last Quarter Moon**	**New Moon**	**First Quarter Moon**
November 8, 6:13 PM. PST	November 16, 9:15 PM. PST	November 23, 3:59 PM PST	November 30, 10:16 AM. PST



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President's Message

By
Peter Abrahams
November 2003

The Oregonian does not often have science related headlines, and it caught my eye when a predicted aurora was a banner on page one of the Oregonian for Friday 24 October, 'final street edition', in the newsstands. I was happy to see Richard Hill get a headline, he is their science writer and does an excellent job, though far from the front pages. But I was not too darn overjoyed, since this would typically bring a flurry of phone calls to the RCA line, and in addition, I had checked various solar related web pages that morning & there had been no solar event that would justify such a prediction. Hill's story was not sensationalistic, but the page one placement & the headline were somewhat tabloid, at best.

However, the Oregonian was probably just following the lead of major news services, since this story was 'all over'. There were in fact two major sunspots, and a healthy outbreak of prominences & flares. In addition, an interesting story had been posted on the largest solar 'event' known to history, "The extreme magnetic storm of 1-2 September 1859", when telegraph cables in the U.S. & Europe shorted out & started fires as a result of the electrical field, and auroras were seen in Havana and Hawaii.
http://science.nasa.gov/headlines/y2003/23oct_superstorm.htm?list997439
http://www.agu.org/pubs/crossref/2003/2002JA009504.shtml

The community of astronomers involved in near earth objects are continually revising their announcement procedures to reduce the level of sensationalism they cause. And many of us remember 'The Jupiter Effect', when a planetary alignment in 1982 was going to cause earthquakes and the destruction of Los Angeles. There were one or two scientists advocating this probability, and the media coverage was extensive.

We have grown past the times when comets were harbingers of disaster (there were fabulous published broadsides claiming Armageddon back in the 1500s & 1600s, and the artwork was outstanding.) But we haven't changed as much as would be hoped, and there are lots of people whose love for astronomy involves imagining it more than observing it.

RCA
Magazine Subscriptions

One of the main services offered to RCA members is subscriptions to Astronomy and Sky & Telescope magazines at a much reduced rate from newsstand prices. Astronomy Magazine is $29 for one year or $55 for two years. Sky & Telescope Magazine is $29.95 for one year for those renewing with 2003 expiration dates. Sky & Telescope Magazine is $32.95 for one year for those renewing with 2004 expiration dates. For more information go to the RCA web site:
http://www.rca-omsi.org/siteindex.htm
and click on any of the magazine links. Larry Godsey, Subscription Coordinator, will be taking renewals and new subscriptions at the Magazine Table at the General Meetings. Please Note: Allow two months for your subscription to be renewed.

Sky & Telescope Store Discount

RCA members who subscribe to *Sky & Telescope* are entitled to a 10% discount at the *Sky & Telescope* online store at:
http://skyandtelescope.com/shopsky
To get your discount, enter Rose City Astronomers when prompted for your club name during checkout at the *Sky & Telescope* online store.

The "Kids" of Rose City Astronomers

RCA Kids

Children ages 4-12 are welcome to join in fun and educational activities while the grownups attend the monthly general RCA meetings. The kids' meeting takes place in the adjoining cafeteria at OMSI from 7:30 p.m. to 9:00 p.m. If you have any questions, please e-mail Jennifer at jenny@theforrest.org.

Notes from Oregon Star Party XVI
by Jim Reilly

Arrived Tue 8-26 early evening; just enough time for scope and tent assembly before dark fall. The fires near Sisters are very troublesome - 4mi visibility in Madras, a little better in Prineville. Smoke on site also, but later (after my bedtime) it broke, giving ~5 hours for good viewing. I awoke 5am and found the skies perfectly clear, with Mars setting and Saturn & Orion high in the east.. just to say I did it I examined Mars in my scope, but it was deep in the western smoke and looked lousy.

Wed 8-27 was mostly clear, allowing for optimism. My CD player was DOA, though, rendering my multimedia scope rather mundane - so off I went to the Prineville BiMart for CD player, trash bags for Gene and a cute fleece throw (I was chilly last night!). We set things up as far as necessary late in the day, then dressed up for the night. Some smoke was still harassing us so I picked and chose items that (1) were in good skies and (2) were easy on my still-angry back. M2 looked especially nice, as did 5907 and two neighbors that were not quite where Uranometria implied. When the Tangerine Dream "Mota Atma" soundtrack ended I wandered for a while, visiting Chuck and the Candace/Meg/Carol cluster. Candace has a new job supplying all the glass tile for Oregon Tile & Marble, quite a venture! As I returned 'home' Howard revealed a sought-after wonder: Phobos and Deimos were clearly visible when Mars exited his 20" field! I then focused my attention on Mars for the duration: I could not capture those moons with occulted 25mm nor any other weapon, but Solis Lacus and other mottling's were occasionally clear. Judy's 16" was working full-aperture, showing just what a tight f/4 can accomplish, while my device was much better at its masked 6.5-inch aperture. Several filters were tried with minimal improvement. While doing so I heard Judy & Chuck speaking of the new Mars 03 filters from one source or another; I checked them out then offered them my FL-D. It's similar to some of the new types but pleasantly different also. I took another walk and found Howard and Tom (Oz?) checking an obscure Uranometria clumping (gxgroup #49) in Tom's 24". They then began comparing the UHC and a new similar offering from [astronomics?], checking n246 for improvements. We all very slightly preferred the new offering. When they swung over to M27 I grabbed my nband for comparison also. On M27 Tom picked the astronomics, Howard couldn't pick a winner, and I leaned to the UHC. That brought us to 2:30, and after a quick [& low] view of Saturn I packed up and went to bed. The back relaxed a bit then, but not much.

Thu 8-28 began full of high clouds and a smoky aroma. Grand opening day put me in the tent from 2-4, so I showered early and checked the vendors that were in place. Sean had a 6" f/8 and an 8" f/6, also a shorty Orion refractor that would pack well for Teotitlán (if I don't build a break-apart model for the Six-Inch). I mentioned that potential Mexico trip to a few folks; both astronomically and otherwise it sounds more and more interesting! A few more vendors were expected so I felt no rush. Sean came to visit my 17.5 after I checked his stuff. The committee is resplendent in the tie-dye shirts; they look better than they might have, a near-perfect spiral front and back adds color and a bit of galactic feel. I added some foam spacing to the spider-vane bolts; they were not locking down quite right which had allowed for de-collimation during the previous night's Martian tour; otherwise the system was working well.

The evening still showed cirrus clouds, but after dark viewing was decent though not great. Bruce J. showed up, enjoyed the views and tunes for a while before he headed for others and I for mocha. Among the sights were M11, n7479 and - on the first guess! - n7678! How did I do that after years of no practice? Mars was better this night using full aperture, but still improved with the 6+ mask. I tracked down Lowa with ease, adding to my minor-planet menageries with a new high-numbered object. Soon it was Bruce's' turn to appear; we hung around Chuck and Howard before he & his son dropped by for sights and sounds. Another satisfied multimedia visitor! Tammy & Michael had set up next to me but crashed early; given the non-improving conditions it was a good choice. I stopped by Dan Grey's 28" for a minute, but clouds were taking the field by 1:15, so soon I gave up for some sleep. The forecast sounded much better in the future, so sleep while you can..

