

The

Rosette Gazette

Volume 16, Issue 1

Newsletter of the Rose City Astronomers

January, 2004



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Hubble Deep Field above courtesy R. Williams (STScI), the Hubble Deep Field Team and NASA

Moon photos below courtesy David Haworth

All are welcome at the annual RCA Information Fair January 19th!

The January meeting features our annual Information Fair. This is a great opportunity to get acquainted, or reacquainted, with RCA activities and members.

There will be several tables set up in OMSI's Auditorium with members sharing information about RCA programs and activities. The library will be open with hundreds of astronomy related books and videos. If you prefer to purchase books the RCA Sales table will feature a large assortment of Astronomy reference books, star-charts, calendars and assorted accessories.

Learn all about observing programs such as the Messier, Caldwell and Herschel programs. There is a program for every interest including Moon, Planets, Asteroids and many more. Find out about our Telescope Library where members can check out a variety of telescopes to try out. Find out about the new observing site committee and special interest groups. Special interest groups include Cosmology/Astrophysics, Astrophotography and Amateur Telescoping Making interests.

Above all get to know people who share your interests.

The Fair begins at 7:30 pm, Monday January 19th in the OMSI Auditorium. Enter at the Planetarium Entrance right (north) of the Main Entrance. Proceed to your right to the Auditorium

THE ROSE CITY ASTRONOMERS 2003 Galileo Service Award

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

(Continued on page 7)

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

Full Moon

January 7, 7:40 AM. PST

Last Quarter Moon

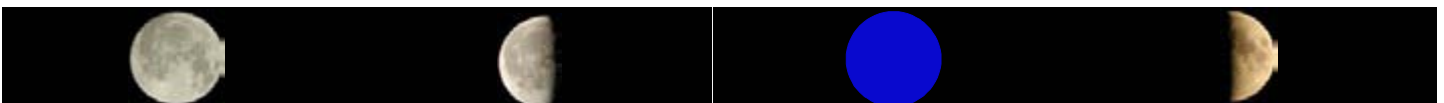
January 14, 8:46 PM. PST

New Moon

January 21, 1:05 PM PST

First Quarter Moon

January 28, 10:03 PM. PST



Club Officers			
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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.



President's Message

By
Peter Abrahams
January 2004

The RCA board has two new members this month, Ken Cone is our new secretary and Matt Vartanian is going to be planning star parties for us this year. Neither job is trivial, and Matt in particular will be spending some time on the

job (I wasn't going to say that before Jan. 1). RCA owes a debt of gratitude to outgoing officers Ron Forrester and Scott Turner. It takes a lot of work by a lot of volunteers to keep RCA going. The big event for 2004 will be the transit of Venus, which will not be visible here, but I am sure the event coverage will have much of interest. There will be a lot of observers using hydrogen alpha filters for this transit, which will add much to the observation. Many RCAers saw the transit of Mercury a few years ago. Venus has an atmosphere that is visible as a glowing ring during a transit, and is much larger than Mercury, so this event really would be worth a trip to Europe. Or you can sign up with Uncle Sam & take a free trip to Iraq, where the weather will be clear and the transit higher in the sky than from Europe.

- Peter

If Dog's Could Be Astronomers

Harvey Miller

Came from Adelphi late last night,
Mars was real high, placed about right.

But tomorrow I have work, scratch my Nexstar,
instead it's my Shorty, sets faster, so thar.

Grabbed the tripod, all ready to go,
Frankie was watching, a Dachshund's hello.

Opened the door, set up my gear,
Frankie, in wonder, lifted her ear.

Came back for my seat and just about then,
she wagged her tail, as if asking when (?).

Could she know what I'm doin' while out and about?
Is she hip to some cluin' under that snout?

But time was a wastin', and Mars was real high.
Still, aiming my Shorty was like a goodbye.

For Frankie is stuck, low, on the ground,
In all her outrage, not nearly a sound.

My neighbors, all sleeping, alone's my lament,
cause even my Holli was in bed, all spent.

But Frankie's still up, by hook and by crook,
maybe she'd smile, if I gave her a look?

It's Frankie and me, alone in the void,
would it really matter, am I paranoid?

I know it sounds silly, and no one can win,
But she may learn something and it's not a sin.

Lined up my Finder, Mars centered real nice,
had picked up a zoom lens, someone's advice.

What with my Barlow the Shorty will fly,
One hundred power and aimed to the sky.

Oh what a site, Syrtis Major was clear,
And then, just as sudden, a whimper I hear.

It's Frankie, my baby, looking at me,
through our front window, up high, so she'd see.

She wants me to come home, get out from the dark,
But if she took one look, I know that she'd bark.

Her way of saying (bow)-WOW...bow wow indeed,
and maybe, while outside, she'd go for a pee.

But I think I know better, she's just a small dog,
in a world full of wonder, not even a cog.

Maybe I owe her, and maybe I don't,
Her dog eyes through Shorty? I can't and I won't.

She hates to see mirrors, she licks at the glass,
She chews all my plastic, shows anger toward brass.

She's real smart I know, learned all the commands,
As for looking at Mars, she'd misunderstand.

So, after I finished, I put it back right,
till dark skies come calling on another night.

Frankie and I, now, are playing alone,
in my house with Frankie, my dog and her bone.

(c) 2003 by Harvey Miller

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The 2004 All- Arizona Messier Marathon

The 2004 All Arizona Messier Marathon is scheduled for Saturday March 20th, 2004. The event will be held at the same site as in previous years, the Farnsworth Ranch, About 30 miles south of Arizona City, AZ. The site is located approximately halfway between Phoenix & Tucson. This year's event occurs on the night of the new moon and 109 objects should be available to observe, with M30 being the object most likely impossible.

The All Arizona Messier Marathon has become the most successful event of it's kind. In the past three years, it has seen over 30 observers do complete marathons of 110 objects! The pristine Arizona skies & mild weather make for an enjoyable experience that has drawn observers from over 10 states, Canada & as far away as Australia.

The event is free and there is no registration required, Just show up, get an observing list and Observe. What could be easier?

For further information go to:
<http://www.saguaroastro.org/content/messier.htm>.

Or contact:

A. J. Crayon: acrayon@mindspring.com

Jack Jones: spicestar@cybertrails.com

Rick Tejera: SaguaroAstro@aol.com

MARS ROVERS HEAD FOR EXCITING LANDINGS IN JANUARY

OMSI OMSI to Host Mars Party Jim Todd

As Mars Exploration Rovers head for landings on the red planet in January, the Oregon Museum of Science and Industry will sponsor a special Mars party to view the landing of the first of two U.S. crafts, Saturday, January 3, 2004 from 8:00 p.m. to midnight. Viewers will be able to watch in the OMSI Auditorium via a non-stop live link from NASA's Jet Propulsion Laboratory (JPL) control center in Pasadena, Calif.

NASA's robotic Mars geologist, Spirit, embodying America's enthusiasm for exploration, must run a grueling gauntlet of challenges before it can start examining the red planet. Spirit's twin Mars Exploration Rover, Opportunity, also faces tough martian challenges.

"This is a very exciting event and unique opportunity to learn more about Mars as we did from the Pathfinder in 1996," said Jim Todd, OMSI Planetarium Manager. "This is a great stepping stone to understand both the past and future of Mars as our neighboring planet," he added. "The risk is real, but so is the potential reward of using these advanced rovers to improve our understanding of how planets work," said Dr. Ed Weiler, associate administrator for space science at NASA Headquarters, Washington.

Spirit is the first of two golf-cart-sized rovers headed for Mars landings in January. The rovers will seek evidence about whether the environment in two regions might once have been capable of supporting life. Engineers at NASA's JPL, have navigated Spirit to arrive early on Jan. 4, 2004, Universal Time (evening of Jan. 3, PST/EST). Spirit will land near the center of Gusev Crater, which may have once held a lake. Three weeks later, Opportunity will reach the Meridiani Planum, a region containing exposed deposits of a mineral that usually forms under watery conditions. Since their launches on June 10 and July 7 respectively, each rover has been flying tucked inside a folded-up lander. The lander is wrapped in deflated airbags, cocooned within a protective aeroshell and attached to a cruise stage that provides solar panels, antennas and steering for the approximately seven-month journey.

Spirit will cast off its cruise stage 15 minutes before hitting the top of the martian atmosphere at 5,400 meters per second (12,000 miles per hour). Atmospheric friction during the next four minutes will heat part of the aeroshell to about 1,400 C (2,600 F) and slow the descent to about 430 meters per second (960 mph). Less than two minutes before landing, the spacecraft will open its parachute. Twenty seconds later, it will jettison the bottom half of its aeroshell, exposing the lander. The top half of the shell, still riding the parachute, will lower the lander on a tether. In the final six seconds, airbags will inflate, retro rockets on the upper shell will fire, and the tether will be cut about 15 meters (49 feet) above the ground. Several bounces and rolls could take the airbag-cushioned lander about a kilometer (0.6 mile) from where it initially lands. If any of the initial few bounces hits a big rock that's too sharp, or if the spacecraft doesn't complete each task at just the right point during the descent, the mission could be over. More than half of all the missions launched to Mars have failed.

The Mars party will take place in OMSI's auditorium on Saturday, January 3 at 1945 SE Water Avenue, from 8:00 p.m. to midnight. The event is free, and is appropriate for science enthusiasts of all ages.

To view images of the Mars Exploration Rover log onto the NASA website at <http://photojournal.jpl.nasa.gov/gallery/snt>. For general OMSI information, call 503-797-4000, or check the web at www.oms.edu.

The European Space Agency has scheduled the Mars Express / Beagle 2 rover to land on Mars on Dec. 24. OMSI will be closed for the Christmas holiday on Dec. 24 & 25. Images from the Beagle 2 will be put on the Pacific NW Skies planetarium show at OMSI beginning Dec. 26.

Observing Site Committee

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.

Next Meeting: Tuesday January 6, 2004 @ 7:30 PM - 9:00 PM

Harland Financial Solutions
400 SW 6th Avenue, Portland
Conference room on entry level. Sign-in at Guard Station

For More Information Contact: [David Nemo](mailto:david6366@msn.com) <david6366@msn.com>

RCA Photo Gallery



A color mosaic of M-31. The image is 9-panels. The image was acquired using Maxim and processed in Adobe Photoshop. The image was taken at ARGO this summer. The scope is an Astro-physics 130 F6, the mount is an Astro-physics 900GTO mount. The camera is an SBIG ST10XE. Terry Johnson



SPECIAL INTEREST GROUPS

ASTROPHYSICS / COSMOLOGY

Date/Time: Thursday, January 22, 7 PM.
Speaker/Topic: David Tevr 'Archeo-Astronomy
Place: Linus Pauling Complex, 3945 S.E. Hawthorne St.,
Portland.
Contact: [Bob McGowan](mailto:Bob.McGowan@comcast.net) (503-244-0078)
or [Doug Huston](mailto:Doug.Huston@comcast.net) (503-629-8809) for more information.

ASTROMETRY, PHOTOMETRY, & SPECTROSCOPY SIG

For those interested in the use of CCD's as applied to some of the scientific aspects of astronomy, particularly astrometry, photometry, and spectroscopy.
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.
For information please contact:
Mike Cole @ 360-604-7865 mrcole@earthlink.net

TELESCOPE MAKING WORKSHOP

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 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-oms.org/library.htm>

Two solar photos I captured in mid October with my new 40mm Coronado h-alpha mounted on a Meade 60mm EXT.

Mark E. Seibold <mark.atcosmiclight@juno.com>



BOARD MEETING MINUTES

(EDITED)
DECEMBER 1, 2003
Ron Forrester
Ken Cone

Present:

Peter Abrahams, Padraic Ansbro, Matt Brewster, Ken Cone, Dale Fenske, Ron Forrester, Larry Godsey, Carol Huston, Doug Huston, Jan Keiski, Bob McGown, Dareth Murray, Ginny Pitts, Sameer Ruiwale, Deborah Smith-Hirshmann, Scott Turner, Matt Vartanian

Treasurer – Ginny: \$11,634 in our accounts. In the process of verifying current account balance, Ginny will go back and re-verify books from earlier RCA accounts. Ginny will contact Vern to reconcile some issues we're having with the accounting software. If necessary, we may hire a professional accountant to audit our books. Scott can recommend the names of accounting groups as a resource for this project.

Programming – Matt: December 15th RCA general meeting will be a potluck Holiday Social, held in the OMSI Café. 16 tables are available for food and swap meet. A projector and screen will also be available for a presentation of the year's best photos. Send photos to Jan Keiski. Party begins at 7pm, need **volunteer help** to set up tables and food starting at 6pm. Dareth suggested we move the appetizer table to a separate location where people who arrive early can graze.

Members attending the December meeting need to keep within the RCA area and not go into OMSI exhibits.

Topic for the General RCA meeting on January 19th will be the Information Fair. The RCA site committee will have a table at this event.

Membership – Doug: 328 member families. Attendance of 200 at November general meeting. A membership table will not be set up at the December meeting.

Star Parties – Scott & Matt V: Report from Matt Brewster re Kah Nee Tah Event. Made contact with Black Butte ranch and Eagle Crest for Messier Marathon in March 2004. Eagle Crest has a large soccer field for observing and cars can be pulled up to unload. They have stated they are willing to waive any slippage fee based on our average MM attendance (110-138/yr for 10 years). This may or may not affect the room cost (avg. for queen/suite \$70 – 4 bedroom condo is \$250 a night) in any significant way. We would stipulate cancellations would be the responsibility of the party canceling, not the RCA club. Matt will visit the two sites soon with plans to pick a site for 2004 Messier Marathon. New moon is March 20th and there will be a group of 100 people already there, so only 40 rooms available, could be an issue. Carol mentioned potential to sign up and pay in advance for Saturday night banquet. Drop dead date on decision for this is by February newsletter.

Community Affairs – Padraic: nominal

Sales – Sameer: \$2113 includes \$1470 from Software.

New Members – Carol: Carol will have a new member table at the Information Fair in January. She is planning a separate new members orientation meeting for February.

Dark Sky Association – Bob: Bob and Dale walked around OMSI and inventoried the various lighting, including various louvers and baffles. Called Bill Hughes for advice on Victorian street lights around OMSI, They are maintained by the County. Bob also changed surrounding business lights from steady to motion detectors. This effort should help with OMSI star parties.

AL – Dale: nominal

SIGs – Matt B: nominal

Magazines – Larry G: nominal

Editor – Larry D: Larry will step down as editor as of the March 2004 issue. Peter will go through a list of prior volunteers compiled by Carol, then if no candidates pop out will post a notice to the general membership.

Library – Jan: The library catalogue is now a .pdf list on the RCA web site. Thanks to Jan and her team for this effort!

YRCA – Jenny: Will not be doing children's meetings until Summer 2004.

Webmaster – Dareth: nominal

OMSI – Peter: nominal

Telescope Library – Jeff: nominal

Copying – Deborah: nominal

Phone line: - Matt V will run the phone line for December.

Ron will archive past board minutes on CDs, and will give one to Peter, and one to Ken.

Observing Site committee seems to be getting off to a great start, David Nemo is doing a great job organizing it. General agreement RCA could benefit from this effort. Peter attended a Site committee meeting.

Peter will be away for January board meeting, Doug will run the meeting.

Carol has past 5 years of membership records in electronic form and will convert to CD. Prior paper records will be saved until after the financial audit, then destroyed.

Dareth made a motion to spend up to \$80 for plaques to present two Galileo Service Awards for 2003. Dale seconded motion. Unanimously passed.

2003 Galileo Service Award (Continued from page 1)

To recognize the debt that the Rose City Astronomer's owes to those whose dedication and work have made the club what it is today, the Board of Directors created the Galileo Service Award in 2002. 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. As such, members who receive the Galileo Service Award will have exhibited 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.

Three outstanding members received this award for 2003. They are Jim Reilly and Ron Thorkildson and Carol Huston. They didn't suffer the inquisition of Galileo but earned their colleagues' respect through years of hard work!

Jim Reilly – Jim was one of the founding members of the Rose City Astronomers. He has been one of those people who is fairly low key in his work on RCA programs. However, he has been there for 13+ years actively supporting RCA programs. Jim has served on the board since the early 90's in various positions, VP of Programming, Secretary, Treasurer, and is currently assisting in the RCA Library. He has assisted with telescope making, member programs and activities, helped establish and put on the OSP, plus writing up his observing experiences to share with others. Jim is also an avid back-packer and photographer of the outdoors.

Ron Thorkildson – Ron was also one of the very early members of RCA. He has served in several capacities on the board, including Treasurer and Sales Director. He founded the magazine and sales programs for RCA, and ran those programs for many years, establishing a benefit that members still enjoy. For several years, Ron contributed a monthly column to the newsletter on seeing double stars. In addition,

Ron is currently the founder and promoter of the weather SIG.

Carol Huston - Many years ago, in a galaxy far, far away, there was a team of two women who initiated many projects in our Rose City Astronomers Club. On one of these projects, they organized a team of amateur astronomers who observed 945 deep sky observations at the limit of telescopic visual acuity. Several years later, this project, representing the work of more than two dozen observers and hundreds of hours of research, analysis, observation, documentation, distillation, and dedication, was published by The Astronomical League (AL) as The Herschel II Observing Guide. At that year's Texas Star Party, these remarkable women were awarded the AL's Omega Centauri award for this work. Last year we honored the co-author of this guide, Candace Pratt, with RCA's Galileo Service Award. This year we are proud to award this honor to Carol Huston who has done so much for the club.

Among a few of the important activities Carol has taken on over the past 13 years are organizing the annual Messier Marathon, serving on the board as Secretary, VP of Star Parties, and VP of Membership, and more recently has been the club's New Member Advisor. She developed such programs for the RCA as the visitors' Welcome Packet and the New Member Packet.

Congratulations to all three of these outstanding RCA members who have joined the select group of Galileo Service Award winners!

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. 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

A FIELD USE “REVIEW” OF CELESTRON’S 9.25” NEW ADVANCED SERIES GT (Model # 11046).

Tim Crawford Arch Cape, Observatory

Because of other structures and trees I am not able to see all the DSO’s (Deep Sky Objects) that might be visible from my Observatory and I like to attend star parties.

I started looking for a new travel scope this past spring after the Club’s Messier Marathon party. It was clear that my Meade ETX 5-inch was not adequately up to finishing the Herschel 400 list, at least for my tired old eyes. My faithful Meade five-inch did, however, let me finish up my Messier list at the Oregon Star Party this year. Being over 60 with a bad back I wanted the largest GoTo scope that I could afford to purchase that would break down into manageable components; suitability for imaging was not an objective (but nice to have if possible).

My observatory has a pier mounted 12 inch LX 200 classic, which has excellent tracking and pointing functions, but is a monster for me to lift. The smaller Mead LX200 10 inch scope was also simply too heavy for me to consider lifting the fork/scope portion up on to a tripod, especially if using a wedge.

While there is nothing-wrong with the 8-inch fork mounted scopes (either Celestron’s or Meade’s), as the component weights are comfortable, I was still hoping for something with a larger aperture. Celestron’s fork mounted 9.25 models were tempting but the component weights were still a bit heavier than I really wanted to deal with.

I first learned of the Celestron 9.25 advanced series, on a Polaris mount, on one of the Yahoo news groups. I checked the Celestron website to see what the design and specifications were and then I contacted Celestron on the phone and asked for the exact component weights, which I was provided. The price was also very attractive and hard to resist. My decision was made; this was going to be my next traveling scope.

At the time I placed my order with Sean’s Astronomy, Battle Ground, WA, in July Celestron had yet to ship one of these units and some participants in one of the news groups were questioning the suitability of the Celestron CG5 mounting for the 9.25. Trusting in Celestron to deliver what they promised, a beefier CG5 mount, I was not deterred.

While I had hoped that the scope would arrive before the OSP it did not arrive at Sean’s until the 18 th of September, where I was able to pickup it up the next day. The following day I unpacked the three cartons that everything is packaged in and set the scope up; clouds prevented any viewing that evening.

First light was not until the next evening but as I had neighbors over to the observatory for some DSO observing through the larger scope I was not able to start with the 9.25 until about 11:00 PM. I did a rough polar alignment of the mount, through the central alignment “hole” provided and used the index marks to set the DEC and RH axis. You should understand that the DEC index mark results in the tube being off center rather than parallel with the RA axis. The index marks are



simply markings that Celestron has placed at a certain position on each axis as a “home” position.

I entered the date, time, and my longitude and latitude and then let the hand control guide me, via the Auto Align feature, to three alignment choices; if a star was not visible, then a quick press of the undo button would bring up another star until three were able to be centered in what I judged to be the center of the eyepiece. This initial setup did not result in good pointing (objects in eyepiece and reasonably centered) and the tracking was poor (ability to keep image in field of view). As subsequent events demonstrated this was not the NextStar’s fault but only the result of my poor Polar positioning and probable failure to use a cross hair eyepiece for centering. As it was getting late I finally stopped for the first evening after visiting some old friends (DSO’s)

As an experiment, the next evening I centered the DEC axis with the mount and off of the index mark, The RA was placed on the index mark and then I did a polar alignment with the scope and mount, using an illuminated, double crosshair, eyepiece (which eyepiece, by the way, was used for all future centering of alignment stars).

(Continued on page 9)

CELESTRON'S 9.25" *(Continued from page 8)*

Wow, what a difference this made. Pointing accuracy was excellent as was the tracking. Visited many old friends then retired to my Observatory so I could get some Variable Star observing in before calling it a day. The next evening it was foggy and I spent more time reading the manual. I discovered that the NextStar controller had a Polar alignment option that could be used after the initial three star alignment from the index marks.

The following evening was clear, however, another neighbor arrived for a DSO tour in the Observatory but I was able to get to the 9.25 by 10:30, this time.

I started up the NextStar with both axes on the index marks as required by the NextStar controller, did the three star alignment and then choose the Polar alignment option. The scope slews to where it believes Polaris to be and you then have to manually adjust the scope, in both axis's, to center Polaris; this does cause the loss of the original alignment but the NextStar takes you back to the Auto Align option screen when you have finished with the Polar alignment so you can do a fresh 3 star alignment. I noticed this time that the alignment star slews were very close to the center position of the those chosen, anywhere from 1/2 degree to around 2 degrees off; where previously the chosen alignment stars were typically off around 15 degrees (although by the third star this gap generally lessened).

Again, pointing was what I would have to call excellent and the tracking was good. I challenged the NextStar program to find NGC, M and IC objects. Most were close to the center of the 16 mm eyepiece that I was using at the time; only occasionally did I have to bother centering an object. About 11:30 I centered M13 and took a short break; when I returned, 15 minutes later, M13 was still almost perfectly centered; had only moved a slight amount off center. This is excellent tracking that would probably require a solid drift alignment to see if any improvement was possible.

The scope was not used again until I traveled to Indian Trail Springs for the star Party on September 25th. Take down and packing went quickly.

I probably made a mistake by not insuring that the mount alignment "hole" in the Polar axis was reasonably centered on Polaris the first evening. I figured that if I was close to North with the tripod "north" leg it then I would try the Polar alignment feature after the initial three star initialization and see what happened. Finding and tracking did not go well for a while. In fact I had to do a total of four Polar alignment sequences before I achieved the desired tracking accuracy and finding accuracy. After this was done then it was pretty well setup for the remaining two nights. A lesson learned for the next time that I take the scope on a trip; I will endeavor to center the Polar axis alignment "hole" on Polaris prior to the initial startup; this will save a lot of time and anxiety [I actually

had installed, that day, a Polar Axis Finder showing the correct offset from Polaris but as the directions were not clear to me I did not want to loose time figuring out how to calibrate it and had not bothered to even center it up. The last day a fellow club member showed me how to set it up which I will do on my next trip]

The Second evening I started up with the Auto Align, then used the Polaris Align feature (for a control check); very little adjustment of the mount was required for a perfect centering of Polaris. Pointing and tracking then went well all evening. I also centered the scope on M30 and took a 20-minute break. When I returned it had just barely moved off center; another sign of a good alignment and good tracking.

As a reminder, except for first light, all alignment stars were centered using an illuminated, double crosshair, eyepiece; which I strongly recommend for anyone using a GoTo scope.

The few times that objects did not appear in the eyepiece (or I did not think they were-working on finishing the Herschel list) I simply used the "Precise Goto" function which takes the scope to a star near the DSO and has you center it before slewing over to the DSO. This appeared to work quite well and removed any doubt about whether or not I had the correct field of view. The names of some of the stars that the precise Goto presented on the hand controller were occasionally unknown to me; however, I let the scope slew anyway and the stars chosen were usually the brightest in the eyepiece or within a degree or two at most according to my Telrad, so there was little doubt as to the correct star.

Actually there are also quite a number of useful functions and options within the NextStar hand controller including: Sidereal, Solar or Lunar rate; Anti-backlash, Filter Limits, Autoguide rate, Calibrate GoTo, Home Position, Light Control, Reset to Factory condition, Hibernate, Identify Nearby Objects, and a number of others. I did not take time to explore all of these options on this trip. A total of 15 go to lists/catalogs are also available including the IC, NGC, SAO, Caldwell and Messier catalogs

I found the unit to be friendly to travel with; I did use the original cartons for the scope optics and the Polar mount on this trip [a scope case would probably be a better choice]. Individual component weights are as follows (using a bathroom scale): Polar Mount, 12 lbs; Tripod, 16 pounds; Optical tube, 19 lbs and the Counter weights w/attaching bar, 24 lbs. Setup went quickly although I did not time it.

While at Indian Trail Springs I also had an opportunity to view the older G5 Mount with the same 9.25 scope and there is no doubt that Celestron has beefed up the tripod quite a bit for the newer CG5 Mount. While my original objective was for a visual scope I am confident that this mount and tripod would be a good imaging platform; the mount also has an Autoguider port for those whose interest is imaging.

(Continued on page 10)

CELESTRON'S 9.25" (Continued from page 9)

I used the instrument a total of around 12 hours over the three nights that we were at the Indian Trail Springs site. Power was provided by utility car starter battery packs using the included 12V connector. I think the batteries are around 18 amps each (meaning approximately 9 useable amps each). I did switch to the second unit, halfway through the second evening but the first still had life to it and when I left the second one still had a reasonable voltage level left. Celestron recommended, to me, power consumption availability of at least 1500 milliamps (which I assume is the maximum slew speed draw) and preferably 2000 milliamps.

Optics, well the last night I had the most exquisite view of Saturn that I have ever seen as well as, the previous evening, a beautiful image of NGC 253, the very large (almost 1/2 in length) Sculptor Galaxy, with many dust lanes resolved. I am happy.

Problems, if any: Several times, the motors started up and moved the scope on their own; aside from a minor annoyance a quick press of the undo and a new go to kept things squared away. Previous early evening startups always resulted in Vega as the first of the three alignment stars; until the last evening this was pretty much straight forward. The last evening I needed to catch some Herschel objects that were not going to be visible until about 3:30 AM. I therefore took an early nap and got up at 1:00 AM. When I started up the scope it went looking for Vega, as the first star of the initial three, in the wrong part of the sky; in fact it did this twice at that time; I just did an undo and let it choose another star which it went to, the second time and successfully completed the alignment, whereas the first time I simply turned the unit off; I did double check the time and location before that second search to make sure that no data had changed. Just before 3:30AM I turned off the scope and did another start up procedure; this time it found Vega with no problem; strange occurrence.

There is one feature that I did not like at all and that was the

short cord on the hand controller; it really keeps you close in. The finder at 6x30 is a bit wimpy for the size of the scope and I do wish it was the larger 9x50; but then I can appreciate that Celestron is trying to keep the cost affordable; never the less I wish they would raise the price fifty bucks or so and lengthen the hand controller cord and replace the 6x30 finder with a 9x50 (hint, hint, Celestron).

It was also a bit annoying not to have a "below horizon" message prior to slewing to a few selected objects that were but then good planning can avoid this problem.

It appeared to me that the NextStar memory would not retain any specific site information except the last one you entered the coordinates for; therefore you will probably need to know the coordinates of any intended travel site in advance; Celestron does include the coordinates for a number of cities, both US and International, in their manual and there are a number of websites with this information. I believe that Celestron actually also has an optional GPS setup for this scope but I had no reason to explore that option as I have a small hand held GPS unit already.

The balance weights were one short when I received the scope but Celestron did respond in a reasonable manner and sent me the missing weight (which had not arrived yet at the time of the field photo but has since); I am also satisfied with their Customer Service.

All in all I am very pleased with the optics, NextStar controller and the CG-5 mount. At \$ 1699 you get a lot of optical performance with good goto functions and reasonable component weights. My objectives were achieved for a travel scope. I would certainly repurchase this scope and mount again without any reservations.

I think this is a major sleeper and hope more folks learn about what a great value and performer this set up is.

Oh, and my Herschel List? Well I am down to 24 remaining objects.

YOUNG ROSE CITY ASTRONOMERS

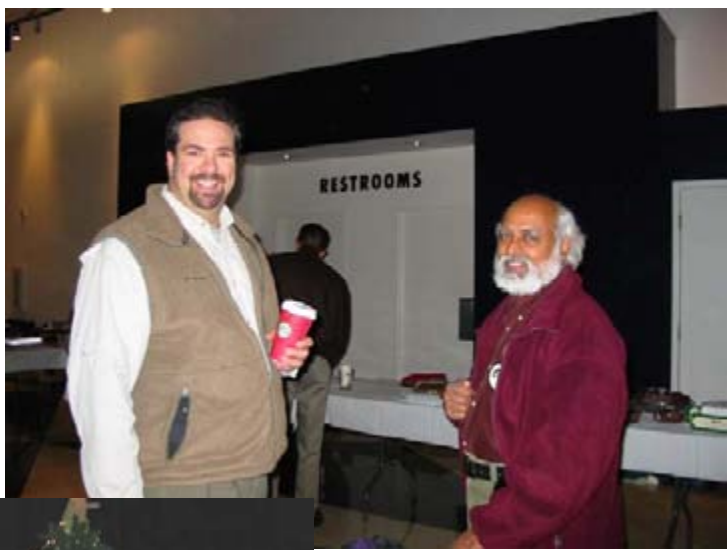
The November, 2003 JRCA meeting was the last kids meeting until June 2004! Not to worry, children ages 4 through 12 can attend special Junior Rose City Astronomer meetings during the months of June, July and August from 7:30 p.m. until 9:00 p.m. during the General RCA meeting. These special meetings 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



RCA Holiday Potluck 2003!

Photos by Jan Keiski



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

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January 2004

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

January 2004

- Jan 3 Sat. OMSI Mars Party OMSI Auditorium 8:00 PM
- Jan 5 Mon. RCA Board Meeting OMSI Classroom 1 7:00 PM
- Jan 6 Tues. Site Committee Harland Financial 7:30 PM
- Jan 19 Mon. **General Meeting** OMSI Auditorium 7:30 PM
- Jan 22 Thu. Astrophysics/Cosmology SIG Linus Pauling House 7:00 PM

February 2004

- Feb 2 Mon. RCA Board Meeting OMSI Classroom 1 7:00 PM
- Feb 16 Mon. **General Meeting** OMSI Auditorium 7:30 PM
- Feb 19 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-omsj.org>).

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

The

Rosette Gazette

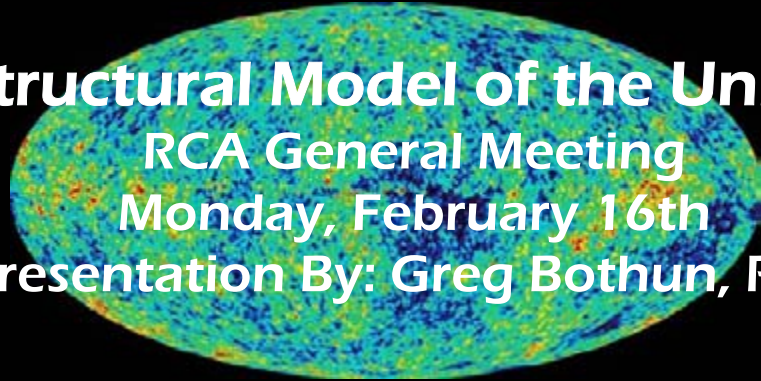
Volume 16, Issue 2

Newsletter of the Rose City Astronomers

February, 2004



A Structural Model of the Universe RCA General Meeting Monday, February 16th Presentation By: Greg Bothun, PhD.



In This Issue:

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- 11. '04 Observing Schedule
..... SIG's
- 11. Young RCA
..... YRCA Alum Presents
- 12. Calendar

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Hubble Deep Field above courtesy R. Williams (STScI), the Hubble Deep Field Team and NASA

Moon photos below courtesy David Haworth

For the first time in history, astronomers now have what can be called a Standard Model for Cosmology. In this model, the equation of state of the Universe has 3 parts: Part A is the contribution of normal matter, currently measured at 4.5% - Part B is the contribution of dark matter at 22.5% - the remaining and dominant contribution is from dark energy – a very poorly understood process.

The precision in this new model comes about entirely due to the tremendous success of the WMAP mission in measuring minute deviations in the microwave background radiation.

This talk will focus on the WMAP mission and the interpretation of the results, including a hitherto unmentioned consequence of these results, namely that at least 1/2 the stars in the Universe can no longer be in galaxies, but instead form an intergalactic population.

Dr. Gregory Bothun is a Professor of Physics at the University of Oregon. His Field of Specialization is Observational Astrophysics and he received his PhD. in Astronomy from the University of Washington.

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

CAMP HANCOCK MESSIER MARATHON WEEKEND

March 19th - March 21st, 2004

Registration Deadline March 15th - Unless we reach maximum capacity earlier

Camp Hancock is an OMSI sponsored field station for the promotion of science education. It is located about 150 miles from Portland and is 2 miles east of the John Day river in Eastern Oregon in the Clarno Fossil Beds. For maps, pictures, and more info go to web site <http://larrygodsey.home.att.net/hancock/>.

(Continued on Page 3)

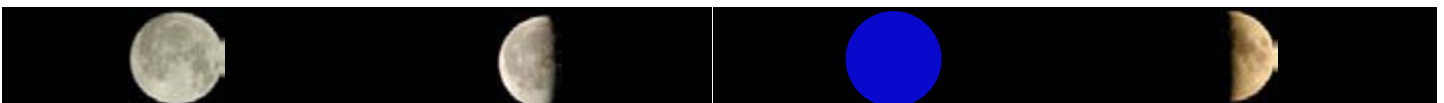
Deadline for submission of articles, ads, and photos for the Gazette is the 20th of each month.

Full Moon
February 6, 12:47 AM. PST

Last Quarter Moon
February 13, 5:40 AM. PST

New Moon
February 20, 1:18 AM PST

First Quarter Moon
February 27, 7:24 PM. PST



Club Officers			
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VP Community Affairs	Padraic Ansbro	(503) 349-3864	whiteowl@ansbro.com
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Camp Hancock Liaison	Glenn Graham	(503) 579-1141	the.grahams@verizon.net
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SIG Director	Matt Brewster	(503) 740-2329	M_brester@juno.com
Youth Programs Director	Jenny Forrester	(503) 504-8071	jenny@theforrest.org



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.



More local history.

Outside Oregon City, in the 1960s, Harold Haggart made an attempt to launch a commercial telescope operation. His 'Haggart-Aquila' telescope resembled a Maksutov, though the prescription was not published, in one

brochure, it is the 'new Aquila Maksutov Catadioptr', and in another the 'Aquila Maksutov'. It was six inches in aperture and advertisements appeared in amateur astronomy magazines of that era. Haggart was a skilled machinist & telescope maker; his large observatory instrument was said to be very fine quality. However, the Aquila suffered from a poor reputation, the corrector plate was uncoated and image quality off axis was quite poor. It was reported that the mechanical parts were inferior, the focuser & other parts looked roughly made and functioned problematically. However, this critique is second or third hand, from recent reports via email; because no one I know has even seen a Haggart Aquila. If there is one in the Portland area, it is well hidden, because inquiries have been fruitless. It is quite possible that this reputation is built on examples that were modified, or that quality varied over the years. Hopefully, an example of the Haggart Aquila will turn up locally so that it can be examined & recorded.

- Peter Abrahams

Camp Hancock Messier Marathon (Continued from page 1)

Camp Hancock is NOT a resort hotel, it is a rustic children's camp with 16 bunkhouses that sleep up to 14 people in an A-frame building. The bunkhouses are one room with bunks, mattresses, limited electricity and heaters on a 60 minute timer. You will be sharing the bunkhouse with others.

Lodging:

The bunkhouses are not reserved, except by prior arrangement for medical necessity. Bring your own warm sleeping bag (it will be cold at night) and whatever else you need. Please inform Larry Godsey at larrygodsey@att.net or 503-675-5217, as soon as possible if you have special diet needs or have medical issues. One of the cabins will be set aside as a "ladies only" bunkhouse and one as a "men only" bunkhouse. The remaining bunkhouses are first-come and you will be sharing with others.

There is a Ladies bathroom is at the east end of the Dining Hall. The Men's bathroom is near the office. They both have hot water and showers, but bring you own towels and shampoo. There is also men's and ladies' pit toilets near the viewing areas.

There is a limited area for RVs and Trailers. We've been usually able to provide limited electricity to most of the RVs and trailers, but bring your own power cord, and be prepared to be self sufficient in case there is not enough power available.

There is a tent camping area, but only two wooden platforms available. There is NO tent camping south of the Water Tower, that area is Park Service land and not part of Camp Hancock.

Meals:

Camp Hancock offers breakfast, sack lunch, and dinner for our event (no breakfast or lunch on Friday and no dinner on Sunday.) The meals are served family style and everyone is expected to help with setting up, clearing the tables and doing dishes. Breakfast is served at 9am Saturday and Sunday, with fixings put out for making a sack lunch at 10am. Dinner will be at 6pm on both Friday and Saturday. There is a Coffee Pot and Hot Water during the night, but bring your own midnight snacks.

There are NO soda or snack machines in the camp and meals are NOT available out of hours. If you bring any snacks they must be kept in critter-proof containers.

Please inform Larry Godsey at larrygodsey@att.net or 503-675-5217, as soon as possible if you have special diet needs or have medical issues.

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 or parking on the surrounding park service land

The Staff housing area is off limits to guests

Costs:

Meals must be paid for in advance with your registration and can NOT be purchased on-site.

Breakfast is \$3.75 per person per day (Saturday & Sunday)

Lunch is \$3.50 per person per day (Saturday & Sunday)

Dinner is \$4.75 per person per day (Friday & Saturday).

RVs, Trailers and Tents are \$8 per night per unit, not per person.

Bunks in the A-frame bunkhouses are \$14 per person per night.

(Continued on page 7)



**2004 Information Fair!
Photos by Jan Keiski**



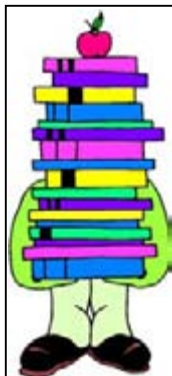
FOUR BRIGHT PLANETS AND THE MOON! OMSI TO HOST SKY WATCH PARTY

Four of the brightest planets of the solar system will join Earth's moon in the sky in late February, and the Oregon Museum of Science and Industry is inviting sky gazers to watch them at an evening event. Venus, Mars, Saturn, Jupiter and the Moon will gather in the evening sky on Saturday February 28, and OMSI, the Rose City Astronomers (RCA) and Vancouver Side-walk Astronomers are hosting a Star Party that evening, weather permitting. The free event starts at 7:00 p.m. at OMSI's east parking area, located 1945 SE Water Ave.

RCA and VSA members will make their telescopes available to anyone who attends, and OMSI Murdock Planetarium Manager Jim Todd will present informal talks on the occurrence. From beginners to experts of all ages, visitors will have the opportunity to view the stars and other objects through a variety of telescopes. In addition, the museum will provide a large-screen, live image of planets by connecting a projector to a telescope.

In addition to seeing the planets and moon, the Orion Nebula, the Beehive star cluster and other celestial bodies will be visible. For possible weather cancellation, call (503) 797-4610 on February 28 after 3:00 PM to get the latest information. The 2004 OMSI Star Party schedule can be found on the OMSI website at www.oms.edu <<http://www.oms.edu>> under the links for the Planetarium.

Jim Todd



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-oms.org/library.htm>

Awards

Tom Nathe
All 110 Messier objects
#2117

John Siple
Messier Binocular
#575

Stephanie Cox
Messier Binocular
#578

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

Imaging the Sky with Digital, Web & Video Cameras Conference

Saturday June 26, 2004

Mt. Hood Community College Planetarium Sky Theater
Gresham, Oregon

Digital, web, and video cameras are being used to image the Moon, Sun and planets. This conference covers using these cameras, how to mount them to the telescope and image processing techniques. State of the art technologies and techniques used by amateur astronomers here in the northwest will be presented. This conference is designed for everyone astronomically inclined, including those who have no prior astronomy imaging experience.

The conference presentations include Electronic Imaging Basics by Mel Bartels, Image Processing by Richard Berry, Web

Cameras by David Haworth, Digital Cameras by Richard Berry, Video Cameras by Craig Zerbe and first quarter Moon imaging demonstrations (weather permitting). Conference attendees will receive a conference CD-ROM with presentations, imaging information and related software.

Register early because seating is limited. Registration is \$30.00 by May 31, 2004 and in June it is \$40.00. Schedule is subject to change. For more information and registration, visit <http://www.its-ccd.org/>.

Sponsored by Mt. Hood Community College Science Club and Planetarium Sky Theater, 26000 SE Stark Street, Gresham, Oregon 97030



BOARD MEETING MINUTES

JANUARY 12, 2004
OMSI Classroom 1
Ken Cone

Present:

Peter Abrahams, Matt Brewster, Jeff Henning, Ken Cone, Carol Huston, Doug Huston, Jan Keiski, Bob McGown, Dareth Murray, Ginny Pitts, Deborah Smith-Hirshmann, Larry Deal

Treasurer – Ginny: \$12,761 in our accounts. Ginny will work with Judy Dethloff (Dethloff & Associates CPA) to advise the treasurer on the club books. The purpose is to get the books into an auditable position.

Programming – Matt:

Matt working on getting new speakers for the year. January RCA meeting will be the information fair. Tables will be: cosmology, site committee, programs, membership, subscriptions, telescope making, imaging, telescope library, sales, OSP. Greg Bothen is booked as a speaker for February.

Membership – Doug: 350 member families. Meeting attendance 170-200 people average last few months.

New Members – Carol: New member orientation meeting will be in February. New meeting will be about two hours, time and location to be announced.

Star Parties – Scott & Matt V:

Matt recommends two proposals to take to Kah Nee Ta, one with attrition clause, one without. Club responsible for min number rooms, est 70 people with \$76 per room.. 90% of 70 no attrition. Cancellation 72hrs. (we might want to take some of the detail out for now)...

...Carol and Matt to discuss contract details. Peter, Matt, Carol will finalize contract details, board in agreement to let them negotiate with Kah Nee Ta. Need to find someone to run / organize the star party at Kah Nee Ta. Matt Vartanian was not at meeting.

Community Affairs – Padraic: nominal

Sales – Sameer: nominal

Dark Sky Association – Bob:

Bob will bring some International Dark Sky Association approved fixtures to the DSA table at the February meeting.

Cosmology Bob :meeting will change, new date will be announced at cosmology table at February meeting.

AL – Dale: nominal

SIGs – Matt B: nominal

Magazines – Larry G: - 9 magazine subscriptions for December, \$285.65.

Editor – Larry D: Working on idea of division of labor for putting out the newsletter. For example: processing incoming copy might be one task, with layout the other task. If any club member is interested in helping with the newsletter, please contact Larry Deal or Peter Abrahams.

Library – Jan: Received a generous donation of \$100 for the library. Jim Reilly produced a DVD of the Mars Spirit landing from NASA channel. The DVD will be added to the library.

YRCA – Jenny: nominal

Webmaster – Dareth: nominal

OMSI – Peter: nominal

Telescope Library – Jeff: nominal

Copying – Deborah: Deborah is updating the officers list, and new member packets for upcoming Meetings.

Phone line: - Dareth Murray will run the phone line for Jan. 12 to Feb. 2. Bob McGown will take the month of February.

Ken will get in touch with Ron Forrester to get back secretary minutes.

December Board Meeting Minutes, Clarification.

The minutes for the December board meeting, as printed in the January Gazette, included some phrases that could be misleading. These references included a note about an audit of the RCA financial records, and implied an accounting review. These terms are meaningful to an accountant, but were used in an informal sense in the minutes.

There is no reason to think an audit or a review is pending or necessary. We are enhancing the organization and documentation of our financial records with the advice of a professional accountant, whose services are gratefully acknowledged.

- Peter Abrahams, RCA President 2004

Camp Hancock Messier Marathon (Continued from page 3)

Registration:

Registration and payment deadline is March 15th and there will be NO REFUNDS AFTER that date. We will cut off registration when we reach capacity of 100 people.

Please inform Larry, as soon as possible if you have special needs or medical issues. If you have any further questions you can email Larry at "larrygodsey@att.net" or 503-675-5217.

There is far more information on the web, including an order form you can fill out on-screen. The information, including pictures, downloadable Camp Hancock information, Clarno Fossil bed information, Driving maps and instructions, etc. will be found at "http://larrygodsey.home.att.net/hancock/"

Activity	Friday	Saturday	Sunday	Total
Breakfast \$3.75	NA			\$
Lunch \$3.50	NA			\$
Dinner \$4.75			NA	\$
Bunkhouse Lodging \$14.00			NA	\$
Tent \$8.00			NA	\$
RV or Trailer \$8.00			NA	\$
Total \$				

Please make checks payable to "Rose City Astronomers"

Name:	Send This Form and your Check to: Larry Godsey 2846 Carriage Way West Linn, OR 97068-2215 Payment must be received by the registration deadline of March 15 th . Registration will be closed if we reach capacity earlier.
Address:	
City, State, Zip:	
Telephone:	
Email:	
Number Attending:	

Observing Site Committee

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.

Next Meeting: Tuesday, February 10 2004, 7:30 PM - 9:00 PM

Harland Financial Solutions
400 SW 6th Avenue, Portland
Conference room on entry level. Sign-in at Guard Station

For More Information Contact: [David Nemo](mailto:david6366@msn.com) <david6366@msn.com>

New Member Orientation Meeting

Now that you've joined this club, you might be overwhelmed with the number of people, questions about equipment, and general confusion about how to get started in your hobby. ***Have we got the answer for you!*** A new member orientation will be held on Wednesday, February 18, at 6:00 PM at the home of Doug and Carol Huston. Do you have to be a "new member" to participate. No! If you have questions and want some assistance getting going, this is the meeting for you.

Topics to be covered are:

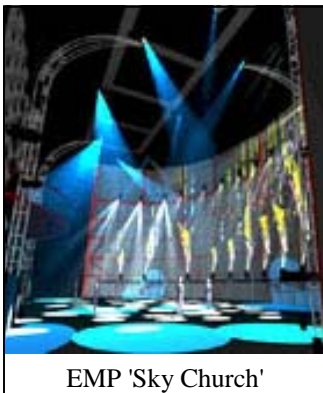
- Club resources and how to access them.
- How to prepare for and participate in star parties.
- Helpful tips on how to get started with your astronomy program.
- Introduction to observing programs.
- Generic review of equipment.
- Volunteer opportunities with RCA.
- Your particular issues.
- Question and Answer.

Bring your new member packet for reference. Please RSVP your attendance by calling Carol Huston at (503) 629-8809 or contacting via email at StarsCarol@aol.com. (Please mention the number of attendees.)

This informal information session will be geared to helping you make the most out of your participation in RCA, so any advance questions and topics you want considered can also be noted at the time of your RSVP.

We hope to see you there!

Sky Church by Bob McGown

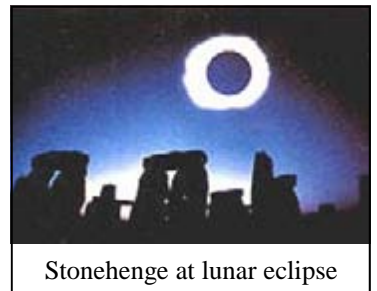


EMP 'Sky Church'

In Seattle's Experience Music Project (EMP), near the entry, a colossal cathedral theater with a superb interactive music and light show is called the 'Sky Church'. This part of the huge facility that is the EMP is an architectural wonder that captivates anyone who comes inside.

However to me a sky church is not a building but the observing experience we get on a clear night, finding stars, galaxies and other deep sky objects through a telescope. Standing beneath the Milky Way always gives me a feeling of awe. I contemplate the universe and wonder what is the meaning of existence. As the curtain of night falls, I stand in the twilight and view the magical night sky.

The colors of the stars come out against the night and become a light show themselves. A deep upwelling of emotion fills me as I think of the night sky as a cosmic library of undiscovered knowledge. Each star and nebula is like a marvelous book yet to be read.



Stonehenge at lunar eclipse

It is no wonder that the druids of Salisbury Plain, England used ancient Stonehenge to track the sidereal clock of the seasons and study moon cycles. Throughout the last few thousand years many religions have incorporated the motions of the planets and stars into their specific theology to explain the passages of time and why the objects in the night sky look and move the way they do.

(Continued on page 9)

Sky Church (Continued from page 8)

Amateur astronomers have always been captivated by the splendor and seemingly infinite panorama of the night sky. As veteran amateur astronomer, I wonder about distant worlds and whether there is life on planets around other suns like ours. I am not the only one. This is a subject of intense study in mainstream professional astronomy and extra-solar planet discoveries are reported in the popular media constantly. Yet people have not always been able to express their opinions so openly. The belief that other worlds with intelligent beings might exist was a very dangerous idea in the 16th century. Giovanni Bruno was burned at the stake for his radical belief that there must be many other worlds like ours. It was visionary thinkers like Bruno who paved the way for the rebirth of cosmology.

The seemingly radical views of Galileo brought the scholars of the day out to debate the worldviews and question traditional ideas. Now the Catholic Church (who burned Bruno) has adopted the philosophical thinking behind the science of the 'big bang' into their official doctrine and teachings. Since 1993 the Vatican Advanced Observatory Group (VATT) has been headquartered at Mt. Graham International Observatory in Arizona. The Observatory can be traced to the constitution by Pope Gregory XIII of a committee to study the scientific data and implications involved in the reform of the calendar which occurred in 1582. There are many classic books written, like the "Tao of Physics" by Fritjof Capra, which incorporate profound philosophical and theological thinking into the framework of mainstream physics. Even books like "God and the New Physics" by Paul Davies give us a feeling of the infinite complexity of the universe and the ability of 'nature' to self organize. In conversations I had with Paul Davies in the 1980's, Paul mentioned that he thought that the clergy (of many denominations) was going to accept quantum physics in the next ten years and incorporate it into their theology. That seems to be the trend.

Some skeptics would rather incorporate ethics into science than science into religion. The blending of theological philosophy and scientific reasoning is not a new concept. Gaining a deeper understanding of science & the physics and mathematics of how things work gives me a profound spiritual connection with the universe as a whole. I see the fractal geometrical elegance in nature in all scales and dimensions. Observing nature, I see a rotating fractal gyre in my tea cup, a spinning eddy whirlpool in a stream and see that same pattern repeat in the clouds above and then in the large-scale structure of a complex spiral galaxy in the eyepiece of my telescope. Probably in the near future Zen monks and spiritual meditators will incorporate observing under the night sky as a regular routine.



To understand the expanding universe, I try to fathom time and the symmetry of the tangled hierarchy. It is not difficult for me to imagine glaciers in geological or cosmological time carving a mountain cirque or the birth, life and death of a star. Sometimes the universe provides an analogy to our human birth and death cycle when a supernova, the death of a great star, creates the cradle for a stellar nursery where new stars are 'born'. From our vantage point, orbiting this third generation star that we call the Sun, we can look out across the plane of the galaxy and begin to know where and how far we have come. Humankind from the beginning has pondered these deep questions: Are we alone in the Universe? Is there intelligent life like us out there?

It would be comforting to know that we share a kinship with other civilized beings living out in the stars. It is somewhat arrogant for humans to think that in all the billions of stars in the Milky Way alone that not one civilization of sentient beings has not witnessed the church of the night sky and asked the same questions that we do. We seek the meaning of space, time and our own existence and want a connection to ultimate truths. As I gaze out from my vantage point on this planet into the night 'sky church', I feel that I am reaching out and getting closer to the answers.

Rose City Astronomers 'Downtowner's' Lunch

Next Lunch is February 6th from Noon to 1pm

Join us on the first Friday of each month for lunch at the Great China Seafood restaurant (Holidays and such may push us to the second Friday of some months, check the calendar at <http://www.rca-oms.org>).

Cost is \$6.50 for all-you-can-eat Chinese Buffet Lunch.

Great China Seafood restaurant

334 N.W. Davis, Upstairs on the 2nd floor

Great conversation and buffet lunch.

For more information contact:

Margaret McCrea at mmcrea@nmlink.com

2004 RCA Observing Schedule

Event	Location	Dates	Day of Week
Planet Parade.....	OMSI East Parking Lot	February 28.....	Sat
Messier Marathon	Camp Hancock	March 19-20	Fri-Sat
Vernal Equinox Celebration	OMSI East Parking Lot	March 27.....	Sat
RCA Dark Sky Star Party	Kah Nee Ta.....	April 16,17.....	Fri-Sat
Astronomy Day	Rooster Rock State Park.....	April 24.....	Sat
RCA Dark Sky Star Party	Camp Hancock	May 21-22	Fri-Sat
Comet Watch	Rooster Rock State Park.....	May 22.....	Sat
Summer Solstice	OMSI East Parking Lot	June 12.....	Sat
RCA Star Party	Larch Mountain*	June 19.....	Sat
Mount Bachelor Star Party.....	Mount Bachelor	July 14-17	Wed-Sat
Table Mountain Star Party	Table Mountain, Ellensburg, WA	July 15-17	Thu-Sat
RCA Star Party	White River Canyon	July 17	Sat
Lunar Viewing	OMSI East Parking Lot	July 24	Sat
Oregon Star Party.....	Indian Trail Spring	August 12-14	Thu-Sat
Perseid Meteor Shower.....	Rooster Rock State Park.....	August 12	Thu
RCA Star Party	Larch Mountain	August 14	Sat
RCA Dark Sky Star Party	Indian Trail Spring	September 10-11.....	Fri-Sat
Autumnal Equinox	OMSI East Parking Lot	September 25	Sat
RCA Star Party	Chuck & Judy Dethloff's Property	October 9	Sat

*Larch Mountain, June 26 & 27, ARRL Ham Radio Field Day. Generators and floodlights, no observing.

SPECIAL INTEREST GROUPS

ASTROPHYSICS / COSMOLOGY

Date/Time: Thursday, February 19, 7 PM.
 Speaker/Topic: Jef Bryant 'The Big Bang and Inflation'
 Place: Linus Pauling Complex, 3945 S.E. Hawthorne St., Portland.
 Contact: [Bob McGowan](mailto:BobMcGowan@earthlink.net) (503-244-0078) or [Doug Huston](mailto:DougHuston@earthlink.net) (503-629-8809) for more information.

ASTROMETRY, PHOTOMETRY, & SPECTROSCOPY SIG

For those interested in the use of CCD's as applied to some of the scientific aspects of astronomy, particularly astrometry, photometry, and spectroscopy.
 Contact: Jim Girard argojg@comcast.net for more information.

ASTRO IMAGING SIG

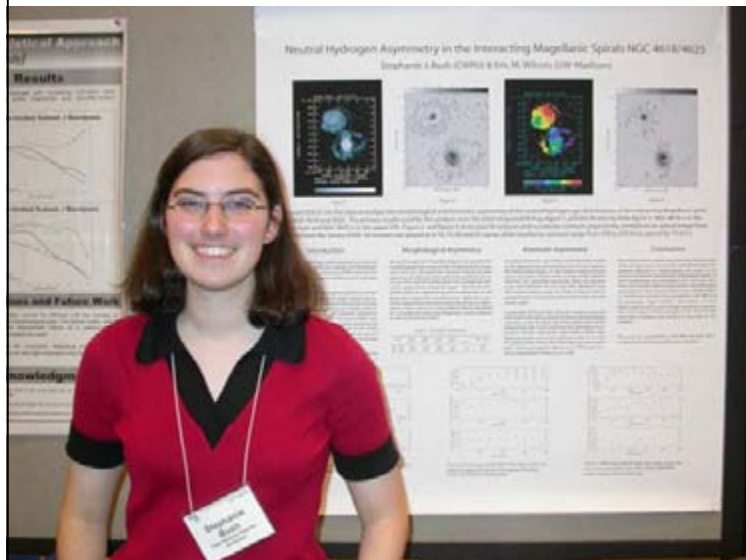
Date/Time: Thursday, February 19, 7:30 PM.
 Place: Seans Astronomy, 24209 NE 92nd Ave. Battle Ground, WA.
 This special interest group is intended for anyone interested in learning or sharing information and ideas about FILM and DIGITAL photography as it applies to aesthetic astronomy picture taking.
 For information please contact:
 Mike Cole @ 360-604-7865 mrcole@earthlink.net

TELESCOPE MAKING WORKSHOP

Date/Time: Saturday, February 21, 10 AM - 3 PM.
 Place: Technical Marine Service, Inc. 6040 N. Cutter Circle on 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.

Young Rose City Astronomers Co-Founder Presents at American Astronomical Society Meeting!



Stephanie Bush (left) joined RCA about a decade ago, and was one of the founders of the YRCA. She is now a senior at Case Western Reserve U. in Ohio, majoring in astrophysics. Stephanie presented a poster paper to the American Astronomical Society's meeting in Atlanta. The abstract of the paper follows.
Peter Abrahams

AAS 203rd Meeting, January 2004

*Session 115 Dwarf, Irregular and Starburst Galaxies
Poster, Thursday, January 8, 2004, 9:20am-4:00pm,
Grand Hall*

Neutral Hydrogen in the Interacting Magellanic Spirals NGC 4618/4625

S. Bush (Case Western Reserve University), E. Wilcots (University of Wisconsin-Madison)

Asymmetry is a common trait in spiral galaxies. However, it is particularly frequent among Magellanic spirals. To explore how morphological and kinematic asymmetry are affected by companion galaxies, we analyze neutral hydrogen observations of the interacting Magellanic spirals NGC 4618 and 4625. Through calculations based on derived H-I profiles, we show that NGC 4618 and 4625 are no more asymmetric than non-interacting Magellanic spirals analyzed by Wilcots & Prescott (2003). We also derive rotation curves for the approaching and receding sides of each galaxy. By fitting the mean curves with an isothermal halo model, we calculate dynamical masses of $4.7 \times 10^9 M_{\odot}$ and $9.8 \times 10^9 M_{\odot}$ out to 230 arcseconds for NGC 4618 and 4625, respectively. While the rotation curves have systematically higher velocities on the receding side of each galaxy, the effect is no more pronounced than in studies of non-interacting spirals (Swaters et. al. 1999). Therefore, we find no compelling evidence that interactions have caused the asymmetry in NGC 4618/4625. This work was supported by a NSF-REU site grant (AST-0139563) to the University of Wisconsin-Madison.

Bulletin of the American Astronomical Society, 35#5 © 2003. The American Astronomical Society.

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



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

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February 2004

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						

February 2004

Feb 2	Mon.	RCA Board Meeting	OMSI Classroom 1	7:00 PM
Feb 6	Fri.	Downtownner's Lunch	G. China Seafood	12:00 PM
Feb 10	Tues.	Site Committee	Harland Financial	7:30 PM
Feb 16	Mon.	General Meeting	OMSI Auditorium	7:30 PM
Feb 19	Thu.	Astrophysics/Cosmology SIG	Linus Pauling House	7:00 PM
Feb 19	Thu.	Astro Imaging SIG	Seans Astronomy	7:30 PM
Feb 21	Sat.	Telescope Making Workshop	Swan Island	10 AM—3PM
Feb 28	Sat	OMSI Star Party	OMSI	7:00 PM

March 2004

Mar 1	Mon.	RCA Board Meeting	OMSI Classroom 1	7:00 PM
Mar 5	Fri	Downtownner's Lunch	G. China Seafood	12:00 PM
Mar 13	Sat.	Telescope Making Workshop	Swan Island	10 AM—3PM
Mar 15	Mon.	General Meeting	OMSI Auditorium	7:30 PM
Mar 18	Thu.	Astrophysics/Cosmology SIG	Linus Pauling House	7:00 PM
Mar 18	Thu	Astro Imaging SIG	Seans Astronomy	7:30 PM
Mar 27	Sat	OMSI Star Party	OMSI	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-omsj.org>).

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

The

Rosette Gazette

Volume 16, Issue 3

Newsletter of the Rose City Astronomers

March, 2004



RCA General Meeting March 15, 2004 THE MARS UNDERGROUND Presented by Gus Frederick

In This Issue:

- 1... General Meeting
- 2... Board Directory
 - President's Message
 - Magazines
- 3... Obs. Site Committee
 - RCA Library
 - Classifieds
 - Young RCA
- 4... A Winter Journey
- 6... Board Minutes
 - Desert Sunset SP
- 7... RCA Downtowners
 - OMSI Star Party
 - SIG's
- 8... Star Party Review
 - Sky Church
- 9... Be Prepared
- 10. Calendar

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Hubble Deep Field above courtesy R. Williams (STScI), the Hubble Deep Field Team and NASA

Moon photos below courtesy David Haworth

What do, duckweed, mice, Mother Goose and desert varnish have to do with Mars? Join us as we take you on a Cyber-Journey from beneath the lava flows of Oregon to toxic caves in Arizona, with many exotic side trips along the way, leading eventually to the Red Planet itself!

Oregon native R.D. "Gus" Frederick works as an Instructional Technologist, creating multi-media resources for Oregon's public school educators. In his spare time, he moonlights as a Martian, providing scientific illustrations, working as a researcher on several projects involving Martian lava tube caves and heading up the Oregon Chapter of the Mars Society as its president. His presentation explores the idea of Martian lava tube caves as habitats, resources, and biomes.



Mars Pathfinder image, Courtesy NASA

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

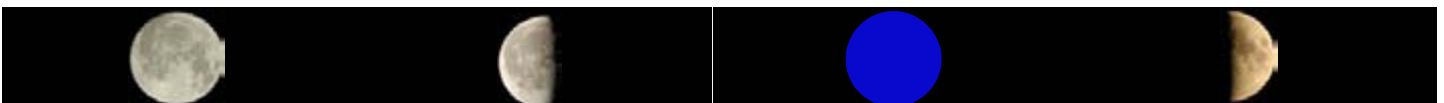
Deadline for submission of articles, ads, and photos for the Gazette is the 20th of each month.

Full Moon
March 6, 3:14 PM. PST

Last Quarter Moon
March 13, 1:01 PM. PST

New Moon
March 20, 2:41 PM. PST

First Quarter Moon
March 28, 3:48 PM. PST



Club Officers			
President	Peter Abrahams	(503) 699-1056	telscope@europa.com
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VP Observing	Matt Vartanian	(503) 244-5023	matt@vartanian.net
VP Community Affairs	Padraic Ansbro	(503) 349-3864	whiteowl@ansbro.com
VP, Communications	Matt Brewster	(503) 740-2329	m_brewster@juno.com
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Telescope Director	Jeff Henning	503-656-3041	j42h@aol.com
Media Director	Padraic Ansbro	503-349-3864	whiteowl@ansbro.com
IDA Liaison	Bob McGown	(503) 244-0078	bobmcgown@comcast.net
OSP Liaison	Dareth Murray	(503) 957-4499	darethlee@comcast.net
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	M_brester@juno.com
Youth Programs Director	Jenny Forrester	(503) 504-8070	jenny@theforrest.org



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-oms.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.



Portland in 1931.

"Telescopes Made in Out-of-the-Way Places" was the title of Scientific American's ATM column for September, 1931, wherein A.V. Goddard, 282 NE 49th St., Portland, described his setting circles for telescopes. The January 1931 column was about the 16 inch Newtonian built by God-

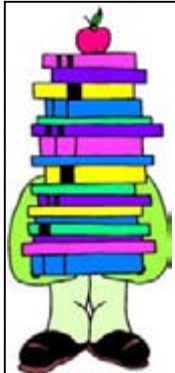
dard, with a mirror made by John Mellish, a very fine optician who was based in Cottage Grove, Oregon, for a time. Goddard had begun 2 decades before this, 'experimenting on mirrors, & liquid objectives-that is, filling the space between two ground surfaces with silicate of soda'. He describes his new telescope: 'The tube and mounting of the 16-inch weigh about 750 pounds....the concrete base is 20 feet in diameter and two feet thick', and he notes that he hauled the concrete using a wheelbarrow. 'The tube is heavy-gage galvanized iron and is 17 inches in diameter and 128 inches long'; and the circles are cast brass disks ten inches in diameter, with the hours and degrees ruled on the perimeters. The divisions are down, respectively, to four minutes and three degrees, which are in turn divided on the verniers'.

Not surprisingly, Goddard had problems with thermal equilibrium of all this mass. W.H. Pickering at Harvard had written about using a fan to reduce thermal seeing effects, and Goddard bought a 6 inch electric fan, mounting it on the tube so it sent air in through a door in the tube, over the mirror. The vibration of the fan forced him to mount it on a separate stand, and the effect was dramatic: 'Only about three of Jupiter's belts were visible-until I turned on the fan....The effect was like blowing away a fog, and the detail, even with 600 diameters, was very clear. Since then I have found the fan so far ahead of any other method that I always use it.'