Fri 8-29 brought mocha, and later the swap meet. I had tentatively agreed to take Susie's ASys focuser at an undetermined price, and nearly grabbed VA Bill's Paracorr before Jeff Henning grabbed it. As I left the building I spied Steve Nehl selling out of his pickup, at which point I stole a home-grown 8" f/8 for $40 including cell! The focuser was only $55 so the next project is unofficially underway. No steals for Teotitlán (well, I did buy a copy of The Sky) so perhaps the Six-Inch will be compacted for a long voyage? The tent business went well enough, and I cut OSP a check and took $50 in small bills to get me through the weekend. I redid the red-dot mount, which was unable to point exactly to its targets, but could not escape the tent soon enough to be added to the walkabout.. too bad! Evening brought bad news - the plume found us and overspread the sky with brown tint. The sun looked positively Martian in its crimson cover; among other pix is one of Tammy holding it up on her finger. Suddenly it was cool & cloudy, a distressing turn after a gorgeous day.

(Continued on page 4)

Notes from Oregon Star Party (Continued from page 3)

Evening came, and four stars provided minimal entertainment. At 9PM the openings began to appear, so despite the glass or maybe two of beer I made my way to the turnaround for the sky tour. It was odd trying to orient people on the fly as openings began to appear, but we managed to get through a good bit of orientation. I say 'we' as Dave Powell took over after a while with some star-naming and mythology; he also gave me hints as to other commentary in my talk, some of which I utilized. He also handed over the abomination that is the green pointer; I hate this device but all have become dependent, so what could I do? When all was done the skies were nearly clear (other than Sco/Sgr) and I was cold and back-sore. The union suit (followed swiftly by the snowmo-suit) did not allow for quality stretching, so my back was less happy this night despite the adjustment from Jazmar - but I made do. GREAT night for moons, as luna glowed thin and red early, then a few on Uranus, 1 or 2 more possible on Neptune, and several definites around Saturn. And let's not forget Phobos and Deimos, this time in my own scope! The tunes and views went smoothly, and I stopped several folks as they passed with views; three for Neptune, a mom & two kids with a quick grand tour, and after 3 a woman alone whose family was sleeping (we picked off the Saturnian moons together). The hotdog & mocha got me through a sleepy stretch, but after 4 most everything had been seen in its best light; Mars was getting low, Saturn and M42 seen clearly, and little else reaching my fast-fogging brain. Besides, the CD player stopped in exhaustion while playing TD3 from Tangent.) By 4:30 I shut down exhausted and happy.

Sat 8-30 was off-schedule, though the neighbors were close enough to hear clearly even in quiet time. I was up by 9:30 for refreshment and a shower.. only to find that showers began well before 10am! After dodging the line a few times and checking out Joe Sunseri's supplies I did shower; the line moved at a decent rate and the cool water felt very good. I then resupplied on many fronts: Joe had a focuser AND tripod-clamp to complete my 80mm (Teotitlán scope?), another site a tall Rigel q-finder, and Joe again for 1.3" secondary for that new 8f8 mirror from the previous day. That should keep me for a year, I think!

Finally it's time to do something: photo shoot and door prizes. I play Vanna for Gene while learning the ropes, all goes smoothly enough. I wander over to dinner, and the troubles begin: Dave P. points out new arrivals seeking access to the reg-tent, and I almost reach them when the radio comes to life. Someone says Tammy says my tent was bedeviled! I agree to meet the new folks at the tent in 15 minutes and dash downhill. The tent is definitely deformed, but turns out that all the gear is resting on the sidewall; when all is righted the tent appears fine. Tammy & Michael are far less fortunate: their new tent is wrecked. They salvage their stuff, thankfully finding the new laptop intact, and three of us drag their gear to Lars' tent. I then jump on the bike, ride to the reg tent.. pop goes the rear tire! I limp in and find the gear, learning that an extra person should pay; I accept $20 gratefully. A neighbor needs aloe vera for sunburn, so now I'm on the horn for first-aid folk. I park my bike behind the tent, meet the first-aid guy, and dash to dinner with ten minutes to spare. Woof.

Twilight at last, and I discover the quickfinder is nonfunctional; the tent is still standing so I wait until Sunday to resolve the problem. At least the red dot is pointing better, so all is not lost. A weird night begins clearly, with Sco and Sgr at last visible to the south. Soon, however, the smoke starts to shut down the faint objects, leaving Mars as the only object worth seeing. The smoke actually helps, removing some glare; it also lowers the odds on Phobos and Deimos though. I strongly suspect Phobos and occasionally think I've seen Deimos. Mars even looks good through the 6.7mm and camcorder! More 35mm shots also, maybe twice capturing meteor streaks? Skies did finally improve around 3AM, a common event at this OSP; that brought Saturn to the forefront.. OK Orion also. Tammy stuck around, well-wrapped in a chair and enjoying the tunes & talk; her last views of those two objects made it worth the chill. This was my latest night, as I held up until 5:15 before shutting down.

Sun 8-31 was not for sleeping in - I was awake just after 8 and brought camp up to the car. I was not alone in the early action: the tent-rental people were already in breakdown mode!! I broke down the scope to the Irish tunes of Bohola, found the Barlow hiding under the ground board, and had a quick meal before the breakdown committee got in gear. We put the reg-tent back in its trailer, and Scott drove my bike to the observing field while I did debris duty along the perimeter. We were all done by 11:40, a new record for me; I celebrated by visiting my family's Timothy Lake camp until sundown, arriving home at 9:45 with a day to 'relax'!

A 6” f/15 MARS TELESCOPE

By John W. Siple

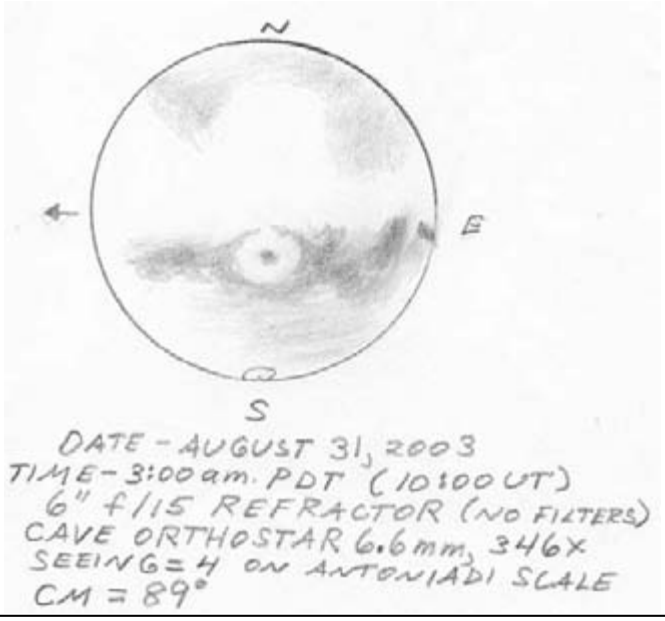
In anticipation for the “Great Opposition of Mars in 2003” numerous amateur astronomers across the country have dusted off or primed up their telescopes. Reflectors with very long focal lengths and apochromatic refractors such as those made by AstroPhysics, Inc. provide some of the best views of our reddish neighbor in space.