Goddard also owned a four-inch John Byrne objective in a Gall and Lembke mount.

The succeeding years of Goddard's observatory, and the disposition of his instruments, are not known.

Peter Abrahams



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-oms.org/library.htm>



CLASSIFIED ADS

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

FOR SALE: 10" Meade LX200 f/10 telescope in excellent condition. Original owner, purchased from OPT in 10/98, used sparingly (purchased an Obsession in 2000). Includes GoTo, tripod, AC power supply, 2" diagonal, dew remover, flexible dew shield, reducer/corrector, battery adapter, and solar filter. \$3,600 invested, asking \$2,250. Call Brian at (503) 554-9065.

Observing Site Committee

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.

Next Meeting: Tuesday, March 9 2004, 7:30 PM - 9:00 PM

This Date Is Tentative Please Check <http://nemoworld.com/RCA/sitehome.htm> To Confirm
or Contact: [David Nemo](mailto:david6366@msn.com) <david6366@msn.com>

Harland Financial Solutions
400 SW 6th Avenue, Portland
Conference room on entry level. Sign-in at Guard Station

For More Information Contact: [David Nemo](mailto:david6366@msn.com) <david6366@msn.com>

YOUNG ROSE CITY ASTRONOMERS

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Concerns or questions? Please contact Jenny, the JRCA Program Director at Jenny@theforrest.org



A Winter Astronomical Journey

By Bob McGown

On the first day of January 2004, I had the good fortune to connect with the amateur astronomers of the Battle Point Astronomical Association (BPAA). Consequently, I found myself Friday evening, January 2nd, on Amtrak, speeding up to Seattle for a winter weekend adventure. Dareth Murray, Matt Brewster and Margaret McCrea from the Rose City Astronomers joined me for this spur-of-the-moment trip. The pieces of the adventure came together as I was able to organize a visit to the Edwin E. Richie Observatory on Bainbridge Island, Washington for Saturday the 3rd. Meanwhile Margaret had told us of the special Blues Exhibit at the Experience Music Project (EMP) and Matt had found out about a unique exhibit of James Turell's light experience at the University of Washington. The exhibit is centered on light and human perception using the Roden Crater in Arizona as the focal point. We decided to put all these pieces together and make a weekend of it. Because of the snow and icy conditions, we figured Amtrak was the way to go. After a ride through a curtain of night we arrived in Seattle and bused to Hostel International on Union Street. This lively hostel is a wonderful alternative to paying the high prices charged in Seattle for downtown hotels.

Arising early, we feasted on the free breakfast offered by the Hostel and then hiked up the streets to the Monorail for our first destination, the EMP. This colorful, unique building rises like a phoenix amongst the drab, gray concrete structures around it. We experienced a profound musical tour with personal interactive recording studios, the 'guitar' room and the traveling exhibit sponsored by PBS about the Birth of the Blues. We spent 5 enthralling hours there and then met Matt's friend Jill Irwin who had graciously offered to drive us to Bainbridge Island to help us meet the 6 p.m. rendezvous with our astronomical colleagues. The ferry crossing was choppy with icy decks but a great view of the Olympics and the alpine glow sunset, which made the 35-minute trip across the sound very enjoyable. We couldn't resist a charming bookstore on the island. After a gourmet dinner, we drove by moonlight up to the northwest corner of the island where the BPAA has the Edwin E. Richie Observatory tucked away on Battle Point Park.



Model of Edwin E. Richie Observatory

We were greeted at the doors of the observatory by Paul Below, President of the BPAA, his wife Cathy and member Malcolm Saunders, one of the 'techies' in the club. The observatory is built from a concrete WWII radio tower facility, which was used for sending radio signals out into the Pacific Ocean. On the site is a footing for the 800' WWII Navy antenna that was the first to send long wave radio waves to submarines underwater.

Paul told us that an old time WWII radio engineer came by and described the giant Helix coil in the concrete building which when operating would cast ball lightning, St. Elmo's fire and cause all the nails in the facility to glow red hot! The engineers who worked in the facility during WWII were the first to break the Japanese code.

The 200 member BPAA uses the facility for their meetings and to house the 27 1/2" Richie telescope in the dome on the roof of the building. The BPAA were fortunate to receive a donation from Boeing of a 40" and a 27 1/2" Zerodur glass mirror originally intended for a high-tech military space facility. The club traded the 40" to the University of Arizona for a milling machine and a 28" finished mirror, which became valuable assets to the club.



BPAA mirror grinding machine

The mirror grinding room is located inside the observatory facility. In the clubroom is a 16" string telescope that the club built last year. The club also has two smaller Dobsonian scopes that they lend out to members.

A spiral staircase leads up from the main clubroom to the rooftop where the dome is located. Being near one foot thick, the concrete structure of the building can handle the weight of the telescope and dome with no problem. Windy and cold, we went quickly from the door to the open dome where the fork mount equatorial Newtonian 27 1/2" inch telescope is resting on a 4' square isolation pier rising to the roof. BPAA members favor observing to the western northerly skies because of the 20 degree light bubble emanating from Seattle. Here, Seattle is known to be the poster child of bad lighting! The

island blocks out the Seattle skyline but sections of the Milky Way are visible. Presently Malcolm is repairing the right ascension stepper motor worm gear. The 27 1/2" telescope is a truss tube Newtonian with a rotating ring secondary cage. It has a 5" secondary with a 3.8 focal length set up for both visual and CCD observing.



Photo of 27 1/2" observatory scope

(Continued on page 5)

A Winter Astronomical Journey (Continued from page 4)

One of the three founders of the BPAA, Mac Gardiner, along with Richard Berry had the original idea for the International Space Station Amateur Telescope project. As Richard commented in his [Sky & Telescope](#) article "A Public Star Party from Earth Orbit" from October 2003: "The whole thing began as one of Mac Gardiner's nutty ideas". Richard, NASA Coordinator for the ISSAT, has gone on to become one of the key figures in the project which is located at the Arizona Sky Village.

The Astronomical League, one of the sponsors of the ISSAT, presented the BPAA with a plaque honoring them for their contribution to the project. Mac continues to stay in touch with the ISSAT folks and recently communicated with Terry Mann, ISSAT Project Manager and Operations Chair. In addition to RCA member Richard Berry's deep involvement with the project, other members of RCA have published articles about the ISSAT such as the one I published on "Satellite imaging of repair missions with the ISSAT".



Photo of the ISSAT Alpha telescope

The friendly folks from BPAA gave us a complete tour of the facility with hot tea too!

John Rudolph, co-founder of the BPAA and the architect who designed the remodel of the building, was responsible for the studies in archeo-astronomy on the island. On the office wall we noticed a striking photo of a large stone covered with petroglyphs. Paul informed us that it was locally known as the 'Haleets' stone or the Agate Point Petroglyph, which may be more than 5,000 years old. It has been observed that from this stone, at the equinox, the sun rises through a deep gorge in the Northern Cascades, directly over the stone. However, it is slowly being covered up by the ocean, with barnacles now covering some of the petroglyphs.

The Moon followed us back to Seattle on the ferry where we arrived in time to take in some local nightclubs and live music. Before we went out for the music, Dareth accessed the Internet from the Hostel to find out that minutes earlier, the Spirit Rover had landed successfully on the surface of Mars. She let out a shout and we notified everyone there that this was an important moment in human history!

Sunday morning saw us heading toward the Henry Art Gallery at University of Washington (thanks again to Jill's gracious chauffeuring) for the Turrell 'Knowing Light' exhibit. This is a fantastic exhibit, which gave us all a yearning to go to the source of Turrell's inspiration - the Roden Crater near Flagstaff, Arizona.



Image courtesy: <http://www.sculpture.org/documents/scmag02/nov02/turrell/Tur-6.jpg>

The unique experience of the eclipse room as well as viewing models of the tunnels and rooms Turrell has built under the Roden Crater gave us some insight into Turrell's unique perspective of light and human perception. The crater is modified with tunnels and chambers that direct the light of the southern-most Moonrise. Turrell has focused his work to bring about an experience with light to elucidate this creation of nature. We were intrigued with the wonder of Turrell's life work, capturing the celestial display of light and music of the spheres at the Henry Art Museum.

The train ride home was a snowy trip with Mt. Rainier on our flank. We shared views of the spectacular Tacoma and Narrows bridges as we passed by them on our journey home. We will be back to Bainbridge Island in the summer to see the observatory and our new friends from the BPAA. The Battle Point Astronomical Association website has lots of interesting information and a great online newsletter:

<http://bicomnet.com/ritchieobs/>



BOARD MEETING MINUTES

FEBRUARY 2, 2004
OMSI Classroom 1
Ken Cone

Present: Peter Abrahams, Padraic Ansbro, Ken Cone, Dale Fenske, Carol Huston, Doug Huston, Jan Keiski, Bob McGown, Dareth Murray, Ginny Pitts, Sameer Ruiwale, Deborah Smith-Hirshmann, Matt Vartanian

Treasurer – Ginny: \$14,173.84 in our accounts. Ginny met with Judy Dethloff, recommended we go to Quickbooks, Board approved for Ginny to purchase the software and Quickbooks class.

Judy also recommend changes to a couple of other departments, Ginny is working the details. A paper trail for receipts and deposit transactions is important. Target for bank deposits is two to four weeks. Carol will do audits and help Ginny move about a year and half of data from old system to new system.

Programming – Matt : nominal

Membership – Doug: 347 member families as of January general meeting.

Star Parties – Matt V: .Messier Marathon is at OMSI Camp Hancock in March. Date is posted on RCA web site. Larry Godsey is handling registrations. Kah-Nee-Ta in April is also pending star party, see RCA web site for final details. Star party schedule for the balance of the year is posted on the RCA web site.

Community Affairs – Padraic: Groups, Clubs, Scouts, etc. who wish to have a star party and need resources from RCA please contact Padraic for help. His phone and email is listed on the officers page of the RCA web site.

Sales – Sameer: \$440 for January.

New Members – Carol: New members’ meeting at Carol’s house Feb 18th. Contact Carol if you wish to sign up.

International Dark Sky Association – Bob: Receiving email from various people asking questions about proper lighting practices. Haggart Observatory is model for good lighting, See the IDA web site for more recommendations.

AL – Dale: nominal

SIGs – Matt B: nominal

Magazines – Larry G: \$893.03 for January.

Editor – Larry D: There is a continuing need for articles for the newsletter. Please contact Larry for details. Anyone in the club like to do a monthly article???

Library – Jan: nominal

YRCA – Jenny: nominal

Webmaster – Dareth: nominal

OMSI – Peter: Conversation with Jim Todd, scope storage is a problem within the planetarium, need to find an alternative spot.

Telescope Library – Jeff: nominal

Copying – Deborah: nominal

Phone line: - Bob McGown will run the phone line for February.

Observing Site committee: nominal



Desert Sunset Star Party - May 13-16, 2004

The 2004 Desert Sunset Star Party will be held at the Caballo Loco Ranch, about 11.5 miles south of Three Points, AZ, on Rt. 286, and then east for 8 miles. This RV ranch is in a secluded area of Arizona with dark skies. The telescopes of Kitt Peak are in clear view to the west. The DSSP begins on Thursday night and runs through Saturday night. We will have a speaker on both Friday and Saturday evenings along with door prize giveaways. Registration information will be posted on the DSSP website:

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

Pat and Arleen Heimann



Rose City Astronomers 'Downtowner's' Lunch

Next Lunch is March 5th from Noon to 1pm

Join us on the first Friday of each month for lunch at the Great China Seafood restaurant (Holidays and such may push us to the second Friday of some months, check the calendar at <http://www.rca-omsi.org>).

Cost is \$6.50 for all-you-can-eat Chinese Buffet Lunch.

Great China Seafood restaurant

334 N.W. Davis, Upstairs on the 2nd floor

Great conversation and buffet lunch.

For more information contact:

Margaret McCrea at mmcrea@nwlinc.com



Vernal Equinox Celebration

March 27, 2004 - OMSI East Parking Lot

Don't miss the rare planet panorama in March and April!

Skywatchers, take note! In the latter half of March and the first few days of April, all five naked-eye planets can be seen simultaneously. In late March, both Mercury and Venus will be visible at dusk for viewers at mid-northern latitudes. This will be the most favorable opportunity for the next 32 years to observe all five bright planets in the evening sky. In order from west to east, the long planetary lineup will consist of Mercury-Venus-Mars-Saturn-Jupiter. The next clearly visible display of all five naked-eye planets will not occur until April 2036. On Saturday, March 27, the lineup of these five planets will span 135 degrees across the sky.

On Saturday evening, March 27, OMSI, Rose City Astronomers and Vancouver Sidewalk Astronomers will celebrate this rare planet viewing and the beginning of spring by hosting a free Star Party. Join us as we gaze at the planets and spring sky from OMSI's east parking lot, located at 1945 SE Water Ave, starting at 7:00 pm. From beginners to experts of all ages, here's your opportunity to view the visible planets, stars, and other objects up-close and personal through telescopes. For possible weather cancellation, call 503.797.4610 on March 27 after 3:00 pm to get the latest information.

(Note: Spring officially begins with the vernal equinox on Friday, March 19 at 10:49 pm PST.)

Jim Todd

SPECIAL INTEREST GROUPS

ASTROPHYSICS / COSMOLOGY

Date/Time: Thursday, March 18, 7 PM.

Speaker/Topic: James Gardner "Biocosm" - his latest published book.

Place: Linus Pauling Complex, 3945 S.E. Hawthorne St., Portland.

Contact: [Bob McGowan](mailto:Bob.McGowan@omsi.org) (503-244-0078) or [Doug Huston](mailto:Doug.Huston@omsi.org) (503-629-8809) for more information.

ASTROMETRY, PHOTOMETRY, & SPECTROSCOPY SIG

For those interested in the use of CCD's as applied to some of the scientific aspects of astronomy, particularly astrometry, photometry, and spectroscopy.

Contact: Jim Girard argojg@comcast.net for more information.

ASTRO IMAGING SIG

Date/Time: Thursday, March 18, 7:30 PM.

Place: Seans Astronomy, 24209 NE 92nd Ave. Battle Ground, WA.

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.

For information please contact:

Mike Cole @ 360-604-7865 mrcole@earthlink.net

TELESCOPE MAKING WORKSHOP

Date/Time: Saturday, March 13th, 10 AM - 3 PM.

Place: Technical Marine Service, Inc. 6040 N. Cutter Circle on 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.

Fern Hill Elementary Star Party



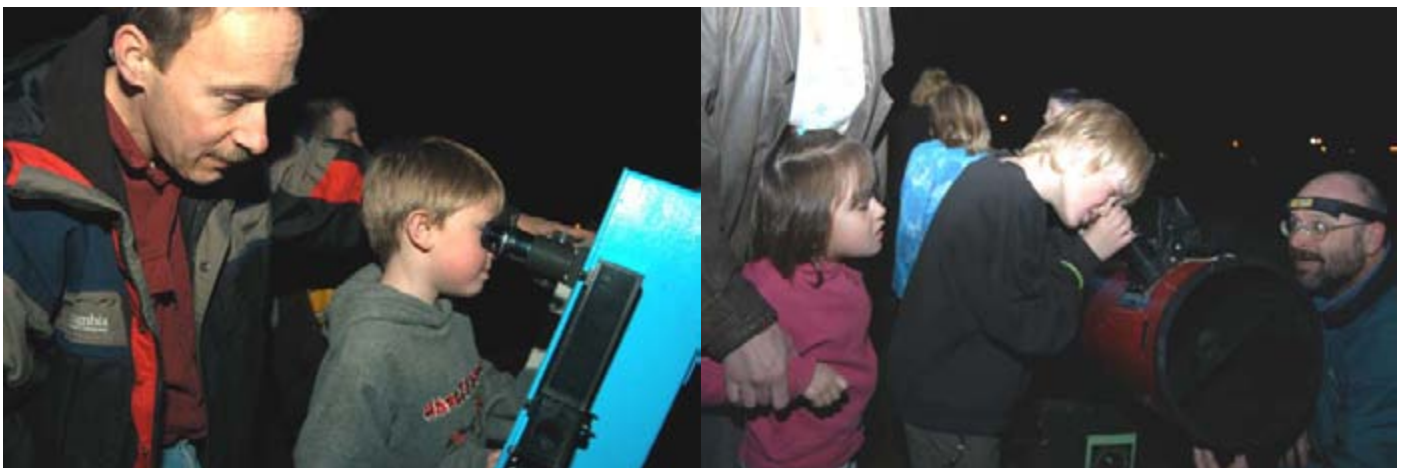
On the evening of February 24, Fern Hill Elementary had an event to showcase what students had been learning. Throughout the last two months, Space Technology and the Solar System were the science topics studied by all 2nd Graders in the Forest Grove District. The event began with a musical performance about the solar system, and then rotated through classrooms displaying the science projects the students had accomplished. The highlight of the night was the star gazing opportunities provided by our RCA volunteers. Although the weather was dodgy, the clouds parted enough to give the 70 students and their families glimpses of the moon, planets and a nebula.

RCA would like to acknowledge the following volunteers for sharing their time and knowledge of the sky with these children and their families:

- Mark Dakins
- Greg Rohde
- Kevin Farley
- Dave, Josh & Tim Sandage
- Stan & Jan Seeberg

Everyone had a great time. Thank you all for volunteering!

If you would like to know more about how you can volunteer your time to help with a star party contact Padraic Ansbro, VP Community Affairs, whiteowl@ansbro.com.



BE PREPARED - STAR PARTY SUPPLIES

by RCA Member Carol Huston

Star parties are a fun way to get out, view the heavens, and further your experiences with other enthusiastic amateur astronomers. Your enjoyment at these functions can be enhanced by preparing ahead of time to be comfortable and equipped. Following are some suggestions to help you set the stage for an enjoyable evening of viewing.

- Warm clothes: Good dark sky sites are often at high elevations. Once the sun goes down, the temperatures drop, and chilling becomes a factor, even in the summertime. Warm dress is a must and don't forget a hat. Dressing in layers is an easy way to prepare for a variety of conditions. You might consider: insulated underwear, a couple of shirts, jacket or windbreaker, head covering, scarf, earmuffs, heavier socks, boots or other warm footwear, and gloves. You can peel off or add layers as temperatures vary. Some people even bring a sleeping bag to wrap up in if it gets particularly cold. One way to keep your hands and feet warm in **really** cold weather is to keep a supply of the "air-activated" hand warmers. Slip one in a glove and you can keep track of your fingers!
- Red filtered flashlights: Once eyes are dark adapted, any white or yellow light can hamper night vision. Red filtered light, however, does not damage night vision and so **ALL** lights used at the observing site should be covered by red filters. You can easily modify a standard flashlight by covering the lens with red construction paper, red fabric, red cellophane (thick layers), or red tail-light tape. (See "Respect Your Fellow Observer" for other tips on red-filtered lights.)
- Toilet paper (biodegradable is best). Most of our informal star party sites have no restroom facilities. Fortunately, the dark skies that enhance viewing also aid in the privacy aspects of nearby bushes and parked cars.
- Coffee, cocoa, snacks, garbage bag. Eating something with sugar while observing increases energy and body warmth. Hot chocolate or soda pop are good choices. Artificial sweeteners are not helpful.
- Folding chair, camp chair, or lawn chair. Some use their tail gate as a table.
- Star charts, eyepieces, extra equipment.
- Pen or pencil (be careful about water-soluble ink - it smears in the night dew). Keep in mind, red ink will not show up in the red light (experience is talking here).
- Extra batteries.
- Map to the area.
- Anything YOU think would make you more comfortable during your observing sessions!
- A good idea is to keep a bag ready in your car or home that contains some star party supplies so you are already half ready to go if an impromptu party is called.
- Develop your own permanent check-off list of star party supplies. It is pretty shaky to rely on memory forgetting your eyepieces 130 miles from town puts a damper on the observing session.



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



March 2004

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 2004

Mar 1	Mon.	RCA Board Meeting	OMSI Classroom 1	7:00 PM
Mar 5	Fri	Downtowner's Lunch	G. China Seafood	12:00 PM
Mar 9	Tue	Site Committee	Harland FS	7:30 PM
Mar 13	Sat.	Telescope Making Workshop	Swan Island	10 AM—3PM
Mar 15	Mon.	General Meeting	OMSI Auditorium	7:30 PM
Mar 18	Thu.	Astrophysics/Cosmology SIG	Linus Pauling House	7:00 PM
Mar 18	Thu	Astro Imaging SIG	Seans Astronomy	7:30 PM
Mar 19-20	Fri-Sat	Messier Marathon!	Camp Hancock	
Mar 27	Sat	OMSI Star Party	OMSI	7:00 PM

April 2004

Apr 2	Fri	Downtowner's Lunch	G. China Seafood	12:00 PM
Apr 5	Mon.	RCA Board Meeting	OMSI Classroom 1	7:00 PM
Apr 15	Thu	Astro Imaging SIG	Seans Astronomy	7:30 PM
Apr 19	Mon.	General Meeting	OMSI Auditorium	7:30 PM
Apr 22	Thu.	Astrophysics/Cosmology SIG	Linus Pauling House	7:00 PM
Apr 24	Sat	OMSI Star Party	Rooster Rock	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-oms.org>).

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

The

Rosette Gazette

Volume 16, Issue 4

Newsletter of the Rose City Astronomers

April, 2004



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Hubble Deep Field above courtesy R. Williams (STScl), the Hubble Deep Field Team and NASA

Moon photos below courtesy David Haworth

RCA General Meeting

Monday, April 19

“A Special Treat: Featuring Young Astronomers”

Ever find yourself wondering about the younger generation? For this month's program, we feature several young astronomers from Oregon Episcopal School and their astronomy projects. A variety of projects are represented such as comparing galaxy types and color including colliding galaxies, comparing varying magnitudes of eclipsing binary stars, and tracking sunspots visually and with SOHO magnetogram data.

OES in Portland is earning national recognition for its science program, which is perhaps the outstanding science program in the western half of the United States. OES science students have won national recognition including patents, published papers, and prestigious awards in the Intel Science Talent Search (formerly Westinghouse Science Talent Search), the International Science and Engineering Fair, and a Rhodes Scholarship. The student with last year's best astronomy project at OES published two papers in the Astrophysical Journal.

Please join the RCA, with family members, in welcoming and sharing with these students, and hear how they obtained observation time on the Canada-France-Hawaii Telescope on Mauna Kea and the First Light of the Faulkes Telescope on Haleakala. The first deep-sky photograph of the new 2-meter Faulkes Telescope was used to take photographs (a three color image of NGC 2207) for one of this year's OES projects.

Social Gathering: 7 pm.

Meeting Begins: 7:30 pm.

Location: OMSI Auditorium

CAMP HANCOCK

DARK SKY STAR PARTY WEEKEND

May 21st - May 23rd, 2004

Please do not enter the camp area before 3pm on Friday

Mail-in Registration ONLY

Registration Deadline is Monday, May 17th

Unless we reach maximum capacity earlier.

See the RCA web site for complete information.

(Continued on page 4)

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

Full Moon

April 5, 3:03 AM. PDT

Last Quarter Moon

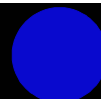
April 11, 7:46 PM. PDT

New Moon

April 19, 5:21 AM PDT

First Quarter Moon

April 27, 9:32 AM. 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	geometer@comcast.net
VP Observing	Matt Vartanian	(503) 244-5023	matt@vartanian.net
VP Community Affairs	Padraic Ansbro	(503) 349-3864	whiteowl@ansbro.com
VP, Communications	Matt Brewster	(503) 740-2329	m_brewster@juno.com
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Library Director	Jan Keiski	(503) 293-3281	jikeiski@comcast.net
Telescope Director	Jeff Henning	503-656-3041	j42h@aol.com
Media Director	Padraic Ansbro	503-349-3864	whiteowl@ansbro.com
IDA Liaison	Bob McGown	(503) 244-0078	bobmcgown@comcast.net
OSP Liaison	Dareth Murray	(503) 957-4499	darethlee@comcast.net
Camp Hancock Liaison	Glenn Graham	(503) 579-1141	the_grahams@verizon.net
Subscription Director	Margaret McCrea	(503) 675-5217	mmcrea@nwnlink.com
SIG Director	Matt Brewster	(503) 740-2329	M_brester@juno.com
Youth Programs Director	Jenny Forrester	(503) 504-8070	jenny@theforrest.org



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-oms.org/siteindex.htm>
Then click on any of the magazine links. Margaret McCrea, 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.



**President's
Message**

By
Peter Abrahams
April 2004

An unusual telescope was made in Cornelius, Oregon, by Leslie Long and Jesse Watson, sometime in the late 1920s, and placed at Pacific University in Forest Grove, for use by students. The mirror was six inches in aperture, ground and polished by Long, his workshop being the great outdoors, with Foucault testing

done in his living room in spite of problems with thermal irregularities in the air. The mirror and cell were placed at the end of the tube, which was attached to the mount near the Newtonian secondary. A plumber's T joint was machined in a lathe to house in its side a bearing for the declination axis. The focuser, eyepiece tube, and a 3/4 inch prism were fitted into the perpendicular half of the T. The Newtonian secondary, a 1 1/2 inch prism, was mounted in the main tube, so that both prisms were aligned in the hollow declination axis. The eyepiece was held at the end of the polar axis.

This mounting was a form of Springfield, with a stationary eyepiece, built by Watson, who machined the parts out of metal stock. It was adjustable for different latitudes, and the gearing for the drive could likewise be used at these varying angles. A motor from a phonograph was used as the drive, mounted inside the steel pier. The drive shaft was a front spindle from a Ford, with gearing and a friction clutch inside the Ford brake drum. The clutch permitted moving the shaft independently of the gears. Two counterweights are necessary on a Springfield type mount, one on the declination axis and one on the polar axis. This complex design allows the observer to be seated and stationary during observation of any part of the sky. It is not known where this telescope is today. It is described in *Scientific American* of February, 1929.

Peter Abrahams

A PASSION FOR ASTRONOMY

By Dale Fenske, Historian

Portland astronomy won't be the same with the passing of Del Wiseman. Del shared his passion for astronomy with everyone. During the 70's and 80's his name was synonymous with astronomy. The local news media would quote him. He was considered the personal reporter for KGW, channel 8 TV. He loved to perform public outreach star parties, and would patiently explain astronomy events and objects to an awe-struck audience.

Del was more than just the icon of the Portland Astronomy Society. He was president of the club for three years and led numerous astronomical projects.

- Mount Hood Community College has a unique observatory with a solar telescope specifically designed by Del.
- He spearheaded the Portland Public Astronomy Center in the St. Johns area. He openly voiced disappointment for not being able to complete it.
- He was consulted for the planning and building of the Goldendale observatory.
- Expertise in grinding his own mirrors and lenses were part of his legacy. His favorite telescope was about 8 feet long and sported a home-built 6" refractor lens.
- Articles were written about him and by him and many were published in such magazines as Sky & Telescope and Modern Astronomy.
- Experiments in "Real Astronomy" were his forte. Del and Dick Linkletter from Washington once organized a large group of amateur astronomers scattered from Eugene, Oregon to Seattle Washington. A stars distance is so great, that starlight travels almost in a straight line. They observed the occultation of a star by an asteroid to track the shadow it produced. Mapping this shadow made it possible for them to accurately determine the asteroids shape and size.
- Before the advent of the CCD camera there was film. Del experimented with film using a cold camera. He used dry ice to hyper film and make it more sensitive to light. He was then able to photograph deep-sky object in minutes instead of hours. He was an avid astrophotographer.
- He loved the computer. Compared to modern computers, Del's 8 mgz IBM PC was very slow and archaic. But the programs he personally compiled were amazing. I have most of them on the old 360 Kb floppies. One program I remember allowed me to input the orbital elements of an object after only three observations. The computer would calculate the complete orbit, so the object could be tracked years later. Another program was a ray-tracing program that followed frequencies of light through different refractive indices of various glass lenses.

Del Wiseman died February 25, 2004 at the age of 82. He will be missed by all who knew him. We are reminded of him every time we see one of his many astronomical accomplishments. He truly lived astronomy and was a great example of what the passion of astronomy is about.

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



We're going back to Camp Hancock for another great weekend! (continued from page 1)

Camp Hancock is an OMSI sponsored field station for the promotion of science education. It is located about 150 miles from Portland and is 2 miles east of the John Day river in Eastern Oregon in the Clarno Fossil Beds. For maps, pictures, and more info go to the RCA web site or the OMSI Hancock web site.

Camp Hancock is NOT a resort hotel, it is a rustic children's camp with 16 bunkhouses that sleep up to 14 people in A-frame buildings. The bunkhouses are one room with bunks, mattresses, limited electricity and heaters on a 60 minute timer. You will be sharing the bunkhouse with others.

Lodging:

The bunkhouses are not reserved, except by prior arrangement for medical necessity. Bring your own warm sleeping bag (it will be cold at night) and whatever else you need. Please inform Larry Godsey at larrygodsey@att.net or 503-675-5217, as soon as possible if you have special diet needs or have medical issues. One of the cabins will be set aside as a "ladies only" bunkhouse and one as a "men only" bunkhouse. The remaining bunkhouses are first-come and you will be sharing with others.

There is a Ladies bathroom is at the east end of the Dining Hall. The Men's bathroom is near the office. They both have hot water and showers, but bring you own towels and shampoo. There is also men's and ladies' pit toilets near the viewing areas.

There is a limited area for RVs and Trailers. We've been usually able to provides some limited electricity to most of the RVs and trailers, but bring your own power cord, and be prepared to be self sufficient in case there is not enough power available. There is a lot of room to park if you do not need electricity.

There is a tent camping area, but only two wooden platforms available. There is NO tent camping south of the Water Tower, that area is Park Service land and not part of Camp Hancock.

Meals:

Camp Hancock offers breakfast, sack lunch, and dinner for our event (no breakfast or lunch on Friday and no dinner on Sunday.) The meals are served family style and everyone is expected to help with setting up, clearing the tables and doing dishes. Breakfast is served at 9am Saturday and Sunday, with fixings put out for making a sack lunch at 10am both days. Dinner will be at 6pm on both Friday and Saturday.

There is a Coffee Pot and Hot Water during the night, but bring your own midnight snacks.

There are NO soda or snack machines in the camp and meals are NOT available out of hours. If you bring any snacks they must be kept in critter-proof containers.

Please inform Larry Godsey at larrygodsey@att.net or 503-675-5217, as soon as possible if you have special diet needs or have medical issues.

Camp Hancock Guidelines:

DO NOT ENTER THE CAMP AREA BEFORE 3PM ON FRIDAY

Camp stoves only, no open fires

NO PETS (this has been an issue in the past, please respect the Camp's rules)

No Bicycles on the grounds or park trails (insurance/safety rule)

Children must be monitored at all times

No camping or parking on the surrounding park service land

The Staff housing area is off limits to guests

Everything must be paid for with your registration and meals can NOT be purchased on-site.

Breakfast is \$3.75 per person per day (Saturday & Sunday) - 9am

Sack Lunch is \$3.50 per person per day (Saturday & Sunday) - 10am

Dinner is \$4.75 per person per day (Friday & Saturday) - 6pm

RVs, Trailers and Tents are \$8 per night per unit, not per person.

Bunks in the A-frame bunkhouses are \$14 per person per night.

(Continued on page 5)

Camp Hancock weekend (Continued from page 4)

Registration:

Mail In Registration and Payment Deadline is Monday, May 17th and there will be NO REFUNDS AFTER that date. We will cut off registration if we reach capacity of 100 people earlier.

There is more information on the web, including an order form you can fill out on-screen. The information, including pictures, downloadable Camp Hancock information, Clarno Fossil bed information, Driving maps and instructions, etc. will also be found.

Registration Form:

Activity	Friday May 21	Saturday May 22	Sunday May 23	Total
Breakfast \$3.75	NA			\$
Lunch \$3.50	NA			\$
Dinner \$4.75			NA	\$
Bunkhouse Lodging \$14.00			NA	\$
RV/Trailer/Tent \$8.00			NA	\$
			Totals	\$

Please make checks payable to “Rose City Astronomers” and MAIL check and form to Larry.

Name:	Send this form and your Check
Address:	to
City, State, Zip	Larry Godsey
Telephone	P.O. Box 513
Email	Marylhurst, OR 97036
Number Attending	.

**Registration deadline is May 17th or when we reach capacity of 100 people
No refunds after May 17th**

Please do not enter the camp area before 3pm on Friday

Rose City Astronomers ‘Downtowner’s’ Lunch

Next Lunch is April 2nd from Noon to 1pm (by the time you read this, more likely May 7). Join us on the first Friday of each month for lunch at the Great China Seafood restaurant (Holidays and such may push us to the second Friday of some months, check the calendar at <http://www.rca-omsi.org>).

Cost is \$6.50 for all-you-can-eat Chinese Buffet Lunch.

Great China Seafood restaurant

334 N.W. Davis, Upstairs on the 2nd floor

Great conversation and buffet lunch.