Jaegers, Inc. 6” f/15 achromatic refractors are instruments that are also capable of showing very fine detail on planets. An entire instrument was constructed using a vintage Jaegers, Inc. air-spaced objective lens. The optical tube assembly to house such a long focal length lens is over 7 feet long!

A local machine shop fabricated the endplate and light baffles out of aluminum. The 7” O.D. thin-wall aluminum tubing was purchased from a local irrigation company. As a requirement for portability and storage, the tubing was cut in half and a coupling collar installed (when ready to observe the two halves are simply screwed together). A vintage 1.25” rack and pinion refractor focuser completes the OTA. The inside has a coating of flat black paint, plus Protostar’s flocking paper covers a large portion of the internally exposed surfaces.

A 1980’s era Meade Research-Series heavy-duty equatorial mounting holds the big refractor. The pier legs have a set of castors, so the mounting can be rolled underneath my garage door during observing sessions. Entire setup takes only five or ten minutes.

Did the telescope live up to expectations? At opposition in August Mars displayed a huge disk with the southern polar cap etched in bold relief onto the planet’s surface. Of Mars’ remarkable features, the most amazing to watch over the course of its close journey near Earth was Solis Lacus or The Lake of the Sun, a 300 by 500 mile ellipse in the southern hemisphere. Telescopically “The Eye of Mars” appeared as an elongated dot, and it hard to imagine that this speck is roughly the size of Oregon. The great chasm of Vallis Marineris, labeled Tithonius Lacus on charts (Percival Lowell’s “Coprates”), was seen as a narrow line just to the north of Solis Lacus, and on nights of very steady seeing the entire region closely resembled a mural of Mars generated by JPL that hangs on my wall (individual craters could not be seen, but the albedo and geological features matched exactly!).



StarDust Chair

By Tim Crawford

Arch Cape Observatory

Its always a tough choice for even experienced observers as to what their pier height should be in the observatory. The same problem exists in the field for Refractor and SCT owners when setting their tripod in place. Invariably the height of the pier or the tripod is a compromise of tradeoffs as to when we grab a footstool or bend over.

I recently had to face this problem when installing a pier for my Clear Skys Observatory. Several years back I purchased an 8” steel Pier from Le Sueur Manufacturing Company for my roll off roof observatory near Big Lake, AK. I brought this 63-inch high pier with me to our retirement home in Arch Cape, OR. (By the way, I really like the polar plate and its adjustments that Le Sueur sells for their piers.)

(Continued on page 9)

Total Lunar Eclipse for the Pacific Northwest

Though viewers in the Pacific Northwest will only see a portion of it, there will be a total lunar eclipse on the night of Saturday, November 8. At 5:06 p.m. PST, the Full Moon will begin its slide through the dark shadow of our planet. In various Indian legends November's full Moon is called "the Frost Moon" or "the Beaver Moon." For 24 minutes, the only light hitting the Moon will be the reddish glow from all of Earth's sunrises and sunsets. Weather permitting, OMSI, Rose City Astronomers Club, and Vancouver Sidewalk Astronomers will set up telescopes at the east parking lot of OMSI to view the lunar eclipse. Learn how to view the eclipse with the experts and be a part of the event!

Unfortunately, the moon will be low above the eastern horizon for the Pacific Time Zone at that time. Though the greatest eclipse will occur at 5:18 p.m., the moon will be 4 degrees above the eastern horizon and the twilight will not allow us to clearly see the usual redness associated with lunar eclipses.

At 5:30 p.m., the total eclipse will end when the moon is only 6 degrees above the horizon. The visible partial eclipse will last until 7:04 pm PST, when the Moon moves away from the umbra or earth's shadow. The next total lunar eclipse will be on October 28, 2004, again low above the eastern horizon.

Times of Eclipse Events, November 8, 2003:

Event	PST	Altitude
Moon rise	4:46 p.m.	
Total eclipse begins	5:06 p.m.	2 degrees
Mid eclipse	5:18 p.m.	4 degrees
Total eclipse ends	5:30 p.m.	6 degrees
Partial eclipse ends	7:04 p.m.	22 degrees

Background:

The moon is always full at the time of a lunar eclipse because earth will lie between the sun and moon. If the moon's true path were exactly in the plane of earth's orbit about the sun, we would have a lunar eclipse at each full moon. Actually, the moon's path is inclined at about 5 degrees to the earth's orbit, so every year of two on average all three line up for a lunar eclipse. In a lunar eclipse, the earth casts a dark central shadow, called the umbra, across the moon's surface. The moon should look deep brown, gray or even reddish along the edge.

Jim Todd

ATTENTION RCA MEMBERS!
SKY TOOLS - 2 SOFTWARE AVAILABLE AT A DISCOUNT!!

The RCA Sales Store intends to order Capella Soft's “SkyTools 2” astronomy software for our club members at a discounted price.

SkyTools 2 is a software program that generates an observing plan for a night based on any criteria that fits you and then prints star-hop & finder charts for your target objects, customized to your specific telescope & eyepiece(s). SkyTools 2 also boasts many built-in & downloadable observing lists such as Messier, AL Binocular Deep Sky objects, Herschel 400, etc. It has excellent event planning capabilities and includes a feature rich logging tool for your observations.

The software retails at $99.95 (+ shipping). However, it will be available to RCA members at a discounted price. It is expected to be available at the November or December 2003 general meeting. The more the number of orders, the greater the discount that we will be able to provide. The discounted prices will be in the following ranges:

9 or less orders - $90.00 (~10% discount)

10-19 orders - $80.00 (~20% discount)

20 or more - $70.00 (~30% discount)

To learn more about ordering this software at a discounted price, please visit following:

http://www.rca-omsi.org/skytools2.htm

Thank You!

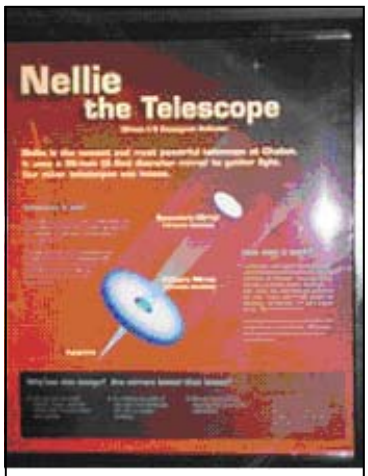
Sameer Ruiwale.

First Light on Summer Solstice!

"Nellie" - Chabot's 36" Grand Opening Ceremony

By Bob McGown

First light with a large telescope is an exciting celebration! At Chabot Observatory, first light for "Nellie" was the climax of a project lasting 2 ½ years. The scope is named after the granddaughter and grandmother of the benefactors, Merrill and Lillian Martin of Oakland, who donated $500,000 to finish the project. The builders of the roll-off roof observatory and the telescope maker toiled to attain perfection in telescope performance for this celebration. The event drew engineers, architects and amateur astronomers to the Chabot Space Center. Nellie is a 36" classical Cassegrain constructed for educational use in the modern style roll-off roof observatory building. The deep sky object chosen for viewing at First Light was M92, a globular cluster in Hercules.



Poster describing Nellie.

On the patio adjacent to the two domes and new observatory for Nellie, amateur astronomers from local clubs had a variety of scopes up to a 16" Dobsonian for the viewing crowd. The two domes next to Nellie house an 8" Alvin Clark, nicknamed Leah, and a 20" Alvin Clark, called Rachel. The original builders of the observatory bestowed these names upon the scopes after Job's wives in the Old Testament.

East County Astronomical Club's Webmaster Don was operating Rachel, viewing globulars. Using the information we had learned in our talk with Steve Vogt at Lick Observatory the previous night, we discussed with Don the possibility of planets around a globular cluster in 47 Tucanu. There is a low probability of planets orbiting in globular clusters due to gravitational interaction.

View of Nellie and the new observatory building.

After viewing on Nellie, Rachel and some of the rival scopes operated by amateurs, Dareth and I went inside the space center to see what was on exhibit. In the Hall of Planetary Science, there is an extraordinary hands-on exhibit featuring many interesting ways to see what makes up the other planets. In that hall there was also an exhibit about meteors and meteorites with some of the largest palasites I had ever seen. The exhibit has been much enhanced with historical solar astronomy displays since my previous visit two years ago.

Another new exhibit was on loan from The Smithsonian and featured antique telescopes. Some of the items on display were a Porter Garden Scope, a Henry Fitz seven inch comet seeker spy glass, a 24' Ritchey from Yerkes and Einstein's Telescope, a brass refractor. There were also a variety of historical spectrographs and other scientific instruments from Mt. Wilson and Lick Observatory.

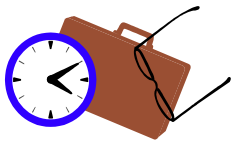
We stopped by the brand new library (to open July 5th) where the librarians were busy cataloging books. They were glad to accept a copy of Galaxy Groups and Clusters, autographed by yours truly.

We noticed two remarkable chairs in the library with 'Do not sit' signs. Looking at them more carefully, we saw that these were the Herschel Chairs, made in 1894. The chairs were donated to the library by Chabot's retiring executive board director Mike Reynolds. I discovered at the top of each chair was a carved, almost invisible, whimsical thermometer! I surmise that each of the thermometers were symbolic of Herschel's discovery of the infrared by measuring temperatures in the colors of the spectrum. Carved into the front of each chair was a representation of the 40' telescope, with a Latin quote and 2 lions.

One of the Herschel chairs at Chabot Library

I had seen pictures of these chairs before but it was really a treat to touch them and 'discover' the thermometers. The librarians did not have the provenance on the chairs and no one had identified the thermometers. The new director of Chabot Observatory, Alexandra Barnett, was thrilled to hear about the newly discovered details of the chairs and promised to contact Peter Hinkley of the Royal Astronomical Society in London to get more information for exhibiting the chairs properly.

The area around the Observatory has hiking trails in the surrounding foothills that offer excellent hiking amongst the sequoias and views of the bay and beyond. This facility is worth a special trip and I urge those of you who haven't been there to take the time.



BOARD MEETING MINUTES

(EDITED)
OCTOBER 6, 2003
Ron Forrester

Present: Ron Forrester, Larry Godsey, Dareth Murray, Matt Brewster, Padraic Ansbro, Peter Abrahams, Bob McGown, Debrah Hirsh, Jan Keiski, Ginny Pitts, Sameer Ruiwale, Carol Huston, Doug Huston

Guest: Matt Vartanian (VP Observing Nominee)

Treasurer – Ginny: $13,439 bank cash balance

Programming – Matt: Greg Bothen cancelled. Last minute scramble to secure a speaker for October. November is Ken Croswell.

Membership – Doug: 447 member families at end of September, this is pre-pruned. Will drop to around 250 when we prune out those people who have not renewed.

Star Parties – Scott: ITS was very successful, great viewing and fun by all.

Community Affairs - Padraic: When people call with questions about setting up telescopes, etc, we should point them to the TM Workshop. Had a question about handicap accessible star parties – OMSI star parties was suggested. Volunteers for Athey Creek star party for a weekend soon needed.

Sales – Sameer: September was $356. Going to try and do a software deal again, SkyTools this year. Might get a 50% discount (20 copies or more) with final club member price being around $60-$70.

New Members – Carol: Made contact with some membership folks from other clubs. Carol is writing up some information on encouraging membership.

Light Pollution - Bob: May be doing a lecture on light presentation. Would be nice to have some stock slide shows for IDA presentations.

AL - Dale: Nominal

SIG's - Matt: A couple of SIGS, the AI and the APS cancelled their September meeting on short notice. This can be a real problem when done on such short notice.

Magazine - Larry: Yo

Editor - Larry: According to our Editors wishes, Programming will make sure speaker commitments and the associated bio/program description gets to the Editor.

Library - Jan: Nominal

YRCA - Ron: Nominal

Webmaster - Dareth: Bill for our Easy Street.

OMSI - Peter: Nominal

Telescope Library - Jeff: Solar scope is working – not perfect, but working. The training program has been run past 8 individuals who are now qualified to checkout the Solar scope.

Copying - Debrah: Nominal

Phone Line: Padraic for October

Elections: Carol, Bob and Sameer are on the nominating committee.

Looking to fill two positions, Secretary, and VP Observing. Have no nominee for Secretary and one for VP Observing. Carol is working through a list of possible people for the Secretary position.

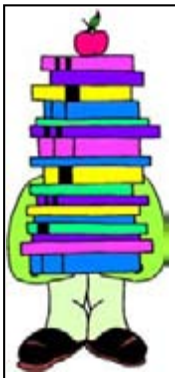
Membership: How can we leverage the membership information we have regarding what people are willing to do for volunteering, etc. Online form needs updating to capture same information as written form we use.

Additionally, we need to make a decision on whether the Gazette on the website is a perk of membership, and if so, how do we protect it from non-members. Need to communicate more clearly that the Gazette is normally available in the first week of each month. Could we do an automatic notification when the Gazette is posted – this has many problems.

Need to realign the dates the printer syncs the mailing list with important dates when membership adding/pruning activities. Will make sure Editor has latest list so that we're not mailing out Gazettes that we don't need to.

Do we want to extend the speakers time to 1 hour 15 minutes? There are several issues with this, including kids getting out on time, etc. Consensus seems to be that we keep the speaker to one hour.

If we're going to have a Messier Marathon in March, Carol estimates that we should settle on a location by January 2004 at the very latest. Any contract we pursue with a lodging company should stipulate that members are responsible for paying for cancelled rooms, that the RCA club will not be responsible.