For more information contact: Margaret McCrea at mmcrea@nwlinc.com



April is galaxy time, and time for me to get back to writing these monthly columns for the Rosette. I've been buried at work the past 8 months, and have used almost all my free time, which hasn't been much, to start construction of a new telescope. That is, after building a workshop, and a series of shelves in the basement, and putting up closet doors, and well, a lot. Enough said, I'm back and hope to be a regular contributor to the Rosette again.

Some of my favorite deepsky objects are well placed in the April sky, so let's get back in the saddle by having a look. Disclaimer: regardless of what size scope you have, all the following objects are best appreciated in a truly dark sky. Even in ideal conditions, their details will be subtle and faint. Visual observations from the city or suburbs will be disappointing, but instructive on the effects of light pollution.

So what the heck, give them a go from your backyard anyway and then renew your membership to the International Dark Sky Association (www.darksky.com).

This is the best time of the year to observe the Whirlpool Galaxy, M51, as it will pass overhead nearly at the zenith around midnight. There is no finer face-on galaxy that reveals its spiral structure as well as the Whirlpool. But it's also easy to "see" more than is actually visible, as the eye is accustomed to the spiral structure so easily seen in photographs.

Removing expectation is one of the more difficult things to do when observing, but if you're able to do so with the Whirlpool you'll come away with a new appreciation of what the great observers of the 18th and 19th centuries saw through their telescopes.

For instance, do you really see a spiral shape? Or is it more of a ring – look carefully, can you really see the spiral arms go all the way to the core of the galaxy?

Same thing goes with the spiral arm that we so easily see in photographs extend toward the Whirlpool's companion galaxy, NGC 5195. Do you really see it?

The answers to both questions depend on several factors; the size of your scope, the clarity and darkness of the sky, and your experience. So the answers will probably vary each time you have a look. All part of the fun, so keep an open mind and maybe surprise yourself.

Also passing the zenith, but about 3 hours earlier than the Whirlpool, is the Double Quasar, 0957+561 A+B. You'll need at least a 16 inch scope to even detect this nearly 17th magnitude gravitationally lensed quasar – and yes, there are those who can do it with a smaller scope – so go ahead and give it try. The fun here is to detect it, since being able to see even a few 5 billion year old photons is a rare and mind expanding treat.



In the above sketch, the DQ is the faint double "star" just right of center

Regardless of your luck with the DQ, the wonderful edge on galaxy NGC 3079 is in the same medium power view, as are a couple much fainter galaxies. So even if you don't have any luck snaring some really, really old photons, perhaps a bunch of nicely aged ones will do.

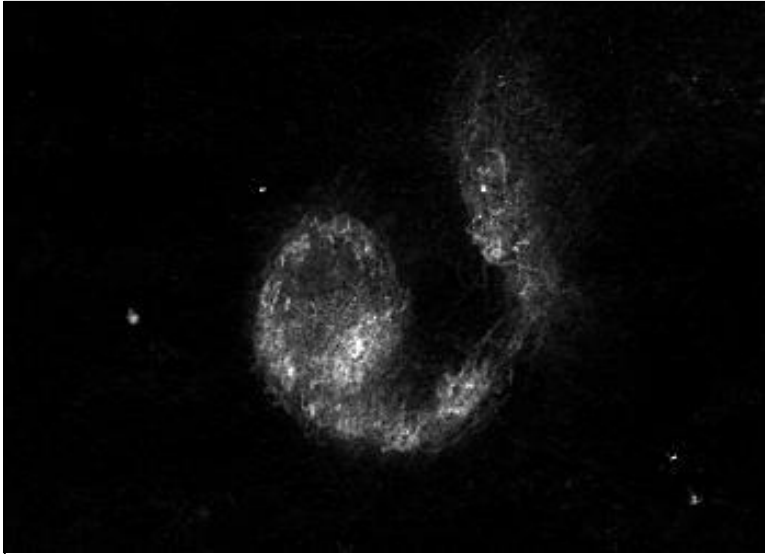
NGC 2903, near the nose of Leo, is another fairly bright galaxy that a moderately sized scope will show with spiral arms in the best conditions. It's also pretty easy to find, and if you like to star hop as I do, then you'll probably remember exactly where it is after just a few visits. 2903 is a barred spiral that's presented to us at a slight angle, so it appears somewhat elongated, and with a bright core. Pump up the magnification well beyond what you normally use and you might see some mottling in the arms as well. Can you see that it's a barred spiral?

(Continued on page 7)

The Observer's Corner (Continued from page 6)

Continuing south to eastern Corvus we come to NGC's 4038 and 4039, the Antennae Galaxies. Two for the price of one, these galaxies are gripped in a spectacular gravitational tidal disruption that will ultimately result in them merging into one large galaxy. As grand as that sounds, what we see through our scopes very often looks like a small, faint, gray shrimp. Look past the shrimp shape and imagine the colossal energies being generated by the mixing of these two galaxies.

In the very best conditions a larger scope at medium to high powers will show some of the huge star associations that are forming as a result of the galactic merger. The cores of the two galaxies are also visible. With 20" and larger scopes under exceptional conditions, some observers have reported seeing the long and very faint tidal streams that gave rise to the name "Antennae", but I have yet to glimpse them. Maybe through my new scope...



M51, the Whirlpool Galaxy

M51, the Whirlpool Galaxy

RA 13 hours, 29.9 minutes, declination + 47 degrees 12 minutes. Size 8.2' x 6.9' (NGC 5194, magnitude 8.4) and 6.4' x 4.6 (NGC 5195, magnitude 9.6).

Sky Atlas 2000 chart 7, Uranometria page 76.

Double Quasar, 0957+561 A+B

RA 09 hours, 57 minutes, declination + 56 degrees 10 minutes. Variable magnitude 16.7 to 17.2

SA 2000 chart 2, UA page 45.

NGC 3079

RA 10 hours, 02 minutes, declination + 55 degrees 41 minutes. Size 8.0' x 1.5', magnitude 10.9.

SA 2000 chart 2, UA page 45. Fainter galaxies in the same field is NGC 3073 (magnitude 13.4), MGC +9-17-9, magnitude 13.8.

NGC 2903

RA 09 hours, 32.2 minutes, declination + 21 degrees, 30 minutes. Size 9.0 x 5.6, magnitude 9.0.

SA 2000 chart 6, UA page 143.

NGC's 4038 and 4039

RA 12 hours, 02 minutes, declination - 18 degrees, 52 minutes. Sizes 5.4' x 3.9' and 5.4' x 2.5'.

SA 2000 chart , UA page 327.

Profiles in Membership



Date: 03/15/04 general meeting

Name: Dan Sullivan

How Long in RCA: Three months or so

Number of Telescopes owned: One; Mead ETX 60

Telescope most used: Same

Observing site most used: Backyard

Next observing project/challenge: Film Astrophotography



BOARD MEETING MINUTES

MARCH 1, 2004
OMSI Classroom 1
Ken Cone

Present: Peter Abrahams, Ken Cone, Dale Fenske, Carol Huston, Bob McGown, Dareth Murray, Ginny Pitts, Deborah Smith-Hirshmann, Matt Vartanian, Padraic Ansbro, Jan Keiski

Treasurer – Ginny: \$16,300 in our accounts.

Programming – Matt: Gus Frederick of Oregon Mars Society is speaker for March.

Membership – Doug: 361 member families.

Star Parties – Matt V: Messier Marathon at Hancock in March is filling up, 72 people signed up as of 3/1/04. Upcoming April 16 star party at Kah-Nee-Ta should be excellent. Be sure to sign up early. Check RCA web site for star party schedule details.

Community Affairs – Padraic: Fern Hill Elementary star party with 2nd and 3rd graders was very well attended. Thanks to RCA members who volunteered their time.

Sales – Sameer: \$440 for February.

New Members – Carol: Held new member orientation workshop for 16 people.

Dark Sky Association – Bob: There is new DSA recommended sodium lighting along N.E. 28th street next to I-84. Look for the orange lighting in the area.

AL – Dale: Astronomical League has a new Earth Orbiting Satellite Observers Club, check out <http://www.csastro.org/eosoc/> for details.

SIGs – Matt B: nominal

Magazines – Larry G: Magazines for February was 16 magazine subscriptions for \$492.59.

Editor – Larry D: nominal

Library – Jan: Mars Rover videos in DVD and VHS formats are available in the library. Jim Todd, OMSI, sent some of Jan's photos from the OMSI Opportunity landing party to NASA for possible inclusion in a presentation they are making to Washington DC concerning public interest in the landings.

YRCA – Jenny: nominal

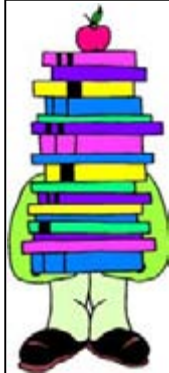
Webmaster – Dareth: nominal

OMSI – Peter: nominal

Telescope Library – Jeff: nominal

Copying – Deborah: nominal

Phone line: - Dale will run the phone line for March.



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>

SPECIAL INTEREST GROUPS

ASTROPHYSICS / COSMOLOGY

Date/Time: Thursday, April 22, 7 PM.

Speaker/Topic: Bob McGown "Hubble Expands 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.

ASTRO IMAGING SIG

Date/Time: Thursday, April 15, 7:30 PM.

Place: Mike Cole's Home, 9505 NE 131st Ave. Vancouver, WA.98682

Mike will be showing his observatory and digital processing/printing room. Live Astro-Imaging demonstration if weather permits.

For information please contact:

Mike Cole @ 360-604-7865 mrcole@earthlink.net

TELESCOPE MAKING WORKSHOP

Date/Time: Saturday, April 10th, 10 AM - 3 PM.

Place: Technical Marine Service, Inc. 6040 N. Cutter Circle on 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.

OMSI ASTRONOMY DAY CELEBRATION!

April 24, 2004 - Rooster Rock State Park

A starry phenomenon is about to occur in the spring skies, on of all days, National Astronomy Day 2004. Four visible planets and Earth's moon will dance across a palette painted by dusk April 24, when Venus, Mars, Saturn, Jupiter and the waxing crescent Moon will gather in the west in the evening sky.

"It is rather unusual to have four planets in a nearly straight line," said Jim Todd, Planetarium Director at the Oregon Museum of Science and Industry, "and the waxing crescent Moon will certainly add drama. What a perfect way to celebrate National Astronomy Day," he added. Todd said that this is an excellent opportunity for star watchers to view the planets, as telescopes aren't needed. "That's another aspect that makes this occurrence unique - the fact that we'll have four naked-eye planets in the evening sky," he said.

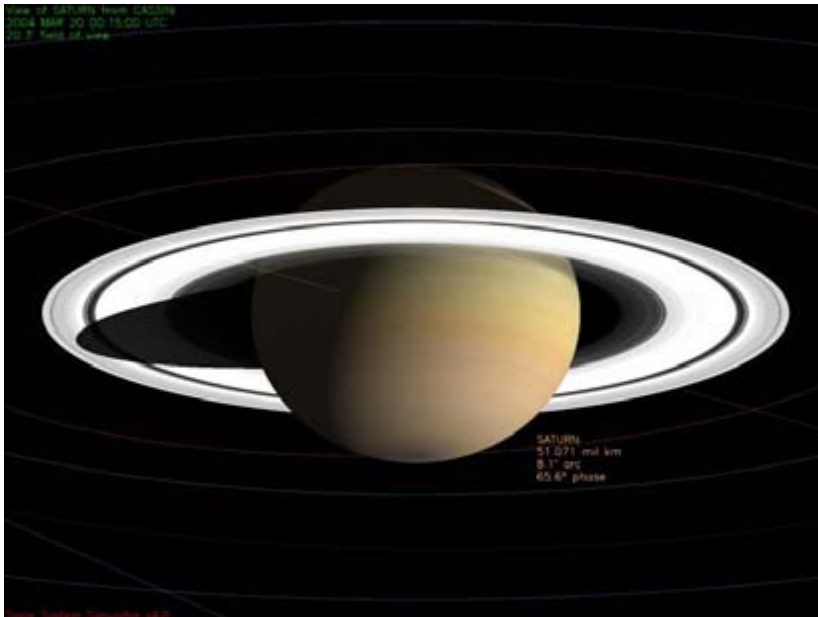
Looking from west to east, Venus will be closest to the horizon, with Mars, and Saturn nearby, although they will not be equally bright. The waxing crescent Moon will be just 4 degrees from Saturn's right. Jupiter will be considerably higher in the sky. Venus will dip below the horizon first, so the planetary line up will be visible from just after sunset at 7:09 p.m. until about 11:10 p.m. Jupiter, the last of the planets, will set around 3:23 a.m.

To celebrate the event, OMSI, Rose City Astronomers (RCA) and Oregon Parks and Recreation are throwing an Astronomy Day Star Party at Rooster Rock State Park in the Columbia Gorge on Saturday, April 24, weather permitting. The free event starts at 7:30 p.m. at the park, located just east of Sandy off I-84. Members of RCA will make their telescopes available to anyone who attends, and Todd will present informal talks on the occurrence.

Although the planets will be visible for several evenings before and after April 24, Todd said that evening will offer the best viewing, as the planets will line up in an almost straight line. He also said that this event will probably be the most exciting of 2004. "Other than the Comet NEAT in May 2004, and short of the unexpected, this is the best known event for the year," he said.

Todd said that although the planets can be seen in the city, the best viewing is away from clusters of bright lights.

For those who plan to travel to Rooster Rock State Park, it is advised to call OMSI's Star Party Information Line at 503-797-4610 after 3:00 pm to check for possible cancellations due to weather. Parking at Rooster Rock is \$3 per carload or \$1.50 for OMSI members.



As of 1:30 PDT on Saturday, March 20, Cassini is just over 51 million kilometers (about 30 million miles) from Saturn, and we are just

over 82 days away from a flyby of Phoebe, Saturn's strange outermost moon on June 11. Phoebe is in a retrograde (reverse) orbit at a high angle to the ring plane and is considered to likely be a captured asteroid. The view of Saturn from the Cassini spacecraft is shown.

The most recent spacecraft telemetry was acquired from the Goldstone tracking station was on Monday, March 15, and the Cassini spacecraft is in an excellent state of health and is operating normally.

Additional information on the Cassini/Huygens mission to Titan can be found at <http://saturn.jpl.nasa.gov/index.cfm>

Dr. David H. Atkinson, Professor
Associate Director, Idaho NASA Space Grant & NASA EPSCoR
Department of Electrical and Computer Engineering
University of Idaho,

Escape to Arch Cape!

By Bob McGown & Dareth Murray

Dareth & I recently had a great opportunity to visit and observe with fellow RCA members Tim and Carol Crawford at their home & observatory in Arch Cape on the Oregon coast. Arch Cape is about four miles south of Cannon Beach and their house is tucked away nearby the thundering surf.



View from our window at Shaw's B&B

We had reservations at Shaw's Bed & Breakfast and found ourselves in a charming home right on the beach for the next two days. As it happened, we were barely a stone's throw from Crawford's place so we could walk over to the observatory in a matter of minutes. Saturday night did not seem auspicious, as it was partly cloudy and threatening to rain.

When we arrived at Shaw's at 7 p.m. we phoned Tim to let him know we were there. He told us to come over later on - perhaps it would clear up. After looking around our cozy digs, we wandered out to the back porch and saw the ocean about 50 feet away! In the winter, there is not much sandy beach there and high tides bring the sea right up to the garden gate shown in the picture above. The rock in the distance is 'Queen Victoria' or Castle Rock. Then we looked up and saw stars! Quickly we called Tim and he told us to come right over. In a few minutes we were in Tim & Carol's backyard and on into the observatory. Tim is very proud of his observatory & telescope and rightly so. He has observed at OSP with other scopes, resulting in several years of OSP stickers adorning the observatory pier.

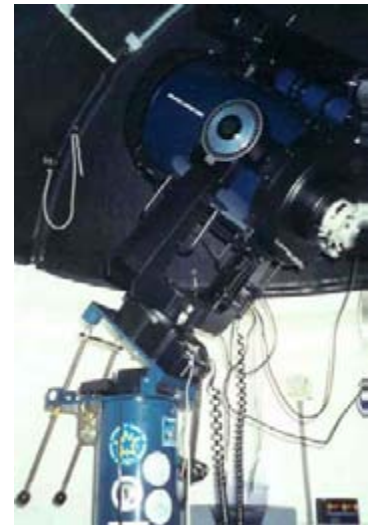
The Mead LX- 200 12 1/2" F10 is on a polar aligned extra heavy mount. The LX-200 has been supercharged with an upgrade by Dr. P Clay Sherrod (www.arksky.org). The scope has a custom fine focus wheel made by Van Slyke Engineering (www.observatory.org) and a dew zapper distribution system with a zapper on the corrector plate, the telrad and the spotting scope. This is to combat the moisture problem that comes from living on the coast. Tim uses a Dew Buster Controller with a temperature sensor with Kendrick heaters. The control paddle has an after-market joy stick for fine slewing of the telescope.



The observatory itself is an 8 1/2-foot diameter model by Clear Skys, Inc. (www.clearskysinc.com). The wall height is 54 inches and the center height, inside, is 106 inches with a slot width of 24 inches when opens to just past the zenith of the dome.

The isolation pier is off-set to the south in the floor of the observatory which not only allows from 3-4 people to be inside the observatory at once but also assures that the declination axis of the SCT, mounted on the polar plate, is centered with the observatory and the dome.

With the clearing of the sky, we were able to get some pretty good observing in. We followed Mars early in the evening but Saturn was the observing highlight with banding coming in and out of view, along with the Cassini Division. There was a little moisture in the air so my new 7-watt green laser pointer was extremely effective! The Orion Nebula and M34 & 35 in Auriga were quite distinct. After a few hours, we felt the first drop of sea drizzle, closed the dome and called it a night.



(Continued on page 11)

Escape to Arch Cape! (Continued from page 10)

We wanted to see the observatory again, so strolled over to Tim & Carol's in the early afternoon the next day. I didn't have much trouble talking Tim into showing me his excellent meteorite collection. It is well organized with a large binder indexing each meteorite and giving its background. The collection is impressive with a number of classic falls as well as a pallasite and a 2 centimeter (616 grams) Dar al Gani Mars rock; there is also a micromount Ensisheim which is the second oldest (1492) witnessed fall with material still in existence.



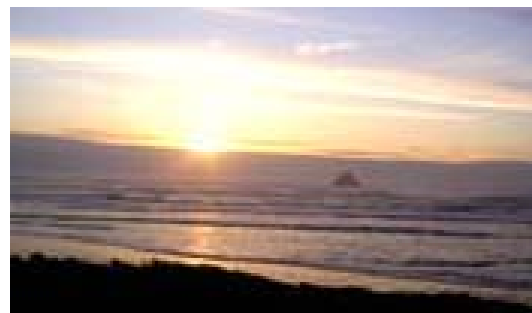
After checking out the observatory in the daytime, I challenged Tim to a game of chess. This is a fun way to pass the time and always reminds me of Richard Feynman's classic remarks about chess and the laws of physics. He once said that discovering the laws of physics is like trying to learn the laws of chess when you are only able to observe just one small section of the chessboard.

You notice that bishops stay on the same colored squares; you write this down as a law of chess. Later, you come up with a better law - bishops move diagonally. And, since diagonal squares are always colored the same, this explains why bishops always stay on the same color. This law is an improvement - it is simpler, and yet explains more. In the 'chess game' of physics, after first understanding Newton's theory of gravity going on to Einstein's theory of relativity is the same type of discovery.

Similarly, noticing that pieces don't change their identity in a chess game is similar to discovering the law of mass-and-energy conservation. After watching many chess games, you notice to your surprise that if a pawn reaches the other end of the board it can be promoted to become a queen. In the same sense, quantum perturbations can have an effect on the outcome of the universe. Does this violate the laws of chess? Can pieces change their identity? But it does not violate the laws of chess. You now know another law of the game, which takes your observations to the next level.

After the chess game (he got my queen, what can I say), Dareth pulled out the Richard Feynman US Postal Stamp petition and Tim and Carol were pleased to sign. We also talked about Feynman's obsession with Tanna Tuva and the unique throat singing competition that goes on there every year. Tim just happens to play the Native American flute and has two hauntingly beautiful CDs of his original music (<http://hoptpage.mac.com/windwalker1/WindWalker001.htm>). He told us that the Tuvan throat singing reminded him of the time in history when the King of England banned (1746-1782) the Scots from playing bagpipes (among other things) so they used their voices in a "sing-song" that could imitate and convey the pitch and length of the notes and all grace notes occurring in the playing of the Scottish bagpipes. If you want to know more about Tuvan throat singing log on to www.friendsoftuva.com

Sunday evening was not so good for observing but Dareth and I wandered down to the beach at low tide and caught glimpses of the planets and the waxing thin crescent Moon. It was a wonderful birthday weekend for Dareth and we both regretted having to come back to work on Monday morning!



Observing Site Committee

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.

Next Meeting: Tuesday, April 13 2004, 7:30 PM - 9:00 PM

Please Check <http://nemoworld.com/RCA/sitehome.htm> To Confirm and for more information.

or Contact: [David Nemo](mailto:david6366@msn.com) <david6366@msn.com>

Harland Financial Solutions
400 SW 6th Avenue, Portland

Conference room on entry level. Sign-in at Guard Station



CLASSIFIED ADS

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

FOR SALE:

Telescope, Bushnell Banner Astro 280 Model 78-5500 with tripod. \$75.00. Call 503 656 2844 or leave a telephone number on answering machine. Lorenz Peyerl.



Hancock Field Station
March 2004
Photos by Jan Keiski



The future of intelligent life in the universe

The Drake Equation revisited

By Bob McGown

How can we estimate the future number of technological civilizations that might exist among the stars? What is the next step? It may be that the future of intelligent life is to evolve into a space-faring society and shape the very universe. Dr. Frank Drake conceived an approach to integrate the terms involved in estimating the number of technological civilizations that may exist in our galaxy or even the universe. The Drake Equation, as it has become known, was first presented by Drake in 1961 and identifies specific factors thought to play a role in the development of such civilizations. Although there is no unique solution to this equation, it is a generally accepted tool used by the scientific community to examine these factors.

Our present knowledge and theories of the evolution of the universe modify the original Drake equation. We had recent discussions with Freeman Dyson and he has considered these concepts for many years. The Drake equation could be extended to include double stars (do), life evolving into space (nl), digital life in space (nt), and closed loop universe evolution (ce). Additional factors that shape the equation change the life of a civilization. We view the possible evolution of life into much differently in the 21st Century. The modified Drake equation follows:

$$N = R^* \cdot do \cdot fp \cdot ne \cdot fl \cdot fi \cdot fc \cdot nl \cdot nt \cdot ce \cdot L$$

N = The number of civilizations in Local Galaxy group whose communication emissions are detectable.

R* = The rate of formation of stars suitable for the development of intelligent life.

dO = The double star multiple orbit in the life zone

fp = The fraction of those stars with planetary systems.

ne = The number of planets, per solar system, with an environment suitable for life.

fl = The fraction of suitable planets on which life actually appears.

fi = The fraction of life bearing planets on which intelligent life emerges.

fc = The fraction of civilizations that develop a technology that releases detectable signs of their existence into space.

nl= The number of planets that self replicating life has been genetically engineered to evolve into space and evolve into intelligent beings

nt= The number of self replicating and programmable digital life technologies that are engineered to evolve in space.

ce= The critical engineering level that an intelligent civilization would have to reach to alter the out come of the evolution of the universe to make future universes life friendly.

L = The length of time such civilizations release detectable signals into space (There is a question whether non-local faster than light communication may also need to be considered in the future).

Profiles in Membership



Date: 03/15/04 general meeting

Name: Rick Savard

How Long in RCA: One year

Number of Telescopes owned: Zero; uses nephews

Telescope most used: 8" Dob

Observing site most used: Own yard

Next observing project/challenge: Messier Marathon at Hancock in March

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

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April 2004						
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 2004

Apr 2	Fri	Downtowner's Lunch	G. China Seafood	12:00pm
Apr 5	Mon.	RCA Board Meeting	OMSI Classroom 1	7:00pm
Apr 10	Sat	Telescope Making Workshop	Swan Island	10am-3pm
Apr 15	Thu	Astro Imaging SIG	Seans Astronomy	7:30pm
Apr 19	Mon.	General Meeting	OMSI Auditorium	7:30pm
Apr 22	Thu.	Astrophysics/Cosmology SIG	Linus Pauling House	7:00pm
Apr 24	Sat	OMSI Star Party	Rooster Rock	Dusk

May 2004

May 3	Mon.	RCA Board Meeting	OMSI Classroom	7pm
May 7	Fri.	Downtowner's Lunch	Great China Seafood	Noon
May 17	Mon.	RCA General Meeting	OMSI Auditorium	7:30pm
May 20	Thu.	Astrophysics/Cosmology SIG	Linus Pauling House	7pm
May 21-23	Fri-Sun	RCA Dark Sky Star Party	Camp Hancock	After 3pm
May 22	Sat	OMSI Comet Watch	Rooster Rock	Dusk

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>

The

Rosette Gazette

Volume 16, Issue 5

Newsletter of the Rose City Astronomers

May, 2004



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- 6... Board Meeting Minutes
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..... Camp Hancock S.P.!
..... Site Committee
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10. Moon Dance
12. Calendar

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Hubble Deep Field above courtesy R. Williams (STScI), the Hubble Deep Field Team and NASA

Moon photos below courtesy David Haworth

ROSE CITY ASTRONOMERS GENERAL MEETING Monday May 17, 2004

The Self-Aware Universe Presented by Dr. Amit Goswami

Quantum cosmology has a basic unanswered question: how does the universe come into manifestation from quantum possibilities? Also, conventionally-based approaches cannot explain the anthropic principle, nor can they address questions about the evolution of life and consciousness. Dr. Goswami will show that if science is based on the primacy of consciousness, all these questions are satisfactorily answered. He will end the talk with a discussion of our evolutionary future.

Dr. Goswami is Professor Emeritus of the Institute of Theoretical Science at the University of Oregon.

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

MEMBER INPUT WANTED FOR OBSERVING SITE SURVEY

As announced at the April meeting, the Observing Site Committee is conducting a survey of members to get a sense of member interests, preferences and support for efforts to identify and secure - for club and members use - dedicated observing sites in the area.

If you haven't already voted, this is an online survey that can be accessed at the following website: <http://rca.speedsurvey.com> through May 8, 2004.

The Committee appreciates your input, and will report on the results in a future issue of the Gazette.

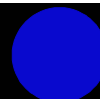
Deadline for submission of articles, ads, and photos for the Gazette is the 20th of each month.

Full Moon
May 4, 12:35 PM. PDT

Last Quarter Moon
May 11, 3:06 AM. PDT

New Moon
May 18, 8:54 PM PDT

First Quarter Moon
May 26, 11:58 PM. 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
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VP Community Affairs	Padraic Ansbro	(503) 349-3864	whiteowl@ansbro.com
VP, Communications	Matt Brewster	(503) 740-2329	m_brewster@juno.com
Treasurer	Ginny Pitts	(360) 737-0569	vepitts@comcast.net
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Web Master	Dareth Murray	(503) 957-4499	darethlee@comcast.net
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	Padraic Ansbro	503-349-3864	whiteowl@ansbro.com
IDA Liaison	Bob McGown	(503) 244-0078	bobmcgown@comcast.net
OSP Liaison	Dareth Murray	(503) 957-4499	darethlee@comcast.net
Camp Hancock Liaison	Glenn Graham	(503) 579-1141	the_grahams@verizon.net
Subscription Director	Margaret McCrea	(503) 675-5217	mmcrea@nwlink.com
SIG Director	Matt Brewster	(503) 740-2329	M_brester@juno.com
Youth Programs Director	Jenny Forrester	(503) 504-8070	jenny@theforrest.org



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-oms.org/siteindex.htm>
 Then click on any of the magazine links. Margaret McCrea, 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.



President's
Message
By
Peter Abrahams
May 2004

May 2004
 News from the organization:
 As I write this, the April 19 meeting has just ended. The description of 'high school science fair displays' was a real understatement. There were 11 amazingly advanced projects on display & under discussion. It was a real eye-

opener regarding what a motivated student can do these days. Thanks to Matt Brewster for arranging this. We should do it every year. 2004's observing season is beginning, with an excellent event at Camp Hancock already accomplished. All it has to do is stop raining & we'll be in great shape. Matt Vartanian has put together a very good calendar of events for RCA; next time you see him let him know how you like it. As noted in this Gazette, we have a survey for the site committee to use in establishing priorities for a club observing site. We really don't want to establish a site that is not what most members want, so please try to participate in this survey.

The board welcomes Margaret McCrea back to the board, this time as magazine subscription coordinator. If everyone who uses this service expresses their gratitude appropriately, she might stay on the job a long time. And we certainly want to thank Larry Deal for putting out the Gazette. The board thrives on feedback & needs to know what the members want out of the organization. Any format, any medium. I've even received letters in crayon on brown paper from bags (though they were from the kids' group). The only time feedback has been less than welcome is when it comes after midnight at OSP when I'm trying to look at something.....it just doesn't seem that important then.

Peter Abrahams

VINTAGE TASCO TELESCOPES—PART 2

By John W. Siple

For those of us familiar with older (1960's-70's) Tasco telescopes, we have memories of precision instruments with optics that deliver sharp, high contrast images of stars and planets. The views of open star clusters and some of the brighter nebulae rival those through modern and much more expensive achromatic refractors. Vintage Tasco Telescopes—Part 1 provides a detailed synopsis of Tasco instrumentation and the numerous quality features to be found on their scopes (see pages 3-5 in the July, 2003 issue of The Rosette Gazette Newsletter).

Astronomically speaking, both beginning amateurs and professionals alike had the opportunity to choose from a variety of models. The smallest usable telescope for neophytes is model #6TE-5 100X COSMIC, a wonderful 50mm. f/12 table-top refractor suitable for general lunar observation and viewing many of the brighter double stars. More advanced observers could select from Tasco's "ultra-precision" line, a series of superior quality imports from Japan that rival UNITRON refractor telescopes in craftsmanship. One of the most popular was Tasco's model #10TE (#15TE with motor drive), a 76.2mm. (3") refractor with a focal length of 1200mm. The larger light-gathering and resolving power allows the enthusiastic RCA club member to collect The Astronomical League's Double Star Certificate, Lunar Certificate, and under dark skies The Messier Certificate.

Shown below are five Tasco telescopes from the author's collection. Clockwise from top left: model #6TE-5 100X COSMIC, #12TE-5 (D=60mm. F=800mm.), #7TE-5 (D=60mm. F=1000mm.), #20TE (D=108mm. F=1600mm.), #10TE, and an instruction sheet for #4VTE ASTEROID (25-50X 40mm. Variable Telescope).



(Continued on page 4...)

VINTAGE TASCOS TELESCOPES—PART 2 *(Continued from page 3)*

Four of the five Tasco telescopes displayed are commonly available through Internet auction sites (#6TE-5 100X COSMIC and #12TE-5 usually bring \$25-75, while the #7TE-5 can sell for as high as \$250 and the #10TE \$350-400). Tasco's largest and most prestigious telescope, model #20TE, seldom is offered for sale and most units are either in observatories or private collections. There are a variety of other comparable Tasco refractors in the 60mm. (2.4") aperture class that perform elegantly; #9TE-5 234X STARBRITE is one such telescope.