RCA LIBRARY

The Rose City Astronomers maintains a comprehensive club library of astronomy related articles, books, CD-ROMs and videos. These items can be borrowed by members through checkout at the general meetings for a period of one month with renewals available by phone or e-mail to the club library director,

Jan Keiski (jikeiski@juno.com)
(503) 293-3281.
Visit the RCA library web page at:
http://www.rca-omsi.org/library.htm

StarDust Chair *(Continued from page 5)*

After Ordering a Clear Skys Observatory I had to make a choice as to floor height above ground for the existing pier. I finally settled on a pier height of 43 inches above the floor for my Meade 12 inch SCT. I arrived at this height by installing the pier on its foundation and then setting my ladders and boards at various heights while I moved the scope around on its polar mounting to try and arrive at, what for me, was a reasonable height compromise; then I built the decking to the determined height around the pier.

Whether doing drawings, guiding, centering, Variable Star observations, searching for dim objects, aligning or simply being a visual junkie all of us find that we end up with the eyepiece in uncomfortable positions from time to time. A small to medium kitchen or shop ladder (the ones that have the wide steps and a wide stable base) can help take care of the lower altitude targets but ones with higher altitudes and or Declinations can be very uncomfortable for the back.

I discovered an excellent solution at hands on Optics (http://www.handsonoptics.com/) in the form of a product that they call the StarDust Chair that has now provided me with many hours of comfort and convenience.

This is a folding Chair, which is a handy feature for small observatories and traveling, that has a variety of adjustable positions for the seat. I find it to be easy to manage opening the chair, setting it up and changing the seat height by hooking onto the various horizontal bars in the darkened interior of my observatory. A plus for me is the spring-cushioned seat is very comfortable even when I move around on it. They included a supply of Dark Red side reflectors to allow you to see the chair in the dark with a red night light; while this feature has not been necessary for me I suspect it might be important in the field.

When the top of my eyepiece is 62 inches above the ground (photo 1) I have the seat in the highest position, which places the seat at about 34 inches off the floor; a handy feature for the higher positions is that the bottom of the chair has a very practical footrest.

When the top of my eyepiece is 51 inches off the floor (at the zenith) then I find that the seat height for this position is at 23 inches above the floor (photo 2).

While I do not use this position the seat will actually go down as low as 13 1/2 off of the floor.

I find the chair to be reasonable stable and have no problems with affecting stability by moving around quite a bit on the seat, regardless of height. Not only is this a practical tool for SCT and Refractor owners but also a lot of the smaller Dobson owners could benefit as well as Newtonian owners, especially when viewing at lower elevations.

The StarDust chair is made of steel and the width is 16 inches; depth is 22 inches and the folded length/height is 43 inches.

I almost forgot. This product was also chosen by Sky and Telescope as one of the Hot Products for 2003 and Sean's generally has them in stock. It certainly has been a hit with my back, legs and seat.

SPECIAL INTEREST GROUPS

ASTROPHYSICS / COSMOLOGY
Date/Time: Thursday, November 20, 7 PM.
Speaker/Topic: Conrado Salas Cano 'Parallel Universes'
Place: Linus Pauling Complex, 3945 S.E. Hawthorne St., Portland.
Contact: Bob McGowan (503-244-0078)
or Doug Huston (503-629-8809) for more information.

ASTRO IMAGING SIG
Date/Time: Thursday, November 20 at 7:30 pm.
This special interest group is intended for anyone interested in learning or sharing information and ideas about FILM and DIGITAL photography as it applies to aesthetic astronomy picture taking.
Place: Sean's Astronomy Shop.
For information please contact:
Mike Cole @ 360-604-7865 mrcole@earthlink.net

ASTROMETRY, PHOTOMETRY, & SPECTROSCOPY SIG
Date/Time: Wednesday, November 19 at 6:30pm.
For those interested in the use of CCD's as applied to some of the scientific aspects of astronomy, particularly astrometry, photometry, and spectroscopy.
Place: 10175 SW Barbur Blvd, Building B, Portland
Contact: Jim Girard argojg@comcast.net for more information.

TELESCOPE MAKING WORKSHOP
Date/Time: Saturday, November 15, 10 AM—3 PM
Place: Technical Marine Services Inc, 6040 N. Cutter Circle, Swan Island.
Contact: Jim Girard argojg@comcast.net for more information.

Please Note: SIG Meetings are subject to change without notice. Please confirm with the contacts listed.

November 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

November 2003

Nov 3	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
Nov 8	Sat	OMSI Star Party	OMSI	
Nov 17	**Mon.**	**General Meeting**	**OMSI Auditorium**	**7:30 PM**
Nov 20	Thu.	Astrophysics/Cosmology SIG	Linus Pauling House	7:00 PM

December 2003

Dec 1	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
Dec 15	**Mon.**	**General Meeting**	**OMSI Auditorium**	**7:30 PM**

The RCA General Meeting falls on the third Monday of each month. We usually meet in the Auditorium at OMSI, next to the Murdock Planetarium. Occasionally the meeting is held in Murdock Planetarium. Check here each month for details, or look us up at the RCA web site (http://www.rca-omsi.org).

RCA CLUB INFORMATION
Message Line: (503) 255-2016
Web Site: http://www.rca-omsi.org

Oregon Museum of Science and Industry
Rose City Astronomers
1945 SE Water Avenue
Portland, Oregon 97214-3354

The
Rosette Gazette

Volume 15, Issue 12 | Newsletter of the Rose City Astronomers | December, 2003

In This Issue:

Moon photos below courtesy David Haworth

RCA General Meeting

Monday, December 15th

RCA HOLIDAY POTLUCK

In keeping with annual tradition, the December meeting of the Rose City Astronomers will be a holiday potluck and social gathering for all family members.

Please note this event will be held the third Monday of December, December 15th at 7:30 PM in the OMSI Cafeteria.

In addition to the pot luck dinner we will also have sharing time for astronomy photos and astro-equipment swap meet. Save time to shop at the RCA Sales Table for your favorite holiday astronomy gifts. Drop by the library table to check out a favorite book!

Each member is asked to bring a dish to serve 10-12 people.
PLEASE BRING PLENTY!

If your last name begins with please bring:

A-L: Main Dishes

M-R: Appetizers/Side Dishes

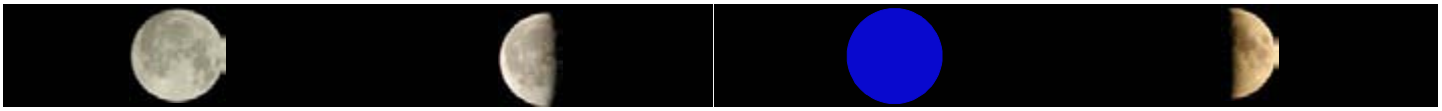
S-Z: Desserts

Plates, plasticware, napkins, and beverages/ice will be supplied by the club. Just bring your dish (and a serving utensil) and enjoy the holiday spirit of the RCA membership.

We will have a screen and slide projector set up please bring your 35 mm slides. Jan Keiski will be preparing a digital photo exhibit, please send astro images, and star party photos to Jan at jikeiski@comcast.net by December 10.

Deadline for submission of articles, ads, and photos for the Gazette is the 20th of each month.

Full Moon	**Last Quarter Moon**	**New Moon**	**First Quarter Moon**
December 8, 12:37 PM. PST	December 16, 9:42 AM. PST	December 23, 1:43 AM PST	December 30, 2:03 AM. PST



Club Officers			
President	Peter Abrahams	(503) 699-1056	telscope@europa.com
Past President	Candace Pratt	(503) 296-6758	candace@europa.com
VP Members	Doug Huston	(503) 629-8809	geometer31415@aol.com
VP Observing	Scott Turner	(503) 788-6484	kings1@attbi.com
VP Community Affairs	Padraic Ansbro	503-349-3864	whiteowl@ansbro.com
VP, Communications	Matt Brewster	(503) 740-2329	brewster@teleport.com
Treasurer	Ginny Pitts	(360) 737-0569	vepitts@comcast.net
Secretary	Ron Forrester	(503) 504-8071	rca@skyhackers.org
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Web Master	Dareth Murray	(503) 656-1293	dareth@cablerocket.com
Alcor, Historian	Dale Fenske	(503) 256-1840	fenskedf@juno.com
Library Director	Jan Keiski	(503) 293-3281	jikeiski@comcast.net
Telescope Director	Jeff Henning	503-656-3041	j42h@aol.com
Media Director	Ron Forrester	(503) 504-8071	rca@skyhackers.org
IDA Liaison	Bob McGown	(503) 244-0078	r_mcgown@msn.com
OSP Liaison	Dareth Murray	(503) 656-1293	dareth@cablerocket.com
Camp Hancock Liaison	Glenn Graham	(503) 579-1141	the.grahams@verizon.net
Subscription Director	Larry Godsey	(503) 675-5217	larrygodsey@att.net
SIG Director	Matt Brewster	(503) 740-2329	brewster@teleport.com
Youth Programs Director	Jenny Forrester	(503) 504-8071	jenny@theforrest.org

President's Message

By Peter Abrahams
December 2003

2003 was an excellent year for amateur astronomy. The Mars opposition was a great opportunity for public outreach; a fantastic object for visual observation; and especially an attention-getting notice of what is happening in amateur astronomical imaging. Although I'm not active in this area, it seems to me that digital imaging is the most 'happening' section of amateur astronomy.

RCA continued to move into the electronic era this year, there are about 300 persons on the email list, meaning we can reach most members using that medium. And electronic publishing of the Gazette is now reaching most members; no doubt this will not be seen as progress by everyone but it certainly helps with some serious financial problems for the board.

It is likely that 2003 will be remembered as the year RCA began its biggest project; to locate & acquire an observing site. There is now a functioning & effective committee working towards this goal. Watch your Gazette for an announcement.

I hope you had a good sidereal year, and that 2004 is even better.

- Peter Abrahams

RCA
MAGAZINE SUBSCRIPTIONS

One of the benefits of RCA Membership is reduced rate subscriptions to Sky & Telescope and Astronomy magazines. Sky & Telescope Magazine is $32.95 for one year. Astronomy magazine is $29 for one year or $55 for two years. For more information go to the RCA web site and click on: http://www.rca-omsi.org/siteindex.htm Then click on any of the magazine links. Larry Godsey, Subscription Coordinator, will be taking renewals and new subscriptions at the Magazine Table before General Meetings. Please Note: Allow two months for your subscription to be renewed.

Sky & Telescope Store Discount

RCA members who subscribe to *Sky & Telescope* are entitled to a 10% discount at the *Sky & Telescope* online store at: *http://skyandtelescope.com/shopsky* To get your discount, enter Rose City Astronomers when prompted for your club name during checkout at the *Sky & Telescope* online store.

Hubble Space Telescope Saturn photo Courtesy NASA and the Space Telescope Science Institute.

Oregon Star Party 2003

Amateur astronomers explore the universe

By Bob McGown

What do you call a gathering of 900 amateur astronomers and 600 at 6000' at Indian Trail Springs in the Ochoco mountains? The Oregon star party!

For 16 years amateurs have been gathering at high altitude, dark sky sites in Central Oregon. Oregon Star Party (OSP) is a non-profit organization headed by Chuck and Judy Dethloff and the many enthusiasts that make up the OSP executive committee. The logistics of the event is as tough to organize as a major convention. Signs, tents, a shower truck, dozens of portable outhouses, a latte wagon, vendors, volunteers and registration details all have to be taken care of months in advance. For more on the volunteers see this glowing thank-you by Chuck at the Oregon Star Party website: http://www.oregonstarparty.org/thanksvolunteers.htm

When it is good seeing, views of the Milky Way at OSP remind astronomical travelers of celestial observing in South America or the outback of Australia. Amateurs travel thousands of miles to experience these pristine conditions, to observe and photograph and then and share them with their colleagues.

Activities and Events

Three days of presentations included a blend of space and astronomy expertise under the dark skies of Oregon's Ochoco mountains.

Friday afternoon was the popular telescope walk-about with Mel Bartels, a local expert telescope builder. The diversity of telescopes would have astounded Galileo! There were visual and CCD instruments in a field of telescopes built with a variety of lenses and mirrors. There were many unique instruments for viewing the stars. One RCA member, Dan Gray, had first light on his 28" innovative string telescope. There were truss Newtonians, piggy backed refractors, solar scopes, cadiodioptic and giant binoculars. The walkabout took about two hours due to the huge number of folks (about 150) who attended, as well as the many varied scopes to be seen.

Richard Berry, former editor of *Astronomy,* gave a riveting presentation that left us in awe of the latest discoveries about the our own local arm in the Milky Way galaxy. Richard is a professional astronomer with numerous excellent books on astronomy, telescope making, and CCD imaging to his credit.

Saturday evening Dr Tim Parker, of Jet Propulsion Laboratory, gave the keynote presentation. He discussed the reasons for the choice of landing sites of the three MER rovers and six Mars missions now on their way to the red planet. His research as an astro geologist has contributed to the site selection criteria. NASA's Spirit rover will descend into the crater Gustav in January 2004. This landing choice was made from a menu of options that Dr. Parker's group had recommended. The lander 'Opportunity' will be landing in Meridiani Planum on January 25th, almost the same time that Spirit lands.

The extra-large Youth Tent this year, ably organized by Jenny Forrester, introduced a host of all kinds of activities from water bottle rockets to telescope making assisted by a professional to the more than 120 kids attending OSP. The 6" telescope that was made that day was raffled off on Saturday and won by one of the kids who helped build it.

The annual OSP Meteorite hunt is always a meteoritical show and tell with lecture and a hunt for meteoretical nickels mined at Sudbury crater in Canada. This has proven to be an entertaining and rewarding experience for all ages, where the winners, kids and adults, get to keep real meteorites. I have enjoyed giving this talk and meteorite hunt for the last 5 years.