IMPORTANT PARTS OF YOUR TELESCOPE

1. H20MM eye lens
2. HM12.5MM eye lens
3. HGMM eye lens
4. Sun filter
5. Erecting prism
6. 3X Barlow lens
7. Diagonal prism
8. Dust cap (not shown)
9. 60MM objective lens (not shown)
10. Dew cap or sun shade
11. Objective mount with three "squaring on" adjustment screws
12. Main telescope tube
13. Cradle with clamp screws
14. Finderscope mounting bracket
15. Finderscope objective (focusing)
16. Finderscope objective lock ring
17. Finderscope eye lens with cross-hair
18. Focusing tube with pinion gear and knobs
19. Focusing tube
20. Eye lens adapter
21. Flexible control for declination gear
22. Sun projection screen assembly
23. Declination axis
24. Declination axis clamp screw
25. Declination circle
26. Declination circle indicator
- 27A. Hour Circle Indicator (Moving)
- 27B. Hour Circle Indicator (Fixed)
28. Hour circle (outer)
29. Hour circle (inner)
30. Hour axis clamp screw
31. Flexible control for hour axis gear
32. Polar axis clamp screw (2)
33. Polar axis body
34. Latitude Indicator
35. Latitude Scale
36. Azimuth clamp screw
37. Declination axis body
38. Counter-poise shaft
39. Counter-poise shaft nut
40. Counter-poise weight
41. Accessory tray
42. Tripod
43. Wooden case (not shown)

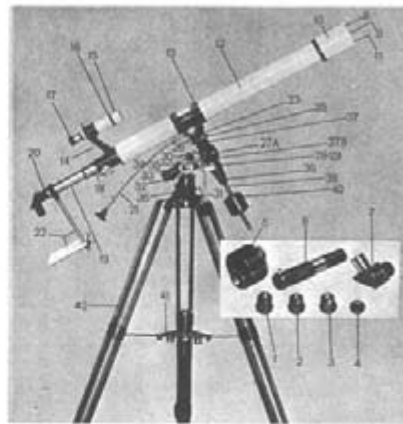


Figure 1

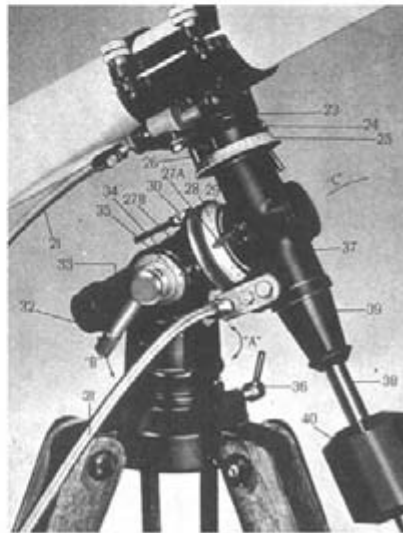


Figure 2

The layout above shows the parts diagram for model #7TE-5 (REG. NO. 57500, D=60mm. F=1000mm., 500X), a very popular refractor in the 1960's and 70's. Tasco sold another virtually identical telescope, model #7TE (REG. NO. 37304, D=60mm. F= 910mm., 304X, 146X, 90X). A variety of other companies that also imported telescopes from Japan marketed similar versions of the Tasco #7TE: ORBIT #2264, JASON #313, ASTRO-OPTICAL S-5, MONOLUX #4380, and OPTICA b/c stock #2005 are several examples. They all use a 910mm. achromatic doublet objective lens (most likely a Carton Optical Co. product) and castings from GOTO OPTICAL MFG. CO. of Tokyo, Japan. These are all of superior construction from a bygone era and many of our members either received them as gifts for Christmas or Birthdays, and sometimes as a hand-me-down. Quite a few must be residing in attics and basements and garages, just sitting in storage. Why not get the dust off, remove the scope from its wooden case and assemble it (always a fun project), and point it skyward on the next clear night? You might be astonished at the performance of that old collectible!

(Continued on page 5)

- * Tasco's smallest production scope is #1ATE METEORITE, a 25X pocket scope with a 30mm. objective.
- * #2TE COMET is basically the same as #1ATE but has an added tiny table-top tripod and is rated 30X. The focal length is 220mm.
- * Tasco sold a variety of variable power telescopes. One of its more unique items is a 15-45X ELECTRIC ZOOM TELESCOPE.
- * A popular Tasco 60mm. terrestrial 15-60X variable power telescope is #5VTE, REG. NO. 6560.
- * The 4380 is a MONOLUX brand scope, not a Tasco. However, it looks very similar to the 7TE & 7TE-5 and undoubtedly has many components in common with the Tasco telescopes (same makers in Japan).
- * ROYAL OPTICAL CO. sold a 3" equatorial refractor that is identical to the #10TE.
- * OPTICA b/c of Oakland, California, a major supplier of telescopes and optical accessories to the amateur astronomer for many decades (especially during the 1960's) imported and sold essentially #20TE. Their stock number for the large refractor is #20098 and it was priced at \$1200.00 in OPTICA's 1968 catalogue.
- * *Sky and Telescope* magazine advertised #7TE-5 as #7TE.

Site Committee Invites Members For "Research" Star Party

The Observing Site Committee has scheduled a trip to Highgate Farm to "test" the observing conditions at this site near Molalla on Saturday, May 15. This site is under consideration as a Nearby site, and early reports are that it has good potential. Committee members welcome other club observers to check it out with them and offer their impressions and feedback.

More information will be posted on the RCA Listserv, or you can check out the Site Committee webpage at: <http://nemoworld.com/RCA/sitehome.htm>; or you can call David Nemo at 503-224-6366.

Rose City Astronomers 'Downtowner's' Lunch

Next Lunch is Friday May 7 at noon. Join us on the first Friday of each month for lunch at the Great China Seafood restaurant (Holidays and such may push us to the second Friday of some months, check the calendar at <http://www.rca-oms.org>).

Cost is \$6.50 for all-you-can-eat Chinese Buffet Lunch.

Great China Seafood restaurant

334 N.W. Davis, Upstairs on the 2nd floor

Great conversation and buffet lunch.

For more information contact: Margaret McCrea at mmcra@nwl.com



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





BOARD MEETING

MINUTES

APRIL 5, 2004

OMSI Classroom 1

Ken Cone

Present:

Peter Abrahams, Matt Brewster, Ken Cone, Larry Deal, Carol Huston, Doug Huston, Jan Keiski, Margaret Campbell-McCrea, Bob McGown, Dareth Murray, Ginny Pitts, Sameer Ruiwale, Deborah Smith-Hirshmann, Matt Vartanian

Treasurer – Ginny: \$17,047 in our accounts. Number of gazettes sent out now is 210 down from 450, a good savings and on budget target. Board members need to be prepared to discuss and resolve their FY 2004 - 2005 budget issues at the May board meeting. Final budget to be voted on at June board meeting. Ginny will send out budget information to board members prior to the May board meeting.

Programming – Matt: April OES students will present science fair information from science fair on 4/2/04. May is Peter Ward, UW Astronomy professor. Jim Todd is planning a planetarium presentation in the future, subject is Mars.

Membership – Doug: 10 new members for a total of 375 member families. 167 attendance last general meeting.

Star Parties – Matt V: 35 Friday night 40 Saturday night, scheduled for Kah Nee Ta. May 21 is Camp Hancock, see RCA gazette for details.

Community Affairs – Padraic: nominal

Sales – Sameer: \$112 RCA store sales. Thanks Ginny for running the store at the March meeting.

New Members – Carol: Carol & Doug met with about 16 new members last Friday. If you are a new member and would like help learning about telescopes and astronomy, contact Carol.

Dark Sky Association – Bob: Will meet with PGE lighting engineers to advise them on proper lighting techniques for roadways and parking lots. Some parking lot installations have lights that shine horizontally and in drivers' eyes, contributing to light pollution.

AL – Dale: nominal

SIGs – Matt B: nominal

Magazines : Larry reported 21 subscriptions for \$654.21. The board would like to thank Larry Godsey for his work over the past year with magazine subscriptions. The president appointed Margaret Campbell-McCrea as the new magazine subscription coordinator.

Editor – Larry D: nominal

Library – Jan: nominal

YRCA – Jenny: nominal

Webmaster – Dareth: nominal

OMSI – Peter: nominal

Telescope Library – Jeff: There is a problem with storage of all the scopes in the library. Jeff will review the telescope lending policy with inputs from the board. Telescope lending policy will consider length of loan, distance from Portland, compensation for damage to the telescope, and insurance.

Copying – Deborah: nominal

Phone line: - Dareth will run the phone line for April to May.

Observing Site committee: David Nemo reported on the site survey. About 8 folks have been attending site committee meetings. Three different types of observing sites are being considered, Close-in, Nearby, Remote. Several sites have been looked at by the site committee. David submitted a site survey to the board for approval. Board approved, the survey will be posted for RCA members via the RCA web site. David will review the surveys then come back to the board with results and recommend next steps.

SPECIAL INTEREST GROUPS

ASTROPHYSICS / COSMOLOGY

Date/Time: Thursday, May 20, 7 PM.

Speaker/Topic: Bernie Taylor, "Biological Time" - his latest book

Place: Linus Pauling Complex, 3945 S.E. Hawthorne St., Portland.

Contact: [Bob McGowan](mailto:Bob.McGowan@comcast.net) (503-244-0078)

or [Doug Huston](mailto:Doug.Huston@comcast.net) (503-629-8809) for more information.

TELESCOPE MAKING WORKSHOP

Date/Time: Saturday, May 8, 10 AM - 3 PM.

Place: Technical Marine Service, Inc. 6040 N. Cutter Circle on 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.

Profiles In Membership

Contributed by Deborah Smith-Hirshmann



Name: Tom Guin (left photo)
How Long in RCA: One Year
Number of Telescopes owned: Two
Telescope most used: 10" Dob F5
Observing site most used: Front and back porch
Next observing project/challenge: Whatever he can see; has bagged 37 Messier objects and some double stars

Name: Lee Tint (right photo)

How Long in RCA: Two Months
Number of Telescopes owned: One

Telescope most used: Mead ETX 60 AT, a gift from sister

Observing site most used: Looking for a spot, lives in apartment

Next observing project/challenge: Finding a safe observing site close to home, testing new eyepieces just purchased; improving tripod.



Name: Tammy Ross (left photo)

How Long in RCA: About three years

Number of Telescopes owned: One

Telescope most used: Mead LX 90

Observing site most used: Larch Mountain

Next observing project/challenge: Completing Messier

Don't wait - we still have lots of room left for the CAMP HANCOCK DARK SKY STAR PARTY WEEKEND

May 21st - May 23rd, 2004

Registration Deadline Monday, May 17th - Unless we reach maximum capacity earlier.

No Refunds after May 17th

Mail in your registration today!

Information is available on the web and in last month's Gazette. The RCA web site also has an order form you can fill out on-screen, pictures, downloadable Camp Hancock information, Clarno Fossil bed information, driving maps and instructions.

We have negotiated with the camp management so that the lower telescope field (DBO Valley) is open to setup telescopes after 2pm on Friday, but we are not to enter the camp area itself before 3pm on Friday. This gives the camp crew time to get things setup for us and give them a short break after the kids leave before we inundate them again. So, please do not enter the camp area before 3pm.

Observing Site Committee

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.

Next Meeting: Tuesday, May 11, 2004, 7:30 PM - 9:00 PM

Please Check <http://nemoworld.com/RCA/sitehome.htm> To Confirm and for more information.

or Contact: [David Nemo](mailto:david6366@msn.com) <david6366@msn.com>

Harland Financial Solutions

400 SW 6th Avenue, Portland

Conference room on entry level. Sign-in at Guard Station

What object would you point a brand new scope at for its first light? There are certainly plenty of worthy objects in the May night sky, but right now I think I'll choose **Venus**.

As May begins, Venus is starting to lose altitude as it moves toward inferior conjunction with the Sun, which is on June 8th this year and also happens to result in a long anticipated transit. Last observed in 1882, we won't be able to see Venus transit the Sun from the Pacific Northwest but we will be able to watch Venus grow larger and its crescent shape tighten as it draws closer to the Sun this month.

For example, On May 1st, Venus is 37 arc seconds in diameter and showing a noticeable but fairly chubby crescent phase. It's shining at magnitude -4.5. At this point, Venus is about as bright as it can get, showing us its maximum illuminated area. That may seem odd at first, since it is at an obvious crescent stage, but it's the total illuminated surface area that counts for brightness, not the phase.

By May 18th, the diameter is up to 47.5 arc seconds with a much slimmer crescent – much like our Moon a couple days past new. Not surprisingly, the magnitude has dropped, but not by much: -4.4.

By the end of May the crescent is impossibly thin but also increasingly difficult to see. Venus is much closer to the Sun, only 8 days from inferior conjunction and transit, so start looking for it right after sunset. Binoculars will help, and make sure the Sun has really set or is behind a building before pulling out the binos.

If you have particularly keen eyesight you might want to try to see Venus as a crescent without optical aid at this point. Some people can, and good luck for those who try. You might want to try this in the middle of the day with Venus near the meridian.

If you watch Venus all month you'll see it pull closer to the Sun – at the first of the month it sets about three and half hours after the Sun, at the end of May it sets an hour after. Imagine the arc of its orbit drawing it closer to Earth as well as the fabulous geometry that will carry Venus across the face of the Sun on June 8, and the rarity of this particular dance. Our next chance at seeing this is only 8 years in the future, but after that there's another 122 year wait. To me this is one of the best parts of observing, using facts to inform and illuminate the imagination.

In June, we can watch these events in reverse: Venus will emerge in the morning sky, and will show the same phases as in May. It will also pull away from the Sun at a much more shallow angle relative to the horizon so you'll have to be a true early bird to see all this, especially since June provides us with the earliest sunrises of the year. All the more reason to catch the show in May.

So for a first light object this May, Venus has a lot going for it. Conveniently placed in the evening sky, very bright and easy to find, Venus provides a treat for both the eyes and imagination. It also bridges a 122 year gap with the astronomers of 1882 who eagerly awaited their transit.

Last but not least, it also serves as a nice bright target for aligning the Telrad on my new scope. Perfect!

Desert Sunset Star Party - May 13-16, 2004

The 2004 Desert Sunset Star Party will be held at the Caballo Loco Ranch, about 11.5 miles south of Three Points, AZ, on Rt. 286, and then east for 8 miles. This RV ranch is in a secluded area of Arizona with dark skies. The Sierrita Mountains block the light dome of Tucson. The domes of Kitt Peak are in clear view to the west.

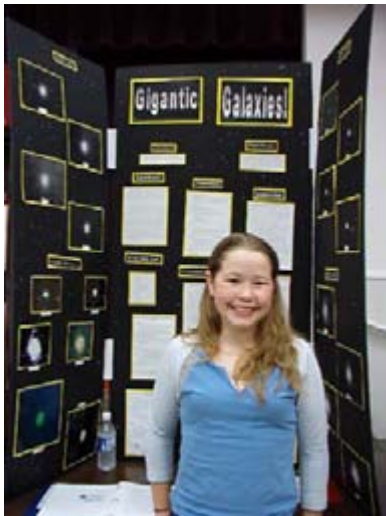
The DSSP begins on Thursday night and runs through Saturday night. We will have a speaker on both Friday and Saturday evenings along with door prize giveaways. Registration information is posted on the DSSP website:

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

Young Scientists Special Presentation at April '04 RCA General Meeting

By Deborah Smith-Hirshmann

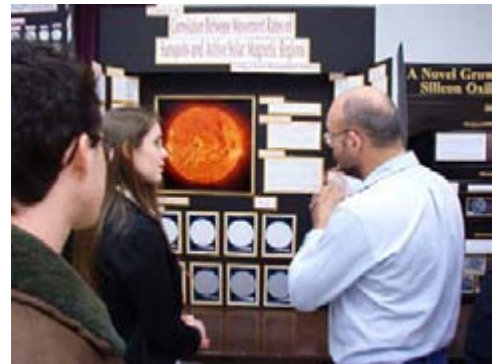
The RCA membership was awed by the presentation of the "Young Scientists" at the April 2004 General Meeting at Omsi. Presenters Elyse Hope, Yvonne Yamanaka, Jenny Wolochow, Krissi Kuni, Emily Petroff, Megan Van Ness, Sarah Baker, Sergio FMX Zenisek, Neil Lakin, Brandon Lei, Michael Coulter, Allison Rhines, and Nick Thiessen wowed the adult group with a very impressive study of various scientific subjects, including, but not limited to, astronomy-related matters. Participants were largely students from Oregon Episcopal Schools, with one student travelling from South Salem (High School) to present to our club. Each student gave a brief articulate and professional synopsis to the entire membership and then was available on an individual basis to discuss area of study and presentation boards further. Nice to see our future is in such good hands with the contributions of these young adults!



Emily Petroff



Megan Van Ness



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-oms.org/library.htm>

Jupiter's Great Moon Dance; The triple shadow transit of March 28th, 2004

By Chuck Dethloff

Late in the afternoon I rolled out Judy's 16" f/4 Dob in front of our house and had both the rear and the front surface fans cooling the primary mirror by 5 o'clock. Judy and I were joined by Bill Jamison with his 16" f/5 Dob. Later in the evening we would be joined by Evaleigh "E" Zehr (accompanied by her friend Jenni Loerts) who brought along her 85mm f/7 Tele Vue refractor. All three scopes would provide great views of Saturn, the Moon, and of course Jupiter.

I started following the Jovian moon dance at 8:45 pm. Skies were clear with only a light amount of fog. Nothing that ever would pose any serious threat of becoming a heavy dense fog. But it did provide some interesting small greenish halos around the setting first quarter moon as the night went on. The four moons formed a hockey stick asterism framing Jupiter. Callisto and Europa (the tip of the hockey stick) off to the west, Ganymede and Io off to the east. Callisto's shadow had not yet appeared on the following limb of Jupiter, though in only a few minutes it would become visible notching into the North Polar Region (NPR).

The seeing was a solid Antoniadi 2. During brief stretches I could see Io and Europa as clean disks indicating that the seeing was near one arc-second. Further helpful regarding seeing was that this event was well placed for the western United States and Jupiter would be near its highest point in the sky when the shadows of Callisto, Io, and Ganymede would all be visible at the same time.

Quickly the moons of Jupiter started shifting position with Io following Ganymede moving towards Jupiter. Over the course of the evening Io would catch and move past Ganymede. Callisto was moving slowly away from Jupiter and Europa was approaching Jupiter.

By 9:50 pm Ganymede was completely on the limb of Jupiter glowing pearl white. As it moved further on it slowly faded and became invisible for a while, but than reappeared a bit later as a dusky spot against the North Tropical Zone (NTrZ). Forty minutes later at 10:30 pm Europa was poised to slip behind the preceding limb.

The North Equatorial Belt (NEB) showed lots of interesting detail. The northern edge of it was scalloped across the face of Jupiter. The following part of it was thicker than the preceding part. The southern edge of it had two garlands and yet another dark concentration following the garlands.

I initially referred to these as festoons while observing them. After reviewing Jupiter's features in Fred Price's "The Planet Observer's Handbook", I think they actually were garlands. The handbook defines (and illustrates) garlands as wispy structures that commence as bumps along the edge of belts. They can either curve back again towards the same belt or flair up and then straighten out. These features differ from festoons which are dark thin bands extending from projections that connect two belts.

The region from the North Temperate Belt (NTeB) northward was a fairly uniform dusky olive green. A vague trace of the NTeB weakly bordered the southern part of it and the enclosed zones did not stand out at all. The South Temperate Belt (STeB) and the South-South Temperate Belt (SSTeB) were visible. The South Polar Region (SPR) was not quite as dark as the NPR and lacked the olive greenish color.

Sketch below using a 6mm Radian at 310 X.

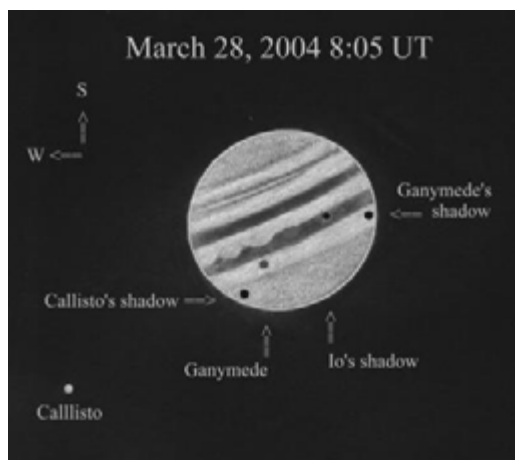


By midnight the main event was under way as both Io's and Ganymede's shadow were now visible along with Callisto's shadow. Also easily visible was Ganymede itself though it was not quite as contrasty as the shadow spots. I had been trying to spot Io ever since it faded from view after it moved onto the following limb of Jupiter.

(Continued on page 11)

Jupiter's Great Moon Dance (Continued from page 10)

A few times both E and I felt like we could detect something slightly lighter in color within the southern part of the NEB where Io was supposed to be. However, we could not conclusively say it was Io, it could have rather just been a lighter area in the belt teasing us. Sketch below using a 2X Barlow and a 14mm Radian at 230 X.

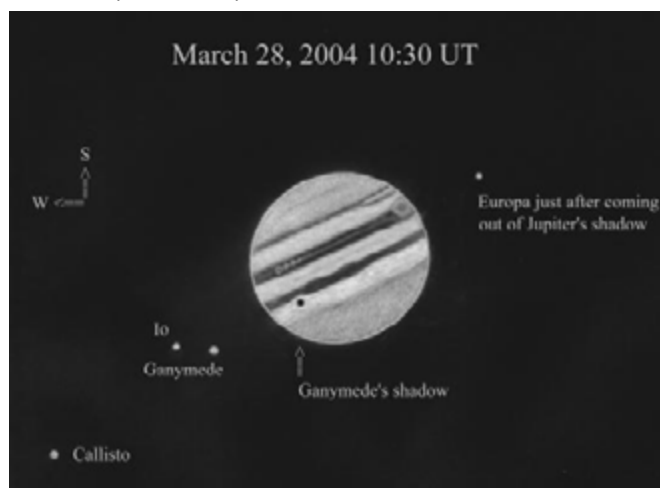


All too soon Callisto's shadow would slowly edge off the preceding limb.

Shortly after 1am the Ganymede transit ended. When the Io transit ended nine minutes later it created a striking view of Io and Ganymede both very close together just off the Jovian limb. Io would soon pass Ganymede as they both moved away from Jupiter.

The moon dance was not completely over and the seeing was still good. So I stayed up and followed the action till finally Europa started to emerge from out of the shadow of Jupiter a little after 2:20 am. That was quite interesting in itself as the shadow from Jupiter covered Europa until it was a distance of almost 1/3 the equatorial diameter of Jupiter off to the east. As it gradually escaped from Jupiter's shadow it first glowed so weakly that it was barely visible. Over the next couple minutes it steadily gained brightness until it was back to normal.

The shadow from Ganymede was still visible in the NTrZ just north of a small shallow indentation along the northern edge of the NEB. The SEB had come alive with detail compared to five hours earlier. There was a string of small white connected ovals scattered across the center of the preceding half of the SEB, the west most one had a small black dot in the center of it. Both the north and south bands of the SEB were more defined and the Great Red Spot (GRS) was just visible hugging the following limb. The GRS hollow visible along with the dusky interior eye. Sketch below at 230 X.



The moon had set and skies were fairly dark overhead. Still had traces of fog along the ridge to my west. Skies had stayed clear all night except for about 30 minutes just after the main event ended. Got real lucky there as for about ten minutes Jupiter was hardly visible through a band of low to mid level clouds that passed through. The temperature which had started out in the upper 40's had dropped to 32 degrees and a light frost covered the telescope's shroud. Tired but thrilled that things worked out as well as they did, I called it a night. And a most enjoyable night at that!

Oregon Museum of Science and Industry
 Rose City Astronomers
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 Portland, Oregon 97214-3354

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May 2004

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30	31					

May 2004

May 3	Mon.	RCA Board Meeting	OMSI Classroom	7pm
May 7	Fri.	Downtowner's Lunch	Great China Seafood	Noon
May 8	Sat	Telescope Making Workshop	Technical Marine	10am-3pm
May 17	Mon.	RCA General Meeting	OMSI Auditorium	7:30pm
May 20	Thu.	Astrophysics/Cosmology SIG	Linus Pauling House	7pm
May 21-23	Fri-Sun	RCA Dark Sky Star Party	Camp Hancock	After 3pm
May 22	Sat	OMSI Comet Watch	Rooster Rock	Dusk

June 2004

Jun 4	Fri	Downtowner's Lunch	G. China Seafood	Noon
Jun 5	Sat	Telescope Making Workshop	Technical Marine	10am-3pm
Jun 7	Mon	RCA Board Meeting	OMSI Classroom	7pm
Jun 12	Sat	OMSI Star Party	OMSI Parking Lot	Dusk
Jun 19	Sat	RCA Star Party	Larch Mountain	Dusk
Jun 21	Mon	RCA General Meeting	OMSI Planetarium	7:30pm
Jun 24	Thu	Astrophysics/Cosmology SIG	Linus Pauling House	7pm

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-oms.org>).

RCA CLUB INFORMATION

Message Line: (503) 255-2016

Web Site: <http://www.rca-oms.org>

The

Rosette Gazette

Volume 16, Issue 6

Newsletter of the Rose City Astronomers

June, 2004



RCA GENERAL MEETING JUNE 21, 2004

"Manual Star Hopping Techniques, or What to Do When the Batteries Fail" By Howard Knytych

In This Issue:

- 1... General Meeting
- 2... Board Directory
 - President's Message
 - Magazines
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 - Awards
- 4... SightSaver
- 5... RCA Downtowners
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 - Site Committee
- 6... Board Meeting Minutes
 - SIG's
 - RCA Library
- 7... Mars on Earth
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- 10. Calendar

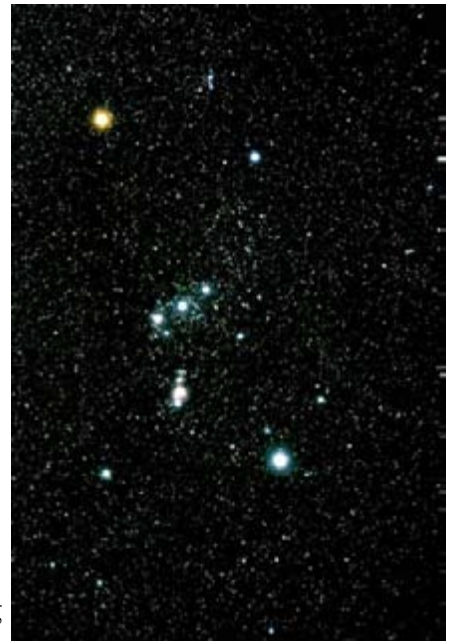
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Hubble Deep Field above courtesy R. Williams (STScI), the Hubble Deep Field Team and NASA

Moon photos below courtesy David Haworth

RCA member Howard Knytych's presentation, was first offered at the Oregon Star Party last year. It's an entirely pragmatic set of hands-on, practical techniques and tools that can be used in actual field conditions for locating target objects manually. Although biased toward manual, as opposed to computerized search techniques, the program nonetheless offers something for all who seek the night sky.

The talk discusses essential, basic equipment or accessories beyond the telescope: charts, optical and telrad finders, binoculars, and most importantly, their use in locating target objects. We'll also delve into practical ideas such as using various "sanity checks" to keep from getting lost or confused at the eyepiece, using averted vision, dealing with low contrast conditions, and verifying finds. The intended audience includes not only those new to amateur astronomy, but perhaps a review for more experienced observers as well, as we ramp up for the summer observing season.



*Orion Constellation
Hubble Space Telescope
Photo by Akira Fujii
Courtesy STScI and NASA*

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

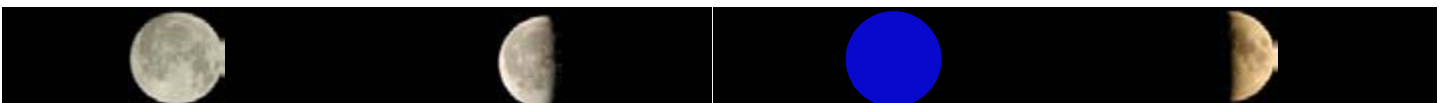
Deadline for submission of articles, ads, and photos for the Gazette is the 20th of each month.

Full Moon
June 2, 9:19 PM. PDT

Last Quarter Moon
June 9, 1:02 PM. PDT

New Moon
June 17, 1:27 PM PDT

First Quarter Moon
June 25, 12:08 PM. PDT



Club Officers			
President	Peter Abrahams	(503) 699-1056	telscope@europa.com
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SIG Director	Matt Brewster	(503) 740-2329	M_brester@juno.com
Youth Programs Director	Jenny Forrester	(503) 504-8070	jenny@theforrest.org



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-oms.org/siteindex.htm>
Then click on any of the magazine links. Margaret McCrea, 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.



President's
Message
By
Peter Abrahams
June 2004

Sometimes when the Pacific Northwest winter 'observing drought' ends, we get lucky. This spring has had more than a few good nights for stargazing, and a very nice comet, and an excellent evening star, along with all the

usual stuff up there. We've had some very good observing reports on the RCA email list. As I write this, it is cloudy, but I know there's a hole in those clouds somewhere.

There are an increasing number of star parties in the Pacific Northwest & away from the RCA: OSP (of course); Table Mountain, Prineville Reservoir, Mt. Bachelor; and many smaller events as well. We hope these are all successful, and if RCA members go to these events, photos or a report for the Gazette would be very productive.

These are very different events than an OMSI star party, with 1000 curious kids & adults in lines waiting to look through your telescope -- but that kind of event is also a lot of fun & provides a different perspective to your views of the sky.

Have a great summer,

Peter Abrahams

Oregon Star Party 2004 Volunteer Opportunity!

For a great way to meet people and contribute to making the Oregon Star Party the great star party it is, volunteer for one or more of the many fun volunteer opportunities available:

- Site Setup - putting out signs
- Parking Assistance - advice and direction to attendees
- Registration Tent - greet attendees &/or process incoming attendees (packets/pre-purchased OSP clothing)
Shower Truck - collect tickets outside shower truck
- Activities Tent - assist activities coordinator
- Youth Activities - assist youth activities coordinator
- Site Cleanup - picking up signs, site cleanup

Each two hour volunteer shift comes with a special door prize ticket that's just for volunteers. A drawing will be held along with the regular door prize drawing on Saturday. A bottle of water, packaged trail mix, and cookies come too!!! Mike's colorful umbrellas will again be provided for sun shades for the parking & shower truck volunteers.

Mike and/or I will let you know your volunteer times when you arrive and check in at the OSP registration tent. Or if you have a preference of kind or time of volunteer duty, please let me know.

Jan Keiski

OBSERVING SITE SURVEY RESULTS

Over 100 RCA members (almost a third of the Club) completed a survey last month for the Observing Site Committee to help the Committee and the Board get a sense of member interest and support for the effort to secure Club-controlled observing sites.

Members overwhelmingly support (90% in favor) the Committee's long-term objective to secure three different types of sites: close-in, nearby, & remote for Club and member use. If we could do only one, 65% think it should be a nearby site (i.e., within 1 hour of Portland).

Club members also appear ready to help raise money to pay for a site as 95% said they would support an increase in dues and 57% said they would be willing to make a cash contribution towards purchasing and/or maintaining observing sites.

The survey also revealed the diversity of the club. Noteworthy is that nearly half the membership has been a member less than 4 years and around a third of the members are relatively new to astronomy and interested in learning a lot more.

Draw your own conclusions by checking out the complete survey results online at <http://nemoworld.com/RCA/opinionspage.htm>

The Observing Site Committee thanks everyone who completed the survey.



Awards

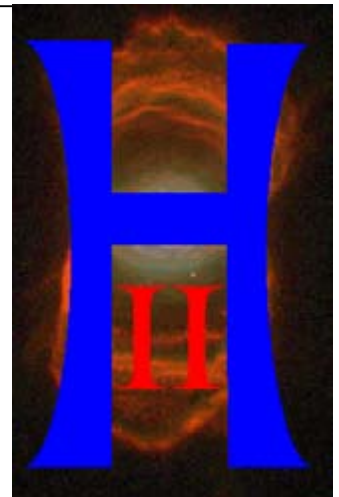
Deep Sky Binocular Award
#171
John Siple

The Hershel II Award
(Manual) #35
Dave Sandage*

*The fourth Hershel II award earned
by an RCA member!

For more info visit:

<http://www.astroleague.org/al/obsclubs/obsclub.html>



SightSaver

Tim Crawford, Arch Cape Observatory

Every now and then some one does manage to invent a better “mousetrap.”

Long ago I grew tired of using thin “red” films over my computer screens, both in the Observatory and in the field. Using scotch tape has proved to be messy and not very satisfactory. Velcro is impractical on the thin film as it raises it and allows light seepage. Some of them will tend to stick to the screen and if you tilt them just right they will sometimes stay in place for a while... that is until a slight breeze comes up!

In addition, I have never really been satisfied with the results of using the red screen option offered by many Astronomy programs.

Several months ago I discovered a product called the SightSaver at

<http://www.Idealastronomy.com/>

I use a Mac Power book in the Observatory for scope control and my charting programs. For control of my SBIG CCD (ST-9E) I use a tower PC (I do a fair amount of Variable Star observing).

When I checked their website it was obvious that the product is designed mainly for laptops; however, of their three stock sizes one of them appeared to be just right for my HP screen, which is relatively thin so I ordered one.

None of the stock sizes appeared to be suitable for my Mac power book so I emailed Bill with the screen dimensions and he said he could make one for me so I ordered it also.

The SightSaver's arrived with a lip to hook over the back of the screen area. As the lip was too thin to fit over my HP Screen (which is not a laptop) I simply cut off the back of the lip and used a two pieces of Velcro on top of the screen and the top edge of the SightSaver to attach it. This worked out quite well.

The custom sized unit for the Mac was a bit low on my screen so I simply cut a few pieces of sponge rubber tape (used for door and window insulation) and inserted them underneath the lip area and I then had a perfect fit.



The SightSaver's are made of what appears to be 1/8" acrylic sheets with sponge rubber tape around the inside of the edges to fit snug to the screen. The attachment lip at the top is made of a relatively thin plastic that you can cut with heavy-duty scissors, if necessary.

I love this product! Breezes seem to have no effect and there is no leakage of screen light around the edges. The images through the SightSaver seem to be just about right to me as far as being able to see detail but not so bright as to effect dark-adapted vision very much.

Rose City Astronomers 'Downtowner's' Lunch

Next Lunch is Friday June 4 (as I am writing this the evening of June 3 the next meeting is actually July 9) at noon. Join us on the first Friday of each month for lunch at the Great China Seafood restaurant (Holidays and such may push us to the second Friday of some months, check the calendar at <http://www.rca-omsi.org>).

Cost is \$6.50 for all-you-can-eat Chinese Buffet Lunch.

Great China Seafood restaurant

334 N.W. Davis, Upstairs on the 2nd floor

Great conversation and buffet lunch.

For more information contact: Margaret McCrea at mmcrea@nwlinc.com



Observing Site Committee

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.

Next Meeting: Monday, June 21, 2004—6:45 - 7:15 PM

OMSI Auditorium (prior to regular Club meeting)

Please Check <http://nemoworld.com/RCA/sitehome.htm> To Confirm and for more information.
or Contact: [David Nemo](mailto:david6366@msn.com) <david6366@msn.com>

YOUNG ROSE CITY ASTRONOMERS

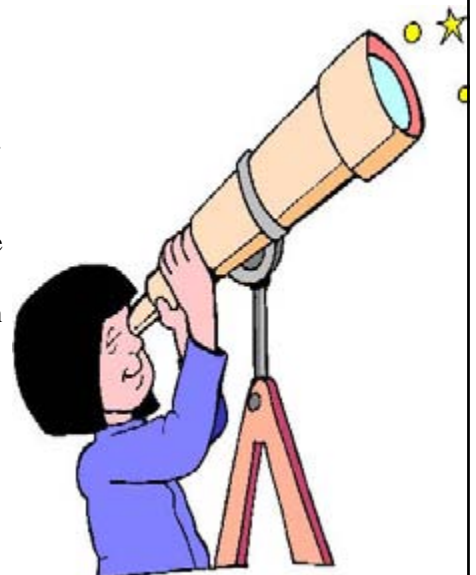
JRCA will start up again during the summer months during the regular RCA meetings for kids age 5 through 12. If you'd like to attend (or your parents would like you to attend), please call Jenny at (503)286-4585 or e-mail her at jenny@theforrest.org to RSVP. This will make it easier for me to prepare for the JRCA meeting! If you can't RSVP or you forget, don't worry about it - come and enjoy JRCA anyway!

We will be studying the Laws of Physics through toys, interactive games, coloring sheets and other paper and pencil sheet. There will also be lots of information available for you to study astronomy on your own or with a friend. Standard classroom behavior is expected even though it takes place in the OMSI lunchroom.

We will also be discussing a possible trip to visit a hospital to bring some astronomy to children who are bed-ridden. This trip will be at least a two-step process - an orientation meeting and then the field trip. Parent involvement will be required for this, so please check with your parents first.

JRCA is also looking for volunteer teachers! If you're 13 or older and interested in helping kids learn about Astronomy, you'll have a wonderful experience working with kids ages 5 through 12 at the JRCA meetings. If you're interested, please call or e-mail Jenny.

JRCA thanks Peter Abrahams for his incredible support of JRCA (and Jenny, in particular) and for his continued generosity to the addition of materials for astronomy education! Peter, you rock!





BOARD MEETING

MINUTES

MAY 3, 2004
OMSI Classroom 1
Ken Cone

Present:

Peter Abrahams, Matt Brewster, Ken Cone, Dale Fenske, Larry Deal, Jeff Henning, Carol Huston, Doug Huston, Jan Keiski, Bob McGown, Dareth Murray, Ginny Pitts, Sameer Ruiwale, Debra Smith-Hirshmann, Matt Vartanian

Treasurer – Ginny: \$13,247.39 in our accounts. Working on moving financial information to Quick Books.

Programming – Matt: Peter Ward scheduled for June. Positive feedback from science student presentations last meeting, would like to consider for next year.

Membership – Doug: 383 member families. 167 attendance last meeting. Membership renewal begins now, last day to renew your membership is July 1st.

New Members – Carol: nominal

Star Parties – Matt V: Kah-Nee-Ta went well, service was excellent. 33 rooms booked Friday night, 38 Saturday night, close to 60 people attended. RCA Dark Sky Star Party is at Camp Hancock May 21-23, please sign up soon. OMSI Star Party - Comet watch Saturday May 22 at Rooster Rock. June RCA star party will be at Larch Mt.

Community Affairs – Padraic: nominal

Sales – Sameer: \$252 for April

Dark Sky Association – Bob: Bob continuing to work with PGE lighting engineers on selection and installation of proper street lighting. Astro League has dark sky week coming up soon.

AL – Dale: AL participating in AAS meeting in Denver June 1.

SIGs – Matt B: Cosmology and Telescope Workshop are active SIGs.

Magazines – Margaret: nominal

Editor – Larry D: nominal

Library – Jan: nominal

YRCA – Jenny: nominal

Webmaster – Dareth: The board agreed to adopt a set of netiquette rules for RCA e-list subscribers.

OMSI – Peter: OMSI wants to continue contractual relationship with RCA for another year. The board approved, without vote, continuing our agreement with OMSI.

Telescope Library – Jeff: nominal

Copying – Debra: nominal

Phone line: - Deborah will answer the phone line for May.

Budget discussion occupied the majority of this meeting. The vote on the 2004-2005 budget will occur at the June meeting.

The July board meeting will be on 12 July.

SPECIAL INTEREST GROUPS

ASTROPHYSICS / COSMOLOGY

Date/Time: Thursday, June 24, 7 PM.

Speaker/Topic: Bob McGown, Transit of Venus

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.

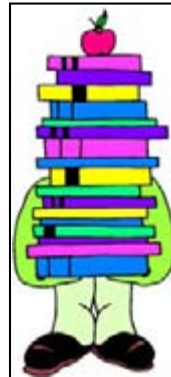
TELESCOPE MAKING WORKSHOP

Date/Time: (Contact Jim for July date), 10 AM - 3 PM.

Place: Technical Marine Service, Inc. 6040 N. Cutter Circle on 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 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>

Discovering Mars on Earth!

An analogue in the Utah desert

By Bob McGown

It was the opportunity of a lifetime! How could I turn down a chance to visit Mars? My good friend Gus Frederick invited me to join him for a weekend as he was in command of a team at the Mars Desert Research Station (MDRS), near Hanksville, Utah (elevation ~4,500). My usual sidekick couldn't make it, so I asked Sean League, owner of Sean's Astronomy Shop, if he wanted some adventure. He enthusiastically agreed and even volunteered to drive his van.

Surviving 16+hour drive from Portland we arrived at MDRS where Commander Gus introduced us to his crew, Team 28. MDRS is part of an ambitious plan of the International Mars Society, which has initiated the Mars Analog Research Station (MARS) project.



Musk Observatory

This is a global program of Mars exploration operations research which will eventually include four Mars base-like habitats located in deserts in the Canadian Arctic, the American southwest, the Australian outback, and Iceland. The MDRS in Utah is well underway. In this Mars-like environment, volunteers conduct a program of extensive long-duration geology and biology field exploration operations done in the same style and under many of the same constraints as they would on the Red Planet. The main component of the MDRS is the Habitat, known affectionately as the "hab". There is also a small observatory (the Musk Observatory) and greenhouse near the hab.

Gus had a personal project for this mission, the MDRS "Salad Machine" which was designed to be a semi-automated hydroponics system to test the feasibility of growing fresh vegetables for future crews. At last accounts it is still doing well, with some tweaking. Another project for Gus was to introduce duckweed and water fern into the gray water tanks of the greenhouse. It was an ingenious way to try to re-process the gray water so it could be usable for other purposes.

At about 3 p.m. on the April 16th, Sean and I set up the solar H-alpha Coronado telescope and the C-5 telescope with a white light filter. We noticed large solar flares and sun spot activity that afternoon. The wind was gusting up to 45 km/hr and we were skeptical about observing that evening.

However weather finally cleared up and we set up our Alt/Azimuth 10" Newtonian telescope on the south side of the hab so we could observe with the crew.

At about 10:30 it was getting very dark and there were just a few clouds hanging on. The sky was about 75% clear with very little wind. It was a warm evening, above 60-65 degrees, and occasionally a slight breeze would wiggle the scope. We had two observing chairs and a selection of eyepieces from 13, 25, 32, 40, and 50mm. We tried some spectral filters and diffraction gratings on observing planets & stars. The lower atmosphere seemed to be turbulent, while the upper atmosphere was steady. The wind died down and the seeing conditions improved to about 3-arc seconds seeing. The darkness was excellent on a Bortle scale of 1-10. The rating on the Bortle scale was about a 3. The seeing ranged from a 5 low on the horizon to about a 7-8 on a 1-10 scale. The transparency ranged from 6 to about an 8.5.

We first toured the planets. Our first observation included Venus, which was about 18 degrees above the western horizon. Venus was in a crescent phase and quite interesting. The 6 members of Crew 28 came out to observe in shifts. Mars was low in the atmosphere and unsteady. Saturn was quite striking in a 90-power 13-mm eyepiece. The Cassini division would come and go. Jupiter was very distinctive as usual with clean banding, displaying four moons spread out on the Ecliptic. We were especially interested in Jupiter because of the new blue methane band, which just became visible this month in the Southern Temperate Belt region near where Shoemaker Levy-9 comet hit in 1994.



Sean sets up the solar scope

(Continued on page 8)

Discovering Mars on Earth! (Continued from page 7)

After our customary planetary tour, we observed a few deep sky northern objects and spent the next 3 hours observing the southern sky. It was a rarity to view the southern sky and observe some of the southern Caldwell Objects, galaxies and globular clusters that included C-66 (globular cluster in Hydra), C-60 & 61 (irregular galaxy - "ring tailed galaxy" in Corvus), C-59 (the "ghost of Jupiter), C-53 (8.0 mag galaxy in Sextans), and C-48 (N2775 - 10.1 mag spiral galaxy). We compared the galaxies for differences in our two-night observation for glimpses of possible super nova. Sean and I also spent some time observing the Virgo Cluster, M-83 (the southern pinwheel) and Leo galaxies. The sky was very black. Over all, the observing was very good despite the occasional cloud. We were able to locate deep sky objects rapidly so the MDRS research team enjoyed a good star party after all.



Bob investigates a red anthill

The next day Sean and I went into Hanksville to send out mail from the MDRS team and to pick up a magnet for searching for small possible micrometeorites or magnetic nodules in the hills. On the way back we stopped at 6 anthills about 4.5 km south of the turnoff at the hematite-strewn field along the Lowell highway. We photographed cactus and hematite deposits - "Martian blue berries". The anthills had some micro-magnetic nodules less than 1mm in size. In some of the anthills we found a surface layer of magnetic nodules the size of sand grains and some fine grained iron filings. Naturally, we did not disturb the anthills or the ants. This terrain is typical of a sand grain meteoritical strewn field, an analogue of the Holbrook site in Arizona.

On Sunday, the 18th, Sean and I got a chance to actually experience an Extra Vehicular Activity (EVA). We suited up with the assistance at Space Tender Steve Featherstone of Team 28. The pressurized suit has an air filtering system, which prevented the blowing sand dust, which gusted to 45km/hour during our EVA. We headed southeast about 1.2 km to the center section of Lowell Highway and Sagan

Road seeking anthills to look for micro-magnetic nodules. We found an area prolific with nodules. It gave us an eerie feeling looking for specimens that had been collected by the ant colonies. Red ants are able to carry an iron nodule many times their body weight up inside the anthill and stack them in a mound up to 1/2 meter high.

That evening, the crew wrote reports and had dinner while Sean and I set up for the evening's observing. Our hopes for observing dwindled as an electrical storm came through, blowing dust with high winds as well. We placed the 10" Newtonian scope into the green house during the storm.

Waiting out the storm, Sean and I counted meteors in the leeward side of the Mars hab between 11-11:30 p.m. We observed 9 meteors in 18 minutes radiating out of Ursa Major or possibly Leo.

The meteors ranged from 6 magnitude to 1st magnitude. We immediately thought they might be coming from Lyra. The Lyra meteor shower is active starting 16 April with a zenith hourly rate of 18 to 90. Sean and I did not see the whole sky since we were observing in the leeward side of the hab. It seemed like the meteors were coming from Leo or Ursa Major instead of Lyra. It appeared as though we might be witnessing an outburst of the meteor shower three weeks after the end of the Delta Leonoid shower in April. I contacted Wes Stone, a member of the IMO international meteor organization, to discuss the possibility of a new minor meteor shower. Wes thought it might be the Tau Draconoids, a minor meteor shower during this time of the year.

When the sky cleared, Sean and I looked in the Uranometria (Northern Edition, page 106) and searched out the super nova in NGC 3786. Ursa Major was now visible, so we set up on the northerly lee side of the hab to avoid the blowing sand and wind gusts up to 40km/hr. The discomfort was worth it to possibly get the chance to observe a 14th magnitude super nova in a 12th magnitude galaxy. We found some averted vision galaxies in the area with our 10" Newtonian however we did not catch a glimpse of the super nova this time.

A few days earlier I had observed the super nova with colleagues Matt Vartanian and Dareth Murray at the Highgate Farm near Molalla, in a 16" scope. Sean and I could have observed the supernova manually with the C-14 at the MDRS if the wind gusts had not been so strong. It was not possible to use the C-14 at any time during our visit due to the high wind and dust.



Commander Gus leads an EVA

(Continued on page 9)

Discovering Mars on Earth! *(Continued from page 8)*

The great thing about the MDRS is that anyone who has an interest or talent can apply and be part of a science team for two weeks. What an experience! The scenery is breathtaking and the weather is like Mars - unpredictable! To learn more, visit: <http://www.marssociety.org/mdrs/index.asp>

I look forward to another adventure of "Mars on Earth" sometime in the future.

Bob McGown



An EVA and a "Rover" ride!

Member Profiles **By Debra Smith-Hirshmann**



Date: April 2004 General Meeting
Name: John & Claire Glenn
How Long in RCA: Three Years
Number of Telescopes owned: Two
Telescope most used: Celestron 8 SCT
Observing site most used: Back porch
Next observing project/challenge: Gearing up for Messier; learn more about telescope; interested in astrophotography

Date: May 17, 2004 General Meeting
Name: Richard & Rea LaBar
How Long in RCA: Three years and Fifteen years respectively
Number of Telescopes owned: Two
Telescope most used: 4" Celestron Reflector and Bushnell refractor
Observing site most used: Front yard
Next observing project/challenge: Planets, meteors, and comets, weather permitting



Date: May 17, 2004 General Meeting
Name: Howard Knytych
How Long in RCA: Six years
Number of Telescopes owned: Four
Telescope most used: 18" Dob
Observing site most used: Backyard
Next observing project/challenge: Working on Herschel II List
Has 40% done

Date: April 2004 General meeting
Name: John Harris
How Long in RCA: Joined after OSP September 2003
Number of Telescopes owned: Three
Telescope most used: 9.25 Celestron
Observing site most used: Backyard
Next observing project/challenge: Nail all the Messiers



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

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June 2004

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 2004

Jun 4	Fri	Downtown's Lunch	G. China Seafood	Noon
Jun 5	Sat	Telescope Making Workshop	Technical Marine	10am-3pm
Jun 7	Mon	RCA Board Meeting	OMSI Classroom	7pm
Jun 12	Sat	OMSI Star Party	OMSI Parking Lot	Dusk
Jun 19	Sat	RCA Star Party	Larch Mountain	Dusk
Jun 21	Mon	RCA General Meeting	OMSI Auditorium	7:30pm
Jun 24	Thu	Astrophysics/Cosmology SIG	Linus Pauling House	7pm

July 2004

Jul 9	Fri	Downtown's Lunch	G. China Seafood	Noon
Jul 12	Mon	RCA Board Meeting	OMSI Classroom	7pm
Jul 17	Sat	RCA Star Party	Larch Mountain	Dusk
Jul 19	Mon	RCA General Meeting	OMSI Auditorium	7:30pm
Jul 22	Thu	Astrophysics/Cosmology SIG	Linus Pauling House	7pm
Jul 24	Sat	OMSI Star Party	OMSI Parking Lot	Dusk

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-oms.org>).

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

The

Rosette Gazette

Volume 16, Issue 7

Newsletter of the Rose City Astronomers

July, 2004



GENERAL MEETING JULY 19

Tune Your Telescope: How Your Dob Can Live Up to its Potential

Presented By Howard Banich

In This Issue:

- 1... General Meeting
- 2... Board Directory
 - President's Message
 - Magazines
- 3... OSP Volunteer Call
 - RCA Site Fund Rasing
 - May Meeting Photos
- 4... Hickson Hunting
- 5... RCA Downtowners
 - Young RCA
 - Site Committee
- 6... Board Meeting Minutes
 - SIG's
 - RCA Library
- 7... Volunteers Needed
- 8... Venus in Europe
- 10. Membership Dues
 - OMSI Star Party!
- 11. Member Profiles
- 12. Calendar

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Hubble Deep Field above courtesy R. Williams (STScI), the Hubble Deep Field Team and NASA

Moon photos below courtesy David Haworth

RCA member Howard Banich will present a series of practical techniques anyone can use to significantly enhance the performance of their Dobsonian or Newtonian telescope. Commercially available Dobs are usually bare-bones telescopes that can, with a minimum of effort, be transformed into fine instruments capable of living up to their potential. Based on practical experience, and borrowing heavily from the work of the other telescope makers, these tips can be applied to any size Dob or otherwise mounted Newtonian.

For example, do the movements of your Dob lack the buttery smooth feel of other scopes you've looked through or heard about? Or maybe the images it produces seem washed out, never reach a pin-point focus, or are plagued with glare and ghosts. We'll talk about the causes and cures for these ills as well as touching on maintenance issues like cleaning optics and collimation. Fact and fiction will be separated on what works for baffling, bearing materials and cooling fans.

Tuning your Dob for improved performance will not only enhance your observing sessions but will also increase your knowledge of how your scope actually works. Whether you are brand new to the hobby or a seasoned vet, taking advantage of at least one of the tips will definitely increase your viewing pleasure. Which tip will that be? Find out July 19, 2004 in the OMSI Auditorium."



M-31 taken with an AP 130 F6 and SBIG ST10XE
Photography by Terry Johnson

Monday July 19
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.

Last Quarter Moon
July 9, 12:33 AM. PDT

New Moon
July 17, 4:24 AM PDT

First Quarter Moon
July 24, 8:08 PM. PDT

Full Moon
July 31, 11:05 AM. 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	Matt Vartanian	(503) 244-5023	matt@vartanian.net
VP Community Affairs	Padraic Ansbro	(503) 349-3864	whiteowl@ansbro.com
VP, Communications	Matt Brewster	(503) 740-2329	m_brewster@juno.com
Treasurer	Ginny Pitts	(360) 737-0569	vepitts@comcast.net
Secretary	Ken Cone	(503) 292-0920	bjnkenc@hevanet.com
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) 957-4499	darethlee@comcast.net
Alcor, Historian	Dale Fenske	(503) 256-1840	fenskedf@juno.com
Library Director	Jan Keiski	503-539-4566	jikeiski@juno.com
Telescope Director	Jeff Henning	503-656-3041	j42h@aol.com
Media Director	Padraic Ansbro	503-349-3864	whiteowl@ansbro.com
IDA Liaison	Bob McGown	(503) 244-0078	bobmcgown@comcast.net
OSP Liaison	Dareth Murray	(503) 957-4499	darethlee@comcast.net
Camp Hancock Liaison	Glenn Graham	(503) 579-1141	the_grahams@verizon.net
Subscription Director	Margaret McCrea	(503) 675-5217	mmcrea@nwnlink.com
SIG Director	Matt Brewster	(503) 740-2329	M_brester@juno.com
Youth Programs Director	Jenny Forrester	(503) 504-8070	jenny@theforrest.org



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-oms.org/siteindex.htm>
 Then click on any of the magazine links. Margaret McCrea, 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.



There have been some spectacular successes from the far-flung NASA space probes in recent months.

The Rover missions are returning some excellent images of Mar-

tian landscapes, rocks, dirt, etc. There's nothing but rocks & dirt, however, when plain old rock can be used to confirm the existence of water on Mars, that is pretty significant rock.

There are several orbiting cameras focused on Mars, and there are huge quantities of sharp, detailed images from these instruments.

The Cassini mission is getting close to Saturn, and some truly dramatic pictures of Phoebe, one of Saturn's small moons, were returned. This object has craters that are a good fraction of the size of the moon, and it is a lumpy & fractured moon.

And, since U.S. taxpayers paid for these instruments, their images are very available on the web. NASA has tremendous resources available to the public, images for people like me and also texts for those who want to take the time to study planetary science.

I hope everyone is having a great summer & can get out to observe, with RCA or on your own.

Oregon Star Party 2004 Volunteer Opportunity!

For a great way to meet people and contribute to making the Oregon Star Party the great star party it is, volunteer for one or more of the many fun volunteer opportunities available:

- Site Setup - putting out signs
- Parking Assistance - advice and direction to attendees
- Registration Tent - greet attendees &/or process incoming attendees (packets/pre-purchased OSP clothing)
Shower Truck - collect tickets outside shower truck
- Activities Tent - assist activities coordinator
- Youth Activities - assist youth activities coordinator
- Site Cleanup - picking up signs, site cleanup

Each two hour volunteer shift comes with a special door prize ticket that's just for volunteers. A drawing will be held along with the regular door prize drawing on Saturday. A bottle of water, packaged trail mix, and cookies come too!!! Mike's colorful umbrellas will again be provided for sun shades for the parking & shower truck volunteers.

Mike and/or I will let you know your volunteer times when you arrive and check in at the OSP registration tent. Or if you have a preference of kind or time of volunteer duty, please let me know.

Jan Keiski
jikeiski@juno.com
503-539-4566

RCA Observing Site Committee Begins Fund-Raising



The Rose City Astronomers Observing Site Committee is now offering "Red Light Specials" as one of their first fund-raising projects.

An array of observing aids were presented for sale at the June 21st general meeting. How many times have you bumped into your own tripod legs in the dark? Drat! Now you can attach red-blinking tripod leg lights and create a force-field around your telescope! The Observing Site Committee is offering these clever devices, three for \$10, as well as other red light blinking items: magnetic flashing dots (work on tripod legs, too) three for \$5.00; and red light clip-on map lights, one for \$10.00 or two for \$18.00. The map lights were wildly popular at the meeting and sold out right away, however, we are promised a new supply by the July general meeting.

We are also put on notice to watch for new, exciting fund-raising projects coming soon. This is a great opportunity to help further the efforts of the Observing Site Committee. You get a neat, useful item and potentially a better observing future. Checks are accepted without purchase!



Howard Knyrch (left) discusses Star Hopping and Peter Abrahams (right) discusses the Big Bang at the highly praised May General Meeting.

HICKSON HUNTING AT INDIAN TRAIL SPRING

By Matt Vartanian

Approximately 25 RCA members gathered at the OSP site on September 26th 2003 to kick off the second annual RCA star party at Indian Trail Spring. After the previous month's OSP we were ecstatic to find the area had mostly cleared of forest fire smoke. And we received nearly two extra hours of darkness compared with the prior month.

Earlier in the year I began the Galaxy Groups and Clusters observing program which includes the Hickson compact galaxy groups catalog. These were my main observing targets for the star party. The Hicksons are extremely faint objects that really benefit from dark and transparent skies like those at the ITS site.

My first target Friday night was a Hickson galaxy group called Seyfert's Sextet. The Sextet is not as well known as Stephan's Quintet, and I found out why. I star-hopped to the right location and saw nothing but a few stars. I scanned the surrounding area a bit with no luck. Checking my finder chart I confirmed that I was in the right place so I bumped up the magnification to 250x. Some of these compact groups are very small and become easier to see under higher magnification. After 30 minutes of searching I had been skunked on the first object of the night. And this is an object that even has a nickname! For a moment I wondered if the galaxy groups and clusters observing program was simply beyond the combined abilities of me and my 16" scope. But that thought quickly evaporated, I was having too much fun! The 30 minutes of hunting was a thrill even with no reward at the end. Besides, I knew I would find it eventually. So onward!

I found my next Hickson group in a couple of minutes and felt redeemed. Three galaxies were visible immediately; I quickly detected another with averted vision. It took a while but finally a fifth galaxy made its entrance into the image, just barely at the edge of my perception. I like to try to imagine the scale of the objects I'm observing but I never know if my mind can truly comprehend such things. The immensity of scale that the galaxy groups possess holds much of the appeal for me. I sketched the view in my sketchbook to later compare against charts. Moving on I found and sketched three more Hickson groups then decided it was time for a break. I had a quick cup of coffee then made a diversion from galaxy groups to Jones 1, a large planetary nebula in Pegasus. It showed up best with an OIII filter at around 125x as a broken ring with a half dozen faint stars sprinkled across its face.

I continued with four more Hicksons in the Cetus/Eridanus area and was ready to call it quits. After a night of retina busting observations I finished with M42/M43 in Orion, now fairly high in the sky. Spectacular bluish green smoke studded with faint stars, a real treat for the eyes and a great way to end the first night!

Saturday afternoon I prepared myself by doing some research on Seyfert's Sextet. I reviewed the star field and how big the group should appear in my eyepiece. I was as ready as I could be. Seyfert's Sextet is in Serpens and sets early this time of year so it was my first target. I star-hopped once again to the now familiar location and used moderate power. There it was! It was even more of a treat after the previous night's failure. Indeed the sextet was faint, and so compact that the individual galaxies overlap one another.

I spent a lot of Saturday night on Hickson groups and Abell Clusters in the Andromeda/Pegasus area. The Abell clusters are so big that they span multiple eyepiece views even at low powers and so are difficult to sketch. I had not considered this factor but luckily I had printed out DSS images of these clusters so I used the printouts as a sort of roadmap, meandering through the galaxy field checking off my observations as I went. Saturday night's diversion was a planetary nebula called Pease 1. The most interesting thing about this object is that it is in globular cluster M15. Not superimposed on M15, but an actual planetary nebula within the globular cluster. To find it you have to star hop within the globular! It didn't sound too easy, but surprisingly the star hop was not as difficult as I had expected. Seeing the planetary nebula was a different story altogether. After a lot of straining, changing magnification and a variety of blink test gymnastics, I finally conceded the match. I did not see Pease 1 that night, but I was encouraged and I will be attempting it again. Next time I'll figure out a way to more easily do the blink test, and hope for steadier skies. A quick look at Saturn concluded the weekend, and what an exhausting two nights it was!

The RCA's Indian Trail Spring star party will be held this year on the weekend of September 10th. Consider joining us for some great observing!

Rose City Astronomers 'Downtowner's' Lunch

Next Lunch is Friday July 9 at noon. Join us on the first Friday of each month for lunch at the Great China Seafood restaurant (Holidays and such may push us to the second Friday of some months, check the calendar at <http://www.rca-oms.org>).

Cost is \$6.50 for all-you-can-eat Chinese Buffet Lunch.

Great China Seafood restaurant

334 N.W. Davis, Upstairs on the 2nd floor

Great conversation and buffet lunch.

For more information contact: Margaret McCrea at mmcra@nwl.com



Observing Site Committee

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.

Next Meeting: Monday, July 19, 2004—6:45 - 7:15 PM

OMSI Auditorium (prior to regular Club meeting)

Please Check <http://nemoworld.com/RCA/sitehome.htm> To Confirm and for more information.
or Contact: [David Nemo](mailto:david6366@msn.com) <david6366@msn.com>

YOUNG ROSE CITY ASTRONOMERS

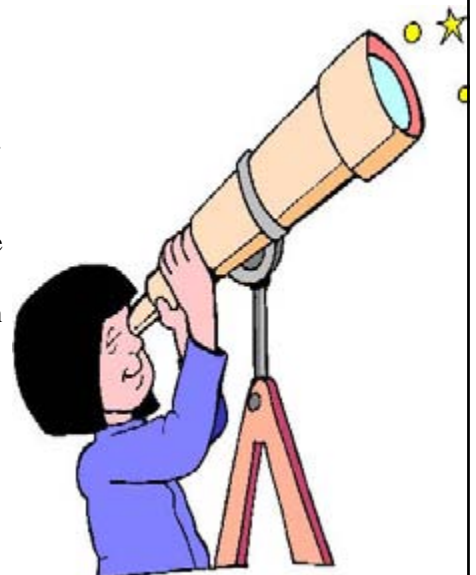
JRCA will start up again during the summer months during the regular RCA meetings for kids age 5 through 12. If you'd like to attend (or your parents would like you to attend), please call Jenny at (503)286-4585 or e-mail her at jenny@theforrest.org to RSVP. This will make it easier for me to prepare for the JRCA meeting! If you can't RSVP or you forget, don't worry about it - come and enjoy JRCA anyway!

We will be studying the Laws of Physics through toys, interactive games, coloring sheets and other paper and pencil sheet. There will also be lots of information available for you to study astronomy on your own or with a friend. Standard classroom behavior is expected even though it takes place in the OMSI lunchroom.

We will also be discussing a possible trip to visit a hospital to bring some astronomy to children who are bed-ridden. This trip will be at least a two-step process - an orientation meeting and then the field trip. Parent involvement will be required for this, so please check with your parents first.

JRCA is also looking for volunteer teachers! If you're 13 or older and interested in helping kids learn about Astronomy, you'll have a wonderful experience working with kids ages 5 through 12 at the JRCA meetings. If you're interested, please call or e-mail Jenny.

JRCA thanks Peter Abrahams for his incredible support of JRCA (and Jenny, in particular) and for his continued generosity to the addition of materials for astronomy education! Peter, you rock!





BOARD MEETING

MINUTES

JUNE 7, 2004
OMSI Classroom 1
Ken Cone

Present: Peter Abrahams, Padraic Ansbro, Matt Brewster, Ken Cone, Larry Deal, Jeff Henning, Carol Huston, Doug Huston, Jan Keiski, Ginny Pitts, Debra Smith-Hirshmann, Matt Vartanian, Larry Godsey

Treasurer – Ginny: \$14,395.99 in our accounts. The board discussed two accounting topics that will better support RCA’s official standing as a 501C3 organization. 1) Requests for funds must be accompanied by vendor receipt. 2) Fiscal year runs July 1 to June 30. Unused funds should close at the end of the fiscal year.

Peter moved and Carol seconded a motion that: Requests for funds must be accompanied by vendor receipt. And, the RCA budget should close at end of the fiscal year, unused funds will revert to the treasury with exceptions on a case by case basis. Motion carried.

The board reviewed budget items proposed for FY2005, made adjustments, and finalized a balanced budget of \$9100. Peter moved and Doug seconded to accept this budget for the next year. Motion passed.

Programming – Matt: OMSI planetarium will show Mars program for future meeting. Howard Knytych will present observing techniques for June meeting. Howard Banich will describe his new scope, maintenance, and optics coming up in July.

Membership – Doug: 388 member families.

Star Parties –Matt V: OMSI star party this Saturday, see Jim Todd’s announcement. Also, June 19th Larch coming up. Motion for Larry Godsey to take excess camp Hancock money from last star party, as donation and purchase eye-pieces or other Hancock request, for Camp Hancock. Doug Huston moved, and Peter Abrahams seconded, motion carried.

Community Affairs – Padraic: Two star parties coming up in July for MDA. Members are encouraged to volunteer their time and telescopes to these community projects. See email list for details.

Sales – Sameer: \$200.00 for May with exact amount sent to Ginny.

New Members – Carol: Suggested that new members receive an acknowledgement letter from the club. Most new members now sign up for internet newsletter access.

Dark Sky Association – Bob: nominal

AL – Dale: AL raised rates that amounts to estimated \$2000 for the club.

SIGs – Matt B: nominal

Magazines – Margaret Campbell-McCrea: nominal

Editor – Larry D: Action printers bought out, considering looking for new printer

Library – Jan: Budget on track. A donation to RCA Library will be used for new books

YRCA – Jenny: nominal

Webmaster – Dareth: nominal

OMSI – Peter: nominal

Telescope Library – Jeff: nominal

Copying – Deborah: nominal

Phone line: - Padraic will run the phone line for June.

SPECIAL INTEREST GROUPS

ASTROPHYSICS / COSMOLOGY

Date/Time: Thursday, July 22, 7 PM.

Speaker/Topic: Lamont Brock , Moons of Saturn

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, July 10th, 10 AM - 3 PM.

Place: Technical Marine Service, Inc. 6040 N. Cutter Circle on 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 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)
503-539-4566

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

DEAR ASTRONOMY ENTHUSIAST AND POTENTIAL MENTOR

OK, all you latent or actual teachers: you're passionate about astronomy, you know a thing or two about the subject, and you love the idea of passing on some of your knowledge and excitement to a kid.