(Continued on page 4)

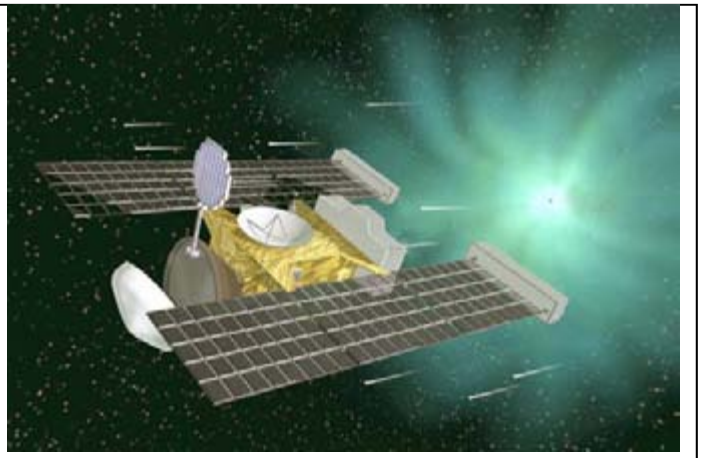
NASA's Space Place

Stardust

by Patrick L. Barry and Dr. Tony Phillips

Philosophers have long sought to "see a world in a grain of sand," as William Blake famously put it. Now scientists are attempting to see the solar system in a grain of dust-comet dust, that is.

If successful, NASA's Stardust probe will be the first ever to carry matter from a comet back to Earth for examination by scientists. It would also be the first time that any material has been deliberately returned to Earth from beyond the orbit of the Moon.



(Continued on page 7)

Oregon Star Party 2003 *(Continued from page 3)*

Mars observations

With Mars at its closest approach in 60,000 years and perfect position in the sky, there is a Mars mania amongst the observers.

For the 4th year in a row, OSP offered the Mars Rover Race. This is a rover obstacle course where kids and adults challenge their skills with their kit-built Mars rover. This year race commissioner Rob Brown had his hands full with the number of contestants and the skill of their rovers. A good time was had by all.

Mars Sketch at left – by R. McGown
August 2003

In the Ochocos, once the curtain of night fell, amateurs shared views of deep sky treasures and nebula along with Mars' closest approach, and unparalleled views of Saturn Jupiter, Uranus and Neptune, exotic emission and dark nebula and exploded stars called planetary nebula. It is a rich observing field that never grows tiresome.

As we walked through the telescope field this year, we marveled at who we might encounter amongst the enthusiasts. We might come across one of the NW scientists camping out amongst the stars with their home made telescopes contemplating the cosmos. This year, camping out in the ponderosa pines, we found Shane Larson, gravitational theorist, who had brought a truss Dobsonian telescope he built in his garage. When not working on the LISA gravitational space array project at Cal Tec, he is happy viewing the deep sky objects at OSP.

Despite the forest fires burning 70 miles to the west this year, the smoke did not dim the enthusiasm of most observers. Many stayed up until the dawn to see Saturn and the Orion nebula. Next year, with the work of Chuck, Judy and the committee, we will return to the Oregon Star Party to once again touch the stars.

In 2004, on August 12-15, we hope to take advantage of the Perseid Meteor shower as well for ultra extraordinary observing!

YOUNG ROSE CITY ASTRONOMERS

The November, 2003 JRCA meeting was the last kids meeting until June 2004! Not to worry, children ages 4 through 12 can attend special Junior Rose City Astronomer meetings during the months of June, July and August from 7:30 p.m. until 9:00 p.m. during the General RCA meeting. These special meetings will provide opportunities to learn about Astronomy, through games and other fun activities!
Even though, JRCA will no longer be available during the school year, kids are welcome to visit the JRCA web page for fun astronomy facts and interesting sites. See you in June, 2004!! Concerns or questions? Please contact Jenny, the JRCA Program Director at Jenny@theforrest.org

Volunteer Acknowledgments

Rose City Astronomers want to acknowledge Rob Guttridge & Marv Harner for graciously donating their time and knowledge of astronomy to the families of Athey Creek Middle School. On October 22nd at 7:00 PM RCA held a star party for Athey Creek Middle School although the weather did not cooperate we held the presentations inside and it was a well received event. Thanks again to both gentlemen for representing the RCA in such a fine manner!

Also a belated but well deserved thanks to:

Scott and Abby Turner, Chuck and Judy Dethloff, Matt Vartanian, Paul Swanson, Mark Dakins, David Nemo, Jeff Jones.

For representing the RCA at the Gales Creek Diabetes Camp for a star party this summer. Another well received event with good feedback from the participants.

We received a thank you letter stating, "Your special camp star party program helped enhance each camper's personal experience for his or her week at camp. We again thank you for your time, consideration and your special talents that made their camping experience again a huge success for 2003."

Padraic Ansbro VP Community Affairs

Observing Site Committee Gets Organized

After several weeks of conversation on the E-mail Bulletin Board about securing club-controlled observing sites, 13 RCA members recently met face-to-face to form an Observing Site Committee to begin seeking that goal.

At it's first meeting, the Committee members agreed that their purpose would be to lead and coordinate efforts of the Rose City Astronomers (RCA) in securing and managing a variety of observing sites for private use by members, and for community outreach and special events organized by the RCA.

As a long-term goal, members also agreed that the club should aim for a variety of observing sites to serve different purposes, ranging for example from close-in and convenient ("something better than my driveway") - to nearby and darker - to remote and darkest.

Next steps include defining observing and site characteristics of different types of sites, developing criteria to eventually use in evaluating potential sites, seeking feedback from all club members on these ideas, and developing a fundraising program.

Anyone interested in learning more about the work of the Observing Site Committee should check out the Committee's Webpage on the RCA Website.

CLASSIFIED ADS

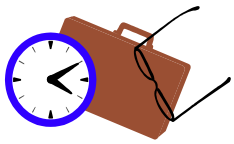
Run your non-commercial astronomy related classified ad in the monthly Gazette. Rates are reasonable (free!)

For Sale: Coulter 8" F/4.5, red-tube $249; Celestron C-8, orange sandcast model w/tripod & wedge (as is) $489; 8" f/8 Newtonian, heavy clock driven equatorial mounting $375. Call (541)758-8326 evenings.

For Sale: 4.7 inch Sky View Pro refractor on Sky View Pro mount with dual axis control. Like new. Extras include: V-block fringe filter, 7X50 right angle correct image mirror diagonal, glass solar filter. See at www.starstuff.com/forsale.htm $695. Contact Seans Astronomy Shop 360-666-6882 or Bob Duke duke@99west.com

For Sale: Celestron Nexstar 4 with New tripod and camera adapter + Nikon ring $375.00 (503) 363-0490

For Sale: Meade 10" Starfinder equatorial reflector with motor drive, 26mm Super Plossl eyepiece, #126 2x Barlow lens, reflex finder, factory supplied dust covers, and includes a professionally built wood carrying case, all for $750.00. Call Rick Phelps, 971-219-6983.



BOARD MEETING MINUTES

(EDITED)
NOVEMBER 3, 2003
Ron Forrester

Present: Ron Forrester, Doug Huston, Carol Huston, Larry Godsey, Larry Deal, Jeff Henning, Matt Brewster, Sameer Ruiwale, Padric Ansbro, Peter Abrahms, Debrah Hirsh, Matt Vartanian, Scott Turner, Jan Keiski

Treasurer – Ginny: $15,532.47

Programming – Matt: Ken Croswell in November. Holiday party for December – will be getting even more lasagna this year to make up for being short on main dishes. We may extend the alphabetical range for main dishes in order to further deal with this. January is the information (SIG) fair. Will try and have the complete observation schedule ready for this meeting.

Membership – Doug: 350 active members – average attendance for monthly meetings has been about 170. Still some problems with people not getting the newsletter, will work it out with Larry.

Star Parties – Scott: Nominal

Community Affairs - Padric: Had a star party at Athey Creek school which went very well. About 20 parents and kids there. A couple of requests for star parties next year.

Sales – Sameer: $293 for sales in November. As of today, we have 14 sign-ups for the Star Tools package.

New Members – Carol: Will put together a new member piece for the January info fair. And will be doing a new member orientation in February, one month ahead of the observing season.

Light Pollution - Bob: Nominal

AL - Dale: Nominal

SIG's - Matt: Nominal

Magazine - Larry: Nominal

Editor - Larry: Nominal

Library - Jan: Nominal

YRCA - Ron: Moving to summer only kids meetings

Webmaster - Dareth: Nominal

OMSI - Peter: Nominal

Telescope Library - Jeff: Donation of the Edmund Scientific "red ball" 4.5" reflector scope.

Copying - Debrah: Anticipating a storm for SIG copies, please get them to Debrah as soon as possible.

Phone Line: Larry Godsey November to December

continued...

Elections Committee

Carol announced the slate for 2004 election including nominations for:

VP of Observing	-	Matt Vartanian,
Secretary	-	Ken Cone

Peter will present the slate at the November general meeting.

Observing Site discussion

Initial discussion with member guests (David Nemo, Paul Swanson, Mark Seibold and one other gentleman) ensues.

Scott motions that we provide a vote of confidence for the formation of an RCA observing site investigating committee who will report back to the board on a regular basis. Doug seconds the motion. Passed unanimously.

SPECIAL INTEREST GROUPS

ASTRO IMAGING SIG
Date/Time: Thursday, December 18 at 7:30 pm.
This special interest group is intended for anyone interested in learning or sharing information and ideas about FILM and DIGITAL photography as it applies to aesthetic astronomy picture taking.
Place: Sean's Astronomy Shop.
For information please contact:
Mike Cole @ 360-604-7865 mrcole@earthlink.net

TELESCOPE MAKING WORKSHOP
Date/Time: Saturday, December 13, 10 AM—3 PM
Place: Technical Marine Services Inc, 6040 N. Cutter Circle, Swan Island.
Contact: Jim Girard argojg@comcast.net for more information.

Please Note: SIG Meetings are subject to change without notice. Please confirm with the contacts listed.

RCA Newsletter Editor Wanted.

Due to increasing commitments elsewhere your Rosette Gazette editor is seeking a replacement. Editorial control of the newsletter and a voting position on the RCA Board! Believe me it is challenging, but great fun! I truly regret having to give it up. My desire is to complete my twelfth issue, which is February 2004, then hand it over to the new editor on February first. I promise to provide as much, or as little help for the new editor as he or she wants. Please use my contact info in the board directory on page two for any questions you have.

Larry Deal
RCA Newsletter Editor

Stardust *(Continued from page 3)*

And one wouldn't merely wax poetic to say that in those tiny grains of comet dust, one could find clues to the origin of our world and perhaps to the beginning of life itself.

Comets are like frozen time capsules from the time when our solar system formed. Drifting in the cold outer solar system for billions of years, these asteroid-sized "dirty snowballs" have undergone little change relative to the more dynamic planets. Looking at comets is a bit like studying the bowl of leftover batter to understand how a wedding cake came to be.

Indeed, evidence suggests that comets may have played a role in the emergence of life on our planet. The steady bombardment of the young Earth by icy comets over millions of years could have brought the water that made our brown planet blue. And comets contain complex carbon compounds that might be the building blocks for life.

Launched in 1999, Stardust will rendezvous with comet Wild 2 (pronounced "Vilt" after its Swiss discoverer) on January 2, 2004. As it passes through the cloud of gas and dust escaping from the comet, Stardust will use a material called aerogel to capture grains from the comet as they zip by at 13,000 mph. Aerogel is a foam-like solid so tenuous that it's hardly even there: 99 percent of its volume is just air. The ethereal lightness of aerogel minimizes damage to the grains as they're caught.

Wild 2 orbited the sun beyond Jupiter until 1974, when it was nudged by Jupiter's gravity into a Sun-approaching orbit-within reach of probes from Earth. Since then the comet has passed by the Sun only five times, so its ice and dust ought to be relatively unaltered by solar radiation. Some of this pristine "stuff" will be onboard Stardust when it returns to Earth in 2006, little dusty clues to life's big mysteries.

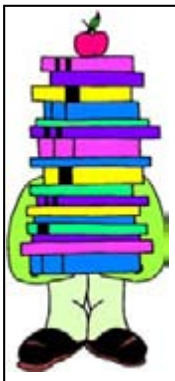
To learn more about Stardust, see the mission website at http://stardust.jpl.nasa.gov
Kids can play a fun trivia game about comets at http://spaceplace.nasa.gov/stardust

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

RCA Photo Gallery

I took this image of the lunar eclipse about 6:50 PM Saturday 11/08/03 from my front yard. I used a Nikon Coolpix 4300 camera, through a Stellarvue AT1010 refractor, with a William Optics DCL-28 eyepiece.

Rob Guttridge



RCA Library

The Rose City Astronomers maintains a comprehensive club library of astronomy related articles, books, CD-ROMs and videos. These items can be borrowed by members through checkout at the general meetings for a period of one month with renewals available by phone or e-mail to the club library director,

Jan Keiski (jikeiski@comcast.net)
(503) 293-3281.
Visit the RCA library web page at:
http://www.rca-omsi.org/library.htm

December 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

December 2003

Dec 1	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
Dec 13	Sat	Telescope Making Workshop	Swan Island	10 AM-3 PM
Dec 15	**Mon.**	**Holiday Potluck!**	**OMSI**	**7:30 PM**
Dec 18	Thu	Astro Imaging SIG	Seans Astronomy	7:30 PM

January 2004

Jan 5	Mon.	Board Meeting	OMSI Classroom 1	7:00 PM
Jan 19	**Mon.**	**General Meeting**	**OMSI Auditorium**	**7:30 PM**

The RCA General Meeting falls on the third Monday of each month. We usually meet in the Auditorium at OMSI, next to the Murdock Planetarium. Occasionally the meeting is held in Murdock Planetarium. Check here each month for details, or look us up at the RCA web site (http://www.rca-omsi.org).

RCA CLUB INFORMATION
Message Line: (503) 255-2016
Web Site: http://www.rca-omsi.org

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