Below is an offer which will be included in this year's OSP registration packet. Please read it over, then read on.

Is your family telescope a bit too technical for the 10-to-18 year old in your family? Are your kids not getting much telescope time when competing with the rest of the family? At this year's Oregon Star Party we are offering a Youth Telescope Area. This is an opportunity for your son or daughter to have quality time with a telescope, a sky chart, and a personal guide. We offer the use of the following 'scopes which belong to the Astronomy Club at Century HS, Hillsboro OR. and several members of the Rose City Astronomers:

- Two 2 ¾ in. Meade refractors
- Two 4 ½ in. Meade Newtonian reflectors
- Four Dobsonian reflectors: one 4 ½ in., one 6 in., two 8 in.
- One Meade ETX 60 AT
- One Celestron Nexstar 114 GT

Parents are asked to sign their kid up for a one-hour time slot with one of the above telescopes upon arrival at the star party registration tent.

This program is offered for Thursday, Friday, and Saturday evenings from 9:00 to 11:00 PM in the area adjacent to the kid's activity tent. Participation will be limited to 20 per evening.

Kids will be paired up with and guided by a knowledgeable adult at each telescope.

Parents are asked to personally deliver their child and meet the mentor adult at the beginning of their time slot. Hanging around for the hour is optional.

We can't personally guarantee the quality of the education given here, but we have made a serious effort to recruit qualified mentors, and it seems to us there's an opportunity here which deserves your consideration.

If this is something you'd like to help make happen, please contact me at kuehnb@earthlink.net or (503) 628-3077. I'll need to know the following:

For which time slot(s) will you be available?

- Thu. 9-10, 10-11
- Fri. 9-10, 10-11
- Sat. 9-10, 10-11

At which telescope would you prefer to assist?

To guide you in your mentoring efforts, it seems to me that you will probably want to concentrate on knowing the location of the major constellations, use of a star chart, location of interesting sky objects, and the ability to use the telescope to see them. The needs and interests of the kids will, of course, figure greatly into your assistance efforts.

This is the first year we have offered this program, so it is a bit of an experiment. Should you decide to help us, we will welcome your suggestions for improvement.

Bernie Kuehn

RCA/OSP Committee

Your help is needed for two different star parties for the kids at Muscular Dystrophy Association Camp and the Diabetes Camp.

MDA Camp Arrah Wanna – July 10th Saturday – Location: 24075 E. Arrah Wanna Blvd., Welches

Diabetes Gales Creek Camp – July 27th Tuesday – Location: 59425 NW Cedarbrook Lane, Forest Grove

Since 1955, MDA has provided summer camp experiences for youngsters with neuromuscular diseases by providing an unforgettable week at MDA Summer Camp. Campers generally say the week they spend at MDA camp is "the best time of our lives."

These camping programs offer a wide range of activities specially designed for children with limited mobility or who use a wheelchair, ranging from ages six to 21. ***They would love to add a Star Party to their activity agenda!

We are looking for telescopes for viewing as well as people to describe the night sky. Please contact me with your volunteer availability.

Thanks, Padraic
VP Community Affairs
503-349-4864

Observing in Europe – Part I

Pursuing the elusive image of Venus

By Bob McGown

In preparation for our Venus Transit Expedition 2004 to Europe to watch the Venus Transit, I went to Peter Abraham's house to construct a new solar filter for my scope and discuss historical transit observations. Then I found myself at Sean's Astronomy Shop testing solar filters and tuning up a 78mm Comet Hunter telescope that I recently picked up from John Siple, an RCA antique telescope collector from Corvallis, Oregon. It would prove to be an ideal travel scope for the Venus Transit. We had made plans to observe the transit with a local astronomy club as well meeting up with RCA member Maurice Stewart and his daughter Margot, in Lugano, Switzerland. This charming city nestles in the rain shadow of the Alps very near the Italian border.



In our cousin's village on Lake Geneva, two weeks before the transit, we found that the best night observing conditions we could hope for would be fourth to fifth magnitude skies. The combination of the size of the scope and the limiting magnitude made it a challenge to bring in deep sky objects in Switzerland and France. However we overcame these two small difficulties and were able to hold a star party for our Swiss cousins at Commungy, a village near the CERN complex. In the Comet Hunter, we showed our 86-year-old visiting Aunt from England the Moon for the first time in her life. She was awestruck at her first views of the crescent Moon and the rings of Saturn!

Notes on traveling with a scope

Getting a telescope through customs is getting easier than it used to be, now that people are bringing more of them through customs. Many people are bringing large fiberglass containers that resemble split fiberglass sono tubes through Customs. These cases snap up in two pieces and carry everything from golf clubs to tripods and musical instruments. Sometimes the Customs official will look through the eyepieces or sight down the tube of the telescope. Our Comet Hunter scope resembled a Questar, so we carried it in a suitcase with our box of accessories wrapped in a swimsuit. The heavy-duty tripod was stored separately in a duffel bag.

Solar binoculars and solar telescopes can also be a problem where the customs officer cannot look clearly through the binoculars or solar scope. Sometimes the inspector will try to check out the solar scope by pointing it at a bright light. As dedicated amateurs, we know this won't work. As Maurice Stewart reminded us, be sure to tell the customs inspector that the instrument is narrow field and can only observe the Sun or a welders arc through the aperture.

We alerted the Customs officer operating the X-ray machine to watch out for our telescope as it came by on his conveyor belt. According to RCA member Mark Dakins, a customs official is likely to break open the box, a sealed box, to inspect the scope. Sealed boxes of any kind are not a good idea! For us there was another challenge of carrying our Venuscope, a French built solar projection instrument. We noticed hauling large heavy duffel bags in Charles Degalle Airport in Paris drew the attention of some soldiers with automatic rifles on our way to observing in Tenerife and La Palma in the Canary Islands (Spain). Additionally, we experienced a complete power outage while at the Madrid airport on an escalator! When back-up emergency power was restored the computers were still down and we were forced to have our boarding passes manually issued at the main terminal far from our departure gate and after that, running for our plane!

Dark skies of Europe?

We found that observing in France near Chamonix and from the Gornergrat observatory near Zurmat is considerably better than Geneva because the Alps blocked out the light pollution from the city. The only potential drawback is that the Alps, especially near the Mont Blanc massif, create their own weather and occasionally lenticular and high cirrus clouds degrade seeing conditions.

The lighting around Geneva tends to be carriage lights capped with decorative hoods added to the stray lights. Around the suburbs in the vicinity of the CERN Particle Accelerator there are cut-off lights with cobra hoods. These are tilted up about 5 to 15° and don't seem to create light bounce or affect the spread of the light bubble into the lower atmosphere too much. Our cousins reminded us that in Europe electricity costs much more per kilowatt-hour than in the Pacific Northwest so energy efficient lighting is more desirable.

(Continued on page 9)

Pursuing the elusive image of Venus *(Continued from page 8)*



Commercial areas of lighting from airports, stadiums, street lighting and industry are the largest culprits of light pollution. In sky glow areas around Paris and other European cities the amount of light that escapes into the atmosphere is excessive. Another factor that accentuates light pollution in Europe is the amount of particles in the atmosphere. In the lower atmosphere, the particulates in Europe tend to come from smoke, factory and auto emission due to the lack of standards for so many years for air quality control. This creates light absorption and reflection in the atmosphere, which hampers transparency and limiting magnitude. The European Union is concerned about the environment and air quality and since 2001 has set upper limits on emissions which each country must follow with the goal to be reached in 2010.

We noticed it was much darker in the village of Commongy on the north shore of Lake Geneva than at the end of our trip at Zurich Observatory. In Zurich we found ourselves observing on a 30 cm antique Zeiss refractor, viewing planets and double stars despite the light pollution of Zurich, Switzerland's largest city. At the observatory, eyepiece cups and a hood were helpful for fighting unwanted stray light even after we were dark-adapted. We were able to discuss lighting efficiency, environmental and the health issues of light pollution with Swiss and French amateurs and professionals. We also had a delightful snack before our observing that evening in the Jules Verne Lounge, directly below the observatory, where we met a friendly native who spoke excellent English and told us the best parts of Zurich to visit!

Hunting the dark

Serious observers wanting a dark sky European observing experience, may elect to travel to the Canary Islands. In La Palma or Tenerife observing under dark skies where high altitude, steady seeing conditions, and dark skies void of light pollution creates a dark sky Mecca, like a Mauna Kea experience. Spanish legislation safeguards the dark skies of La Palma, protecting one of the greatest arrays of telescopes on the planet.

In the late 1990's, an experiment was done on the island in which every single light in La Palma was turned off, to contrast the effects on observations. There was not an appreciable drop in magnitude. However there was one small difference in the observed spectral lines. This could be zeroed out for a spectral analysis, so there was no net effect on the measurement. We noticed that only some school stadium lights as our ferry came into La Palma about 11 p.m. Other than that, the island was very dark.



The challenge of searching for dark skies in Europe is much like all of our experiences in the Pacific Northwest, whether it be city or rural. It is hard to find but oh, so good, when you do! I'll leave you with a little poem we wrote after a few glasses of that famous Swiss red wine at the Jules Verne Lounge! Stay tuned for Part II relating our adventures in capturing the elusive disc of Venus, beginning with the first contact ingress Lugano and climaxing with the black drop in Zurich!

The Rose City Astronomer's Mantra

Light pollution we shall battle,

No glare too harsh to shroud,

Not rain, nor drizzle, nor darkening clouds,

Shall keep loyal RCA observers

From their night skies' passion.

Be Kind, Renew on Time!

It's that time of year again, astronomy friends, to renew your membership with the Rose City Astronomers. As most of you are aware, we have a fiscal calendar year from July 1 to June 30th. If you are new to the club, you may have paid a pro-rated membership fee.

We begin a new fiscal year with the good news that dues will remain the same at \$24.00. This is a bargain for all the benefits available to you--as we are sure you are well aware.

How to renew? Checks or cash are accepted at the general meeting. Plenty of renewal forms available also. You may print the renewal form from the RCA website and mail it with your check (no cash in the mail, please). At this time we are unable to accept credit or debit card payments.

At the general meetings you'll find the friendly membership people, Doug and Carol Huston, at a table just inside the entrance of the Omsi auditorium. They're ready to receive your prompt renewal and answer any questions, too!



OMSI July Kicks Off With Rare Celestial Occasion - a Blue Moon

A blue moon is usually explained as a full moon, which occurs twice in the same month. In July 2004, it is on the 2nd and 31st. A blue moon occurs every 3 to 4 years, when the date for one full moon falls on or near the beginning of a calendar month so that the following full moon comes before the end of the same month.

There are several different meanings for the term 'blue moon.' The phrase 'blue moon' has been around over 400 years, but during that time its meaning has shifted around a lot. The earliest reference was cited in The Maine Farmers' Almanac, 1937. The almanac states that when there were two full moons in a calendar month, calendars would put the first in red, the second in blue."

In astronomy, as stated above, a 'blue moon' is the second full moon to appear in a single month. However, in meteorology, the correct definition of a blue moon is the physical explanation of why, on rare occasions, the moon appears blue. The scattering of moonlight causes a "blue moon" by smoke particulate. The red end of the spectrum is scattered more than the blue end of the spectrum, which causes light seen from the moon to look more blue: hence, a blue moon.

Despite the differences in meaning, in general terms, the rarity of seeing a moon that looks blue and/or the rarity of two full moons appearing in one month prompted the well-known saying "once in a blue moon," which means something that happens very rarely.

ANGLE OF SUN OFFERS RARE GLIMPSE INTO MOON'S CRATERS, HIGHLANDS

Because Earth's moon will be in a perfect position for viewing on Saturday, July 24, the Oregon Museum of Science and Industry, Rose City Astronomers and Vancouver Sidewalk Astronomers have organized a Star Party, beginning at 9:30 p.m. in OMSI's East Parking Lot.

Jim Todd, OMSI's Kendall Planetarium manager, said that the angle of the sun will cause deep shadows to fall on the moon's surface, making its highlands and craters more easily visible. Beginning and expert stargazers are invited to use a variety of telescopes owned by club members to view the moon and other objects in the sky.

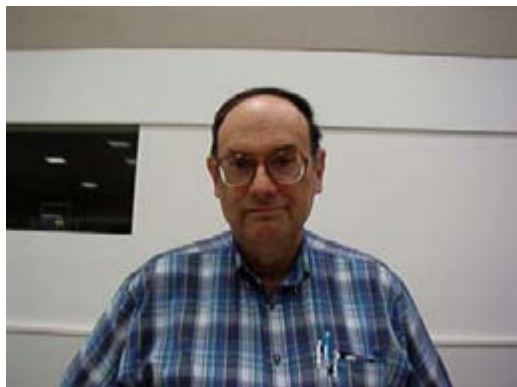
"For astronomers, this is the best opportunity to view the details of the moon's surface with binoculars and telescopes," Todd said. "Visitors will also be able to see a perfect image of a first quarter moon, star clusters, nebulae and other celestial objects," he added.

Todd 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.

It is suggested that interested visitors call (503) 797-4610 on July 24 after 4:00 p.m. for possible weather-related cancellations. The event is free and open to the public.

Member Profiles

By Debra Smith-Hirshmann



Date: June 2004 general meeting
Name: Terry Hannan
How Long in RCA: Started in early 1990's
Number of Telescopes owned: Two
Telescope most used: Nexstar 8i (8" SCT Goto)
Observing site most used: Balcony off condominium
Next observing project/challenge: Nexstar lunar and deep sky observing certificate. Nexstar has its own certificates for goto scopes.

Date: June 2004 general meeting. **Name:** Maurice Stewart
(Often brings displays to the general meetings such as shown in the picture. This is a copy of a letter written in 1610 by Sir Henry Wotton, British Ambassador to Italy, regarding the discoveries of Galileo.)
How Long in RCA: Since 1998 **Number of Telescopes owned:** One
Telescope most used: Televue 85
Observing site most used: A parking lot just South of Omsi, but not Omsi
Next observing project/challenge: Getting better acquainted with the moon. Has a new French lunar atlas. Received an Astronomical League Lunar Certificate last year.



Date: May 2004 General Meeting
Name: Rob King
How Long in RCA: Since 1999
Number of Telescopes owned: One
Telescope most used: 6" maksutov-newtonian (Russian)
Observing site most used: Klondike
Next observing project/challenge: Caldwell list; has bagged 25 so far.

Date: May 2004 General Meeting
Name: Vern Weiss
How Long in RCA: Since 1999
Number of Telescopes owned: Two
Telescope most used: 10" Teleport (telescoping Dob)
Observing site most used: Larch
Next observing project/challenge: Continue to work on Herschel I and Introduce neighbors to astronomy



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

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July 2004

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 2004

Jul 9	Fri	Downtowners' Lunch	G. China Seafood	Noon
Jul 12	Mon	RCA Board Meeting	OMSI Classroom	7pm
Jul 17	Sat	RCA Star Party	Larch Mountain	Dusk
Jul 19	Mon	RCA General Meeting	OMSI Auditorium	7:30pm
Jul 22	Thu	Astrophysics/Cosmology SIG	Linus Pauling House	7pm
Jul 24	Sat	OMSI Star Party	OMSI Parking Lot	Dusk

August 2004

Aug 2	Mon	RCA Board Meeting	OMSI Classroom 1	7pm
Aug 12	Thurs	OMSI Perseid Meteor Shower	Rooster Rock	Dusk
Aug 12-15	Thu-Sun	2004 Oregon Star Party	Indian Trail Springs	Thu-Sun
Aug 14	Sat	RCA Star Party	Larch Mountain	Dusk
Aug 16	Mon	RCA General Meeting	OMSI Auditorium	7:30pm
Aug 19	Thu	Astrophysics/Cosmology SIG	Linus Pauling House	7pm

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>

The

Rosette Gazette

Volume 16, Issue 8

Newsletter of the Rose City Astronomers

August, 2004



RCA GENERAL MEETING MONDAY AUGUST 16 A PRESENTATION AND A PLANETARIUM SHOW!

Planetarium Show:

Mars, a new digitally animated space show, now showing at OMSI's Harry C. Kendall Planetarium. The museum's newest ultra-high definition, full-dome SkyVision(tm) show attempts to answer some of the questions that come to mind when we think of Mars: What happened out there? Was there once life? What happened to the water? Could there still be life...somewhere?

As an armada of spacecraft hurtles towards the Red Planet, it's time to share in the great voyages of discovery - so take your seat for Mars, an amazing 4.5-billion-year-old story. The entertaining and accessible style of Mars forges through the science and the fiction, fast-forwarding to the space age and the dusty, cratered world of the Mariner, Viking and Pathfinder missions.

The awe-inspiring history of the planet unfolds in spectacular high-definition 3-D graphics: the relentless pounding by meteorites, the opening of deep canyons, the raising of towering volcanoes and the evidence of long-vanished oceans.

(Continued on page 3)

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Hubble Deep Field above courtesy R. Williams (STScI), the Hubble Deep Field Team and NASA

Moon photos below courtesy David Haworth



In Memoriam, Jim Girard.

RCA member and officer Jim Girard passed away July 22, 2004, of complications from a long term heart condition. Jim served as President and Editor for the RCA; was a long time leader of the telescope making workshops; led the organization of the Imaging the Sky conferences; formed & led SIGs for astro-imaging; and worked with the Oregon Star Party volunteer group. At press time, plans for a memorial service are undecided. Jim is survived by his wife Gloria, who welcomes contacts.

Gloria McCauley; PO Box 254; Beaverton, OR 97075.

Jim Girard will be remembered for his years of service, and greatly missed. *Peter Abrahams*

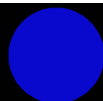
Photo by Jan Keiski

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

Last Quarter Moon
August 7, 3:01 PM. PDT



New Moon
August 15, 6:24 PM PDT



First Quarter Moon
August 23, 3:12 AM. PDT



Full Moon
August 29, 7:22 PM. PDT



Club Officers			
President	Peter Abrahams	(503) 699-1056	telscope@europa.com
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VP Community Affairs	Padraic Ansbro	(503) 349-3864	whiteowl@ansbro.com
VP, Communications	Matt Brewster	(503) 740-2329	m_brewster@juno.com
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OSP Liaison	Dareth Murray	(503) 957-4499	darethlee@comcast.net
Camp Hancock Liaison	Glenn Graham	(503) 579-1141	the.grahams@verizon.net
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SIG Director	Matt Brewster	(503) 740-2329	M_brester@juno.com
Youth Programs Director	Jenny Forrester	(503) 504-8070	jenny@theforrest.org



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-oms.org/siteindex.htm>
 Then click on any of the magazine links. Margaret McCrea, 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.



President's Message

By
Peter Abrahams
August 2004

Amateur astronomy can be observing the sky; or it can involve measuring, analyzing, and researching the sky. Observation itself can be a lifetime's occupation, and is its own reward. For those who choose to pursue science on an amateur level, astronomy is one of the most accessible of the sciences. Contributions by amateurs are genuine and

publishable, especially as compared to sciences such as biochemistry or nuclear physics. The American Astronomical Society met in Denver this June, and a special session was held on 'Professional-Amateur Collaboration for Enhanced Research'. Some highly interesting papers included these:

*'The AAS Professional-Amateur Electronic Registry; established to create an online registry to allow amateur and professional astronomers interested in collaboration to connect.' *'Pro-Am Collaborations for Education and Public Outreach.' *'Amateur Spectroscopy: What is Achievable from the Backyard?' *'The Small Telescope Science Program, a collaborative effort to gather optical data on Comet 9P/Tempel 1, the target of Deep Impact, a NASA Mission.' *'Planetary Studies; oval storms on Saturn, rotation rates were determined' *'Asteroid Lightcurve Photometry, We now have rotation periods for more than 1500 asteroids, extending down to objects only tens of meters in diameter' *'Transtsearch, to Discover Transiting Extrasolar Planets, The transit of 8th magnitude HD 209458 has been observed by at least a dozen non-professional astronomers using telescopes as small as 4 inches in aperture' *'Pro-Am Collaborations on Eclipsing Binary Star Problems' *'Observing Blazar Variability', NASA's gamma ray observatories will be augmented by 'ground-based telescopes will observe GLAST targets to provide a multi-year baseline of variability characteristics'

Abstracts for these papers, and others, can be found at:

<http://www.aas.org/publications/baas/v36n2/aas204/S350.htm>

Oregon Star Party 2004 Volunteer Opportunity!

For a great way to meet people and contribute to making the Oregon Star Party the great star party it is, volunteer for one or more of the many fun volunteer opportunities available:

- Site Setup - putting out signs
- Parking Assistance - advice and direction to attendees
- Registration Tent - greet attendees &/or process incoming attendees (packets/pre-purchased OSP clothing)
Shower Truck - collect tickets outside shower truck
- Activities Tent - assist activities coordinator
- Youth Activities - assist youth activities coordinator
- Site Cleanup - picking up signs, site cleanup

Each two hour volunteer shift comes with a special door prize ticket that's just for volunteers. A drawing will be held along with the regular door prize drawing on Saturday. A bottle of water, packaged trail mix, and cookies come too!!! Mike's colorful umbrellas will again be provided for sun shades for the parking & shower truck volunteers.

Mike and/or I will let you know your volunteer times when you arrive and check in at the OSP registration tent. Or if you have a preference of kind or time of volunteer duty, please let me know.

Jan Keiski
jikeiski@juno.com
503-539-4566

General Meeting *Continued from Page 1*

Join in the latest discoveries from the Global Surveyor and Mars Odyssey. Contemplate the findings of a new generation of Mars exploration craft in the race to find liquid water and life. Finally, take a speculative look into the future - and the presence of humans on the planet.

Presentation:

Creating Observing Lists: Organizing objects into SkyZones(TM)

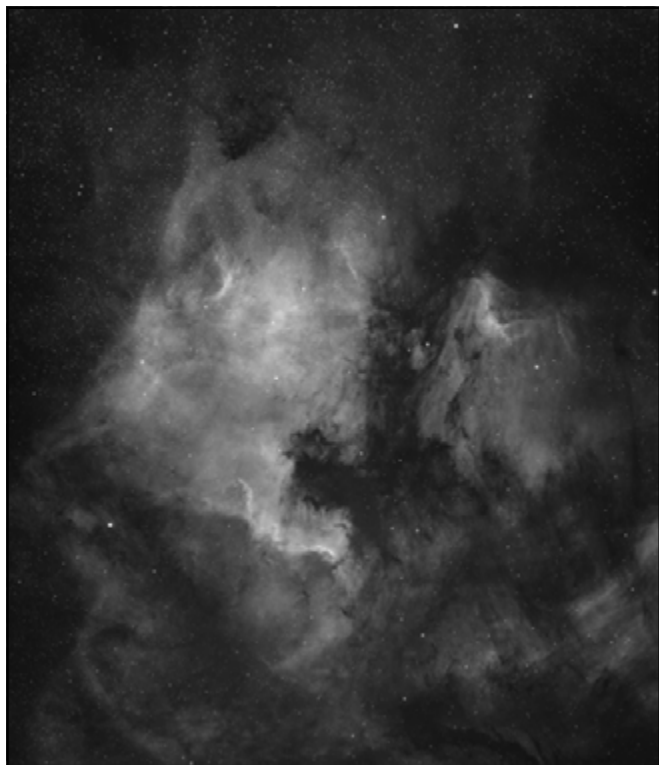
Are you looking at your Messier List & Charts and wondering which objects are visible tonight? Are you done with the Messier and you are wondering what is the next list? What object lists are there beyond the Messier? Is there some sequence or priority to observing objects within the list? Even for amateurs who have a "Go-To" scope, what should you look at next?

NightSky45 member Dave Kasnick will present some strategies and methods for creating an observing list. He will describe how many amateur astronomers create observing lists 'manually' by researching with the constellation-by-constellation approach. Then he will describe how he developed an Excel based program called SkyZones(TM) that will generate an observing list based on criteria specified by the user. The program calculates to determine if each 'object' is visible and it's placement in the sky and prioritized. Other criteria can be used to further refine the list. SkyZones can be applied to any list of objects.

Monday August 16
Social Gathering: 7 pm.
Meeting Begins: 7:30 pm.
Location: OMSI Auditorium

CORRECTION: The July Rosette Gazette incorrectly reported presenters Howard Knyrch and Peter Abrahams were photographed at the May General Meeting. The presentations and photos were actually made during the June General Meeting. Photos by Jan Keiski. *Ed.*

RCA Photo Gallery



H-alpha image of the North America Nebula and Pelican Nebula. This was done with the new 35mm format CCD camera in Vancouver Washington the week of July 12.
Michael Cole
<http://home.earthlink.net/~urbanimager/index.htm>



IC 5146, The Cocoon Nebula
Imaged June 18,19 and 20 2004 in Central Oregon, RCOS 12.5, AP 1200 mount, ST10XE, CFW8 color wheel.
Michael Cole
<http://home.earthlink.net/~urbanimager/index.htm>



M8, the Lagoon Nebula; M20, the Trifid Nebula; IC 1274, IC 1275, IC 4685 and NGC 6559 in counterclockwise order.
Imaged June 20, 2004 from Marieth Observatory in Central Oregon, FSQ 106N on EM 200 mount with SBIG STL 11000.
Michael Cole
<http://home.earthlink.net/~urbanimager/index.htm>



Awards

Jeff Henning
Messier Award Number
2002

Dave Powell
Messier Award Number
2072

For more information visit:
<http://www.astroleague.org/al/obsclubs/obsclub.html>

Rose City Astronomers 'Downtowner's' Lunch

Next Lunch is Friday August 6th at noon. Join us on the first Friday of each month for lunch at the Great China Seafood restaurant (Holidays and such may push us to the second Friday of some months, check the calendar at <http://www.rca-oms.org>).

Cost is \$6.50 for all-you-can-eat Chinese Buffet Lunch.

Great China Seafood restaurant

334 N.W. Davis, Upstairs on the 2nd floor

Great conversation and buffet lunch.

For more information contact: Margaret McCrea at mmcra@nwl.com



Observing Site Committee

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.

Next Meeting: Monday, August 16, 2004—6:45 - 7:15 PM

OMSI Auditorium (prior to regular Club meeting)

Please Check <http://nemoworld.com/RCA/sitehome.htm> To Confirm and for more information.
or Contact: [David Nemo](mailto:david6366@msn.com) <david6366@msn.com>

YOUNG ROSE CITY ASTRONOMERS

JRCA will start up again during the summer months during the regular RCA meetings for kids age 5 through 12. If you'd like to attend (or your parents would like you to attend), please call Jenny at (503)286-4585 or e-mail her at jenny@theforrest.org to RSVP. This will make it easier for me to prepare for the JRCA meeting! If you can't RSVP or you forget, don't worry about it - come and enjoy JRCA anyway!

We will be studying the Laws of Physics through toys, interactive games, coloring sheets and other paper and pencil sheet. There will also be lots of information available for you to study astronomy on your own or with a friend. Standard classroom behavior is expected even though it takes place in the OMSI lunchroom.

We will also be discussing a possible trip to visit a hospital to bring some astronomy to children who are bed-ridden. This trip will be at least a two-step process - an orientation meeting and then the field trip. Parent involvement will be required for this, so please check with your parents first.

JRCA is also looking for volunteer teachers! If you're 13 or older and interested in helping kids learn about Astronomy, you'll have a wonderful experience working with kids ages 5 through 12 at the JRCA meetings. If you're interested, please call or e-mail Jenny.

JRCA thanks Peter Abrahams for his incredible support of JRCA (and Jenny, in particular) and for his continued generosity to the addition of materials for astronomy education! Peter, you rock!





BOARD MEETING MINUTES

JULY 12, 2004
OMSI Parker Room
Bob McGown for Ken Cone

Present: Peter Abrahams, Matt Vartanian, Bob McGown, Dale Fenske, Dareth Murray, Padraic Ansbro, Debra Smith-Hirshmann, Sameer Ruiwale, Jan Keiski

Treasurer - Ginny: Nominal

Programming - Matt B: Nominal

Subscriptions - Margaret: Nominal

Membership - Doug: 396 member families and 143 in attendance at last general meeting.

Star Parties - Matt V: Three star parties this coming weekend: Table Mountain, Mt. Bachelor & RCA's White River Canyon. Bob, Dareth & Jan will be at White River. Matt will be at Mt. Bachelor. Discussed OMSI's next star party July 24th which will be a lunar viewing party in the East Parking lot.

OSP was discussed. There will be a last minute sign-up at the next general meeting on the 19th. Dareth, Jan & Matt will assist.

Community Affairs - Padraic: The MDA astronomy party on July 10th was a partial success. Two RCA members brought their scopes & binoculars (Tom Nathe and Blair Evans). Unfortunately the skies became cloudy but the 50 some children still had fun looking at the scopes and the green laser pointers! The Gales Creek Diabetes Camp will be July 27th, Tuesday. Volunteers are urged to contact Padraic.

Sales - Sameer: Nominal

New Members - Carol: Nominal

Light Pollution - Bob: Tim Crawford from Arch Cape near Cannon Beach is leading a crusade to win a light pollution ordinance in Clatsop County. Anyone interested in more information, please contact Bob McGown, bobmcgown@comcast.net

ALCOR - Dale: A.L. dues are due! Dale will report the membership as it was at Jan. 1, 2004 for proper accreditation for Reflector Newsletter copies as well as the AL membership records.

SIGS - Matt B: Nominal

Editor - Larry D: Nominal

Magazines - Margaret Campbell-McCrea: Nominal

Library - Jan: Nominal

JRCA - Jenny: Nominal

Webmaster - Dareth: The RCA list was down for several days. Mike R. has since solved the problem.

OMSI - Peter: OMSI Space Day is July 17th. It has been highly publicized. RCA will staff a table with brochures and other promotional items. Peter, Bob, Dareth, Tammi and Ken Cone have volunteered to help out. More volunteers would be welcome! Please contact any of these board members to get a time slot at OMSI. If there are enough volunteers, we might be able to have the solar scope available.

Telescope Library - Jeff: Nominal

Copying - Debra: Will have plenty of RCA Trifolds for Space Day.

Phone line:

July 23-Aug 2 - Padraic

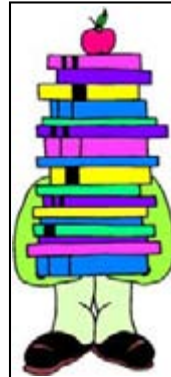
Aug 2-Sept. 6 - Dale

Sept. 6- Oct 4 - Matt V.

New Business:

President Peter said it is not too early to be thinking of a nominating committee for officers for next year. He also mentioned that those officers who plan on remaining in their present position should indicate that to the board and the nominating committee.

He reiterated his position to move on to another position on the board.



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)

503-539-4566

Visit the RCA library web page at:

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

OBSERVING COMFORTABLY

By Tom Nathe

To begin with, I know I'm not an authority on what is going to be presented here, these are things that have worked for me over the past couple of years worth of peeping through the eyepiece of my telescope and noticing what other people do to be comfortable. Your experiences and results may be wildly different from mine. There is cost involved as well. If you can make the items that I mention below yourself all the better, otherwise you may need to budget your expenses accordingly.

Comfort

Observing to me is all about comfort. What's the point of finding and looking at some dim fuzzy if your back or neck is hurting from being hunched over or craning upward for a long period of time? Or if an astoundingly clear and steady evening sky puts you off from going out and observing just because it's a cold night? Some of the items below might help you in getting started.

Practice, Practice, Practice

Get to know your telescope before you buy too many accessories. Learn how it moves, its and your limitations and how to set it up and tear it down in the dark. Then see what other people use for equipment with telescopes similar to yours. From there you can decide what works best for you and what type of accessories to get next.

Equipment Table

When I first began observing, I just set up my charts, eyepieces and other accessories on the tailgate of my pickup. This arrangement worked fairly well until I got a new car, then I had nowhere to lay my equipment out. A folding table is really nice. Depending on its size (mine is 3 foot by 2 foot), you can spread out and organize your gear. I set mine up against the side of the car, so that car acts as a windbreak as well (sometimes this only works in my mind). One thing to watch out is the type of roll up table that has slats on the table surface. These slats are open and allow for small items to fall through. As long as the table surface is covered, this type of table is fine. Also have one or two shallow trays to keep eyepieces and other round objects from rolling off of the table. I try and keep eyepieces in one part of the table, charts on another and a space for snacks or a water bottle.

Accessory Carriers and Gear Bags

Having something that you can carry your eyepieces, filters, books, charts, snacks and whatever else you feel is important to have for an observing session is vital. Fishing tackle boxes, rucksacks, toolboxes all have been used. There are commercial boxes designed for eyepieces or cameras. The key item is ease of use and protecting your gear. You want something that latches securely and prevents the items inside from getting damaged. Those items that are easily damaged should be surrounded by some sort of cushion like foam rubber. One other thing that I do is place a couple of packets of silica gel desiccant in my carriers. This helps soak up any moisture that might stay in the carrier.

A gear bag for me is something that holds all those little items such as spare screws, bolts, nuts, tools and batteries. This is the stuff that might only cost a few cents but can stop an observing session just as easily as forgetting your telescope's tripod. I use a rucksack for holding my books and in the side pockets I keep the spares that my scope might need.

Observing Chairs

These things are really nice to own. For an SCT or refractor owner, it can mean the difference between a fun all night session or just a couple of hours of eyepiece time then and head home with a sore back and neck. An observing chair just allows you to sit comfortably for a longer periods of time at the eyepiece. The seat on the better chairs has a wide range of adjustable heights, pretty easy to set up and are fairly comfortable. You can build your own, if you are handy at woodworking. There several plans on the Web for building chairs and careful reading of how the chair works may lead you to something that works for you.

Commercial chairs are of course more expensive. Most of these are made of metal as well. Of both the commercial and home-made seats, there are two main types – the infinitely adjustable “slider” seat and the “hook and rung” type. My chair is a commercial “hook and rung” variety and cost just under \$200. And it is worth every penny to me, I never go observing without it. The “slider” type of seat to me seems more prone to sliding when you least expect it to and when the slider rails dew up, the seat barely seems to hold its place. Those folks who own such a seat might have a solution to this problem.

Step Ladders for Dobsonian Telescopes

Since I don't own a dobsonian, I'm going on others experiences and what I have seen others do. Those with Dobsonian style telescopes do have an easier time of it, that is until the aperture of their telescope makes the thing to tall to observe comfortably. Then a stepladder is needed. Ladders that I have seen used are quite wide, have a tall grab handle at the top with a tool tray and with steps that are wide and deep for getting nearly your full foot to rest on.

Binocular Mounts and Holders

For binocular viewers, a parallelogram holder is a must. The mount holds the binoculars instead of you, which steadies the view and takes the weight of the binoculars away from the viewer also. The main problem with most of these types of holders is that near zenith views are still a literal pain in the neck to use. There are binocular mounts that use a mirror to view the zenith with. I haven't tried one out, but the expense seems a bit steep. The view in these is also left – right flipped as well. Again you can build your own or get a commercial mount. A good mount is one that is easy for you to use, can handle the weight of the binoculars that you are using and is easy to set up and carry.

For me, I find that standing while looking through binoculars is more comfortable then sitting. Not sure why that is, but it works.

(Continued on page 9)

The 2004 Perseid Meteor Shower

By Wes Stone

The Perseids may be the best annual meteor shower. For Oregonians, this shower certainly offers the best odds for clear skies around the peak night. For several years, West Coast observers have not seen the Perseids at their best due to moonlight and/or bad timing of maximum activity. 2004 should be better. The Moon is a waning crescent, but shouldn't be too much of a problem. The nominal peak time will be near the beginning of morning twilight on August 12. Although we might miss part of the maximum in twilight, it's almost certain that activity will be high during the morning darkness when the Perseid radiant is high in the sky. All in all, conditions are similar to 1996. In that year, observing from White River Canyon near Mt. Hood, I saw good rates all night, and 96 Perseids in my last hour of observing. That memory has me licking my chops for this year!

The first Perseids are noted in mid-July each year, but are very few and far between. In late July, rates increase to 2-3/hour and add to the high level of meteor activity that can be seen before dawn. Rates climb slowly through the first 1.5 weeks of August, until the majority of meteors seen are Perseids. There is typically a steep increase in activity on August 11, with a maximum on August 12 or 13. During this leap year, the maximum is predicted for Thursday morning, August 12 at around 4:00am PDT.* After the peak, activity falls off rather quickly, although rates are still fairly impressive for a couple of days.

To see the highest rates, you'll want to be watching near the peak. Although you can start observing as soon as the sky gets dark (around 10:00pm), the Perseid radiant is low in the sky at that time. On Wednesday evening, August 11, initial rates will probably be around 20-30 per hour from a dark site. Rates will increase throughout the night as the peak approaches and the radiant rises. From 1:00am on Thursday morning until the sky starts to brighten with twilight (around 4:30am), the Perseids should really be hopping. A perceptive observer in a dark Central Oregon sky (hopefully clear and relatively smoke-free!) might expect to see 80-100 Perseids per hour during this key time. The Perseids won't be the only meteors you'll see; expect 15-25 "others" each hour during the morning. Most of these will be random sporadics, but several minor showers are active, including a radiant complex in Aquarius and the slow Kappa Cygnids near the head of Draco. The Northern Apex is a diffuse radiant near the feet of Perseus; unwary observers may confuse these meteors with Perseids. Light pollution will cut rates dramatically, so get out to a decent dark site.

For casual observing, it is not necessary to distinguish between Perseids and other meteors. If one is doing a formal count or pursuing a program such as the Astronomical League's Meteor Club, Perseids must be identified. The Perseid radiant is near Eta Persei, often drawn as the pointy head of the constellation. When a meteor appears anywhere in the sky, mentally prolong its path backward. If the backward extension of the path passes within a few degrees of Eta Persei, the meteor should be counted as a Perseid. A shoestring or other cord held up to the sky can aid in alignment. Perseids, except those seen near the radiant, tend to be fast-moving meteors, a consequence of their entry into the atmosphere at nearly 60 km/s. The brighter ones often leave glowing trains in their wake.

Since Perseids can appear anywhere in the sky, it is not necessary to look right at the radiant. When trying to identify Perseids, however, it is best to have the radiant somewhere within your field of view. Your field of view should also be centered high enough that it is not obstructed by the horizon.

It probably hasn't escaped anyone's attention that the Perseid peak happens on the morning of the first day of the 2004 Oregon Star Party. While the registration tent doesn't open until noon on Thursday, there are usually a number of early arrivals. In the past, it has been OK to arrive on Wednesday. Make sure to check for any added restrictions before you head out. It should go without saying that Indian Trail Spring at its best is an awesome place to view a meteor shower! Thursday night/Friday morning should still offer Perseid rates of up to 30-40 per hour.

*Esko Lyytinen, one of several people who had so much success in predicting the recent Leonid outbursts, says that there is also a good possibility for enhanced Perseid activity on August 11, due to the Earth's crossing of particles ejected from the Perseids' parent comet in 1862. This activity would occur during our daylight hours, and would favor observers in parts of Europe and Asia.

Observing Comfortably *(Continued from page 7)*

Star Diagonals for SCT's and Refractors

Since I observe with a Schmidt Cassegrain telescope (SCT), things like a star diagonal on both the main scope and the finder are a practical necessity. Your neck and back aren't being hyper flexed when trying to look straight through the scope. The image flop (left to right) can be a bit of a challenge for your brain to work out, with experience it becomes almost second nature. I still get confused from time to time, but that's usually because I'm tired, rushed or not paying attention.

Winter Clothing

Observing during the winter has its set of own challenges. First off it always seems to be raining. When it's not raining, then it's cold or muggy. During the rest of the year, it can be warm during the day and early evening, then turn colder as the night progresses. So having the right clothing is not only essential, it can also save you life.

Having enough clothing to dress in layers does help. If you know what the evening temperature is going to be for your observing site, you can pack your clothes accordingly. Usually for outdoor winter wear, cotton fabric is frowned on, since if it gets wet, it stays wet. You will get cold and miserable and run the risk of getting hit with hypothermia. Speaking from experience, it is not a fun thing to have happen to anyone. So stay with wool or man made fabrics if at all possible. If you can not go with wool, cotton is ok, as long as you keep it dry. Also include a wind shell over the outer layer, this really helps retain body heat while your standing still for a long period of time. Things like snowmobile suits, ski clothing all will work for you.

Working the telescope controls does present a problem in cold weather. You want to keep your hands and fingers warm but have the tactile control your fingers give you. Unless it is really cold out, I use wool fingerless gloves. For the most part they work very well. Just the end of my fingers poke out (like only the first or second knuckle) and except when I'm touching the metal of an eyepiece or the telescope, the hands stay fairly warm. Another type of glove that hunters use is a mitten / glove hybrid. The whole hand is covered with a mitten and there is a slit that allows the fingers and thumb to come out. Again just the fingertips are unprotected. Haven't tried those out yet, but they do look interesting.

One last item that doesn't get talked about, but it does become all-important after awhile, is that nature does call and you got to do something about it. So the other over ridding factor in winter clothing is how do you get to remove all those layers without freezing that part of your anatomy off? Well, the best I can politely offer is to try it out at home before going out in the dark and attempting to extract yourself from all those clothing layers.

Summer Clothing

In the winter, you can always put on more clothing, during the summer, you can only take so much off (any more and it's a whole new meaning for "Astronomy Buff"). Oddly enough, you still need to worry about colder weather, but lighter weight jackets and thick shirts usually help. If you are going to be observing at high altitudes, then you will worry about taking winter wear clothing.

Head and Foot wear

Keeping your head covered when it is cold out will keep your feet warm. Your head loses about 30% or so of your bodies heat output; your feet get the least amount of warmth. So covering one helps the other end stay toasty. For winter footwear, cold weather boots like Sorel arctic boots keep your toes quite warm.

For summer observing, as long as you are comfortable for the night temperature, then you should be fine. Again a head cover helps if you start getting chilly.

Food, Drink and Exercise

It is nice to have snacks and something to drink while observing. Keeps your energy level up, forces you to take a break now and then and gives you something different to do. During the winter, your body does burn more energy to keep you warm. Having something with high short-term calories does help – which is where candy bars help. For long term and sustained calories, proteins and carbohydrates work better. So rather than come up with all sorts of food ideas, I'll leave that up to the reader since we all have different dietary needs and wants.

If you have been sitting and observing for awhile, get up and move around, get your joints moving. If you are at a star party, walk and visit. Flex your major joints and stretch out as much as you are able.

Telescope Camping

All the things that you would take for "normal" camping are added on top of what you take for a "normal" observing session. Whether you take out your 50-foot land yacht or just set up a lean-to, camping with your telescope can be fun. You can travel to a truly dark sky site, visit another star party in another state or country or just go somewhere just for the experience.

If you have a computerized telescope, you'll need to worry about power for the scope. This is compounded if take things like laptops, CCD cameras and other power hungry devices. I can go for about three days with my SCT and a 17 amp-hour battery pack before my scope runs out of power. Having a way to recharge a battery either through a generator, solar panels or outlet means you can stay out longer. Depending on where you are staying, a generator might be prohibited. Solar panels are very nice and might be the best overall alternative, but are costly and finding a power outlet might be a challenge out in the back-country.

Anything Else?

You can try out checklists. If you find that you are forgetting pieces of equipment when you go to observe, writing up and using a list helps.

Keep your equipment clean and organized. I'm not too good at either, but I try to keep stuff in one location and try to inspect it at least once in awhile.

Reduce, simplify and eliminate. If you find that you are not using certain pieces of equipment, don't take it or maybe consider selling it. If your like me and don't have a whole lot of room to store your equipment, less is more.

The rest is pretty much up to you. Sharing what works for you always helps others. That's the nice thing about this hobby, people do like to share.

Be Kind, Renew on Time!

It's that time of year again, astronomy friends, to renew your membership with the Rose City Astronomers. As most of you are aware, we have a fiscal calendar year from July 1 to June 30th. If you are new to the club, you may have paid a pro-rated membership fee.

We begin a new fiscal year with the good news that dues will remain the same at \$24.00. This is a bargain for all the benefits available to you--as we are sure you are well aware.

How to renew? Checks or cash are accepted at the general meeting. Plenty of renewal forms available also. You may print the renewal form from the RCA website and mail it with your check (no cash in the mail, please). At this time we are unable to accept credit or debit card payments.

At the general meetings you'll find the friendly membership people, Doug and Carol Huston, at a table just inside the entrance of the OMSI auditorium. They're ready to receive your prompt renewal and answer any questions, too!



Future changes to the Oregon Star Party Chuck & Judy Dethloff

We will be stepping down as Directors of OSP at the conclusion of the 2005 OSP. The 2005 OSP will be our 18th consecutive year of working with OSP. We have greatly enjoyed seeing the progress and growth OSP has made over these years and believe it has much unrealized future potential. Our reasons for passing on the responsibility of the day to day running of OSP is that both of us want to have more time to pursue other interests and challenges for ourselves, both within and outside of astronomy.

We certainly hope to see the OSP continue on for many more years and will make every possible effort to not shut down OSP. This should be considered a positive change for OSP and one that would have to happen some day if the OSP is to continue on for many more years. It was certainly not an easy decision for us to come to, but one that we really needed to make for ourselves. We will continue to be an active part of OSP and are happy to continue serving as President and Treasurer in the foreseeable future.

Our decision does not impact the 2004 OSP. But someone does need to step forward to assist in organizing and running the 2005 OSP and to organize and run the 2006 OSP. We will of course be available to offer guidance and assistance when needed during this transition. It should be accepted though, that at the conclusion of the 2005 OSP someone else needs to be ready to take over our positions as Directors, or the OSP will not hold a 2006 star party. That means that someone really needs to step forward this fall. You don't have an entire year to think about it!

It is possible that a reallocation of some of the tasks that Judy and I have been responsible for will occur and that someone on the Committee will yet step forward into the Director's position. Though no one on the OSP Committee has yet committed to this. OSP also does not rule out a new Director emerging from the RCA, or an OSP attendee from outside the RCA for that matter. Our Committee is open to discuss all options though this position clearly does require one to make planning meetings in the Portland area.

At the very least, it is clear that OSP will need more dedicated help from other individuals that are motivated to keep the star party going beyond next year. Those of you attending OSP this year should ask yourselves if you can become involved in order to keep the star party going?

We very much hope that some of you are willing to step forward to offer your help in any capacity. In turn we will make every possible effort to allow for a smooth transition to occur so that the star party can continue on without missing a beat. If you are interested in helping to keep OSP going, please let us know your interests as soon as possible. You may contact us either at (503) 357-6163 or telmor@teleport.com.

We will keep RCA updated on this process as it goes along. In the meantime, we hope that all whom are attending this year's OSP have a wonderful star party!

Member Profiles

By Debra Smith-Hirshmann



Date: July 19, 2004 General Meeting
Name: Mike Clapp
How Long in RCA: About One Year
Number of Telescopes owned: One
Telescope most used: 4.5" Reflector
Observing site most used: Local backyard
Next observing project/challenge: OSP ??

Date: July 19, 2004 General Meeting

Name: Randy Heberle

How Long in RCA: 1.5 years

Number of Telescopes owned: Three

Telescope most used: 8" LXT Schmidt Cassegrain

Observing site most used: Front Yard

Next observing project/challenge: Get rest of Messier List. Has logged 35



Date: July 19, 2004 General Meeting

Name: Scott Hanawalt

How Long in RCA: Eight or ten years

Number of Telescopes owned: Two

Telescope most used: Meade Starfinder 16"

Observing site most used: Backyard

Next observing project/challenge: To get telescope out of garage



SPECIAL INTEREST GROUPS

ASTROPHYSICS / COSMOLOGY

Date/Time: Thursday, August 19, 7 PM.

Speaker/Topic: Julian Voss-Andreae, Bucky Balls & Quantum Mechanics

Place: Linus Pauling Complex, 3945 S.E. Hawthorne St., Portland.

Contact: Bob McGown (503-244-0078)
or Dareth Murray, (503-957-4499) for more information.

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

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

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August 2004

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 2004

Aug 2	Mon	RCA Board Meeting	OMSI Classroom 1	7pm
Aug 12	Thurs	OMSI Perseid Meteor Shower	Rooster Rock	Dusk
Aug 12-15	Thu-Sun	2004 Oregon Star Party	Indian Trail Springs	Thu-Sun
Aug 14	Sat	RCA Star Party	Larch Mountain	Dusk
Aug 16	Mon	RCA General Meeting	OMSI Auditorium	7:30pm
Aug 19	Thu	Astrophysics/Cosmology SIG	Linus Pauling House	7pm

September 2004

Sept 6	Mon	RCA Board Meeting	OMSI Classroom 1	7pm
Sept 20	Mon	RCA General Meeting	OMSI Auditorium	7:30pm
Sept 23	Thu	Astrophysics/Cosmology SIG	Linus Pauling House	7pm

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>

The

Rosette Gazette

Volume 16, Issue 9

Newsletter of the Rose City Astronomers

September, 2004



RCA General Meeting A Tale of Two Transits! Transit of Venus 2004

Richard Berry, Bob McGown & Dareth Murray will share their adventures as they traveled the world to catch the Venus Transit of 2004. Richard Berry and his wife Eleanor participated in a transit expedition to Pasargadae, Iran to view the transit of Venus on June 8. The expedition included amateur astronomers from the USA, Canada, the UK, as well as France and Germany. In addition to the observing transit, they toured cultural and archaeological sites in Tehran, the Caspian Sea, Shiraz, & Esfahan. The photo shows their observing site located about 100 meters north of the tomb of Cyrus the Great, ruler of the Persian empire.



**Monday September 20
Social Gathering: 7 pm.
Meeting Begins: 7:30 pm.
Location: OMSI Auditorium**

(Continued on page 4)

In This Issue:

- 1... General Meeting
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..... President's Message
..... Magazines
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- 5... RCA Downtowners
..... Junior RCA
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- 6... Board Meeting Minutes
..... RCA Library
- 7... Fern Hill Thanks RCA
- 8... Comet Hyakutake
..... Telescope Workshop
..... Cosmology SIG
- 10. MDA Star Party
- 12. Calendar

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Hubble Deep Field above courtesy R. Williams (STScI), the Hubble Deep Field Team and NASA

Moon photos below courtesy David Haworth

CAMP HANCOCK FALL FLING DARK SKY STAR PARTY WEEKEND

Oct 15th 3pm - Oct 17th Noon, 2004

Registration Deadline is Saturday October 9th - Unless we reach maximum capacity earlier.
Go to "<http://larrygodsey.home.att.net/hancock>" for more information and a Registration Form.
Or see Larry at the September 20th meeting for information and a Registration Form

(Continued on page 3)

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

Last Quarter Moon
September 6, 8:11 AM. PDT

New Moon
September 14, 7:28 AM PDT

First Quarter Moon
September 21, 8:55 AM. PDT

Full Moon
September 28, 6:09 AM. 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	geometer@comcast.net
VP Observing	Matt Vartanian	(503) 244-5023	matt@vartanian.net
VP Community Affairs	Padraic Ansbro	(503) 349-3864	whiteowl@ansbro.com
VP, Communications	Matt Brewster	(503) 740-2329	m_brewster@juno.com
Treasurer	Ginny Pitts	(360) 737-0569	vepitts@comcast.net
Secretary	Ken Cone	(503) 292-0920	bjnkenc@hevanet.com
Sales Director	Sameer Ruiwale	(503) 681-0100	sameer_ruiwale@hotmail.com
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New Member Advisor	Carol Huston	(503) 629-8809	StarsCarol@comcast.net
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Alcor, Historian	Dale Fenske	(503) 256-1840	fenskedf@juno.com
Library Director	Jan Keiski	503-539-4566	jikeiski@comcast.net
Telescope Director	Jeff Henning	503-656-3041	j42h@aol.com
Media Director	Padraic Ansbro	503-349-3864	whiteowl@ansbro.com
IDA Liaison	Bob McGown	(503) 244-0078	bobmcgown@comcast.net
OSP Liaison	Dareth Murray	(503) 957-4499	darethlee@comcast.net
Camp Hancock Liaison	Glenn Graham	(503) 579-1141	the.grahams@verizon.net
Subscription Director	Margaret McCrea	(503) 675-5217	mmcrea@nwlk.com
SIG Director	Matt Brewster	(503) 740-2329	M_brester@juno.com
Youth Programs Director	Jenny Forrester	(503) 504-8070	jenny@theforrest.org

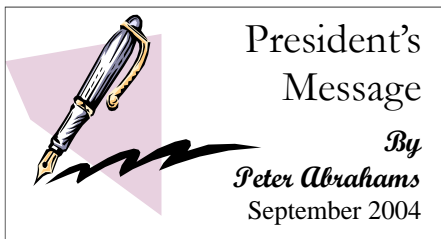


RCA MAGAZINE SUBSCRIPTIONS

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-oms.org/siteindex.htm>
 Then click on any of the magazine links. Margaret McCrea, 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.



President's Message

By
Peter Abrahams
September 2004

There is going to be some turnover among officers in the RCA in the next election cycle. I am going to take a new job on the board, 'Past President'. No one is dissatisfied, there are just situations where officers have other obligations and other things to do. In

addition, as has been announced, Chuck & Judy Dethloff will make the 2004 OSP the last one under their directorship.....after a very long run. Thus, RCA & OSP will both be needing an infusion of new volunteers in the upcoming months.

After 5 years as President, following 2 years as Secretary, I have mostly run out of pep rally speeches. I will simply state the case; that everything that RCA offers is a result of some volunteer taking time from their day to devote to RCA, and if we don't get a volunteer for that particular program, it will cease to be offered. There are legal requirements regarding a President & a Treasurer, and we won't function without a Membership VP; but most other officers are not essential, they are just very useful & very appreciated. We've never had to shut down a service, and I am sure we won't have to this time.....if you step up & volunteer.

I don't mean to give the impression of burnout; I have learned a lot from managing RCA, and I retain my feelings towards amateur astronomy -- I think it is one of the most rewarding & positive activities that a person can do. And the organizations that have formed around amateur astronomy are truly outstanding and helpful groups.

--Peter

Camp Hancock Fall Fling (Continued from page 1)

Oct 15th - Oct 17th, 2004

Camp Hancock is an OMSI sponsored field station for the promotion of science education. It is located about 150 miles from Portland and is 2 miles east of the John Day river in Eastern Oregon in the Clarno Fossil Beds. For maps, pictures, and more info go to the RCA web site or the OMSI Hancock web site.

Camp Hancock is NOT a resort hotel; it is a rustic kid's camp with 16 bunkhouses that sleep up to 14 people in A-frame buildings. The bunkhouses are one room with bunks, mattresses, limited electricity and heaters on a 60 minute timer. You will be sharing the bunkhouse with others.

Lodging:

The bunkhouses are not reserved, except by prior arrangement for medical necessity. Bring your own warm sleeping bag (it will be cold at night) and whatever else you need. Please inform Larry Godsey at larrygodsey@att.net or 503-675-5217, as soon as possible if you have special diet needs or have medical issues. One of the cabins will be set aside as a "ladies only" bunkhouse and one as a "men only" bunkhouse. The remaining bunkhouses are first-come and you will be sharing with others.

There is a limited area for Tents, RVs and trailers. We've been usually able to provide some limited electricity to most of the RVs and trailers, but bring your own power cord, and be prepared to be self sufficient in case there is not enough power available.

Meals:

Camp Hancock offers breakfast and a sack lunch (Saturday and Sunday), and dinner (Friday and Saturday). The meals are served family style and everyone is expected to help with setting up, clearing the tables and doing dishes. Breakfast is served at 9am Saturday and Sunday, with fixings put out for making a sack lunch at 10am both days. Dinner will be at 6pm on both Friday and Saturday.

Everything must be paid for with your registration before Oct 9th. Meals must be preordered and can NOT be purchased on-site. There are no refunds after Oct 9th.

Breakfast - 9am - is \$3.75 per person per day (Saturday & Sunday)

Sack Lunch - 10am - is \$3.50 per person per day (Saturday & Sunday)

Dinner - 6pm - is \$4.75 per person per day (Friday & Saturday)

RVs, trailers and Tents are \$8 per night per unit, not per person.

Bunks in the A-frame bunkhouses are \$14 per person per night.

Registration:

Mail-in registration and payment deadline is Saturday Oct 9th and there will be NO REFUNDS AFTER that date. We will cut off registration if we reach capacity of 100 people earlier.

There is more information on the web, including an order form you can fill out on-screen. The information, including pictures, downloadable Camp Hancock information, Clarno Fossil Bed information, driving maps and instructions, etc. will also be found on the web.

Go to "<http://larrygodsey.home.att.net/hancock>" for complete information and registration forms.

Or see Larry at the September 20th meeting, or you can call Larry at 503-675-5217 for information and registration.

RCA election notice.

The RCA nominations committee notifies the membership that nominations are being accepted for next year's board, for the following positions:

- President
- Vice President, Membership

In addition, we will require a new:

- Telescope Library Director. Jeff Henning informs his replacement that he will be available at all meetings to act as assistant.
- Photocopy Manager. Works at OMSI to copy our paper materials. And possibly another position.

Please contact the nominating committee:

Debra Smith-Hirschmann
reblwing@hevanet.com
503-652-1825

Bob McGown
bobmcgown@comcast.net
(503) 244-0078

Thank you,
Peter Abrahams, President

RCA Photo Gallery



IC 5146 (The Cocoon Nebula) This large faint nebula in Cygnus surrounds star cluster IC 5146. It is located at the end of a large dark nebula through the heart of the Milky Way. This LRGB image was taken on July 11th and 16th, 2004 from Forest Grove, OR using an ST-2000XM camera and a 10" RCOS Ritchey-Cretien OTA on a Losmandy G-11/Gemini mount.

Dave Sandage <twobones1@hotmail.com>



NGC 7023 (The Iris Nebula) A beautiful cloud of gas and dust surrounding a bright star. This LRGB image was taken 7/23 and 7/24 of 2004 from Forest Grove, OR using an ST-2000XM camera and a 10" RCOS Ritchey-Cretien OTA on a Losmandy G-11/Gemini mount.

Dave Sandage <twobones1@hotmail.com>

The RCA telescope workshop special interest group

was managed by Jim Girard for many years. His assistant, John Delacy, is willing to assume this job. Thanks very much, John. But, he is not able to attend all telescope making workshops. He needs a reliable assistant. Contact John if you can help. johncdelacy@comcast.net

The TM workshops will not continue without another volunteer. Any plans need to be coordinated with Dan Gray, owner of the shop where the workshop meets. grayarea@tms-usa.com

CLASSIFIED ADS



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

WANTED: As RCA members since the 1970's we ground a 6" reflector mirror at the old OMSI. We would appreciate anyone who may be able to help or provide an equatorial or Dobsonian mount. We have the tube, donated by RCA.

Thank you,
Warren & Helen Fleming
2482 SE Mulberry Dr.
Portland, OR 97267
503-654-3720



General Meeting (continued from page 1)

Bob and Dareth spent some time visiting the great observatories on the Canary Islands before meeting up with fellow RCA member Maurice Stewart in Lugano, Switzerland to observe the transit. Tenerife and La Palma have fantastic locations for telescopes, one being the William Herschel on La Palma. They were fortunate to tour that facility which is just as impressive as the Keck on Mauna Kea. Bob & Dareth decided to watch the ingress of Venus in Lugano, jump on the train and get to Zurich in time to see the egress and the Zurich observatory. It worked, as they crossed the Alps thanks to Switzerland's famous reliable trains.

Rose City Astronomers 'Downtowner's' Lunch

Join us on the first Friday of each month for lunch at the Great China Seafood restaurant (Holidays and such may push us to the second Friday of some months, check the calendar at <http://www.rca-omsi.org>).

Cost is \$6.50 for all-you-can-eat Chinese Buffet Lunch.

Great China Seafood restaurant

334 N.W. Davis, Upstairs on the 2nd floor

Great conversation and buffet lunch.

For more information contact: Margaret McCrea at mmcrea@nwlinc.com



Observing Site Committee

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.

Next Meeting: Monday, September 20, 2004—6:45 - 7:15 PM

OMSI Auditorium (prior to regular Club meeting)

Please Check <http://nemoworld.com/RCA/sitehome.htm> To Confirm and for more information.
or Contact: [David Nemo](mailto:david6366@msn.com) <david6366@msn.com>

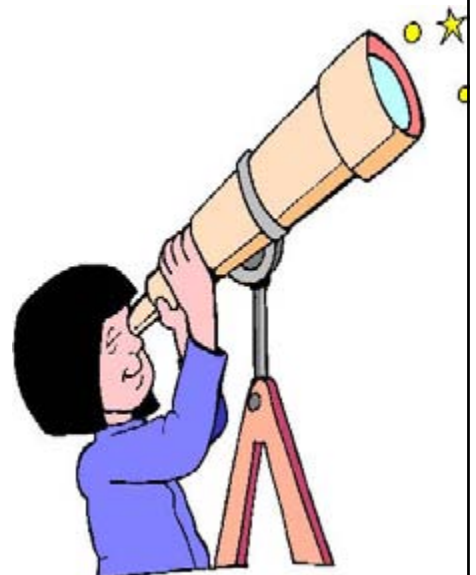
JUNIOR ROSE CITY ASTRONOMERS

JRCA is held during the summer months during the regular RCA meetings for kids age 5 through 12. If you'd like to attend (or your parents would like you to attend), please call Jenny at (503)286-4585 or e-mail me at jenny@theforrest.org to RSVP. This will make it easier for me to prepare for the JRCA meeting! If you can't RSVP or you forget, don't worry about it - come and enjoy JRCA anyway!

We will be studying the Laws of Physics through toys, interactive games, coloring sheets and other paper and pencil sheet. There will also be lots of information available for you to study astronomy on your own or with a friend. Standard classroom behavior is expected even though it takes place in the OMSI lunchroom.

We will also be discussing a possible trip to visit a hospital to bring some astronomy to children who are bed-ridden. This trip will be at least a two-step process - an orientation meeting and then the field trip. Parent involvement will be required for this, so please check with your parents first.

JRCA is also looking for volunteer teachers! If you're 13 or older and interested in helping kids learn about Astronomy, you'll have a wonderful experience working with kids ages 5 through 12 at the JRCA meetings. If you're interested, please call or e-mail Jenny.





BOARD MEETING

MINUTES

AUGUST 2, 2004
OMSI Classroom 1
Ken Cone

Present:

Peter Abrahams, Padraic Ansbro, Matt Brewster, Larry Deal, Jeff Henning, Carol Huston, Doug Huston, Jan Keiski, Bob McGown, Dareth Murray, Ginny Pitts, Deborah Smith-Hirshmann, Matt Vartanian

Treasurer – Ginny: \$11,036.36 in the funds. She will start a new account for the site committee funds.

Programming – Matt: The Mars Planetarium shows and Dave Kasnick from Nightsky 45 will be the program for August. Dr. Peter Ward from UW will be in September.

Membership – Doug: 396 member families, 143 attended the last meeting.

Star Parties – Matt V: August 12 - Perseid Meteors at Rooster Rock. August 14th at Larch. Sept. 10-11 will be at the Indian Trail Springs (ITS) for an RCA Dark Sky Party.

Community Affairs – Padraic: Gales Creek for Diabetes went very well. They are so happy with us they would like participation from RCA tomorrow night! Padraic will send out a notice to the list. Tammy Creel from BPA called re a star party on Bake Oven Road area. She is a city commissioner for Maupin. She also has suggestions for a site for the RCA. Padraic will forward her name to the site commission.

Sales – Sameer: Nominal

New Members – Carol: Nominal

Dark Sky Association – Bob: The IDA (via President of AL Robert Gent) has given us a CD with presentations on it in a variety of styles. Bob also gave a short report on the Astrocon 2004 conference he recently attended with Dareth.

AL – Dale: Nominal

SIGs – Matt B: Nominal

Magazines – Margaret Campbell-McCrea: Nominal

Editor – Larry D.: The Sept. issue of the Gazette is almost full!

Library – Jan: Nominal

YRCA – Jenny: Nominal

Webmaster – Dareth: Recommended that RCA become a sponsor for the Clear Sky Clock. It would be \$50 for one year. Bob McGown made a motion that RCA pay \$50 to become a sponsor for the Clear Sky Clock, Jeff Hennings seconded. Motion passed unanimously.

OMSI – Peter: Space Day 2004 went very well. RCA was represented as well as the Mars Society, Oregon L-5, NASA, etc. RCA members Dareth Murray, Bob McGown, Peter Abrahams, Ken Cone, Tammy Ross, Tom Nathe and others.

Peter also reported that John DeLacy would be willing to continue as assistant for Telescope Work Shop but if no one steps up to fill Jim Girard's place, the SIG will not continue.

Telescope Library – Jeff: He will continue as Telescope Librarian if no one else steps forward but his position is open. Bob McGown made a suggestion that the club divest itself of excess telescopes and only have about 6. This would make the position much easier to handle.

Copying – Deborah: She will no longer fill this position after 2004. She suggests that this position be an assistant to VP Membership.

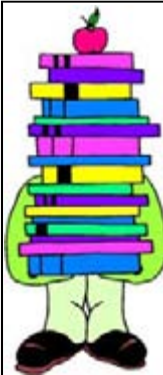
Phone line: - Dale Fenske will run the phone line for August. Matt V. will be on for September.

New Business

Nominating Committee: Ken Cone, Bob McGown, Deborah.

Some discussion about Kah-Nee-Ta vs Hancock for Messier Marathon. It was semi-decided that Kah-Nee-Ta would probably be the MM for next year (both Matt's in charge) and Hancock the following month (April).

Positions open for next year: President; Vice President Membership; Telescope Librarian.



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,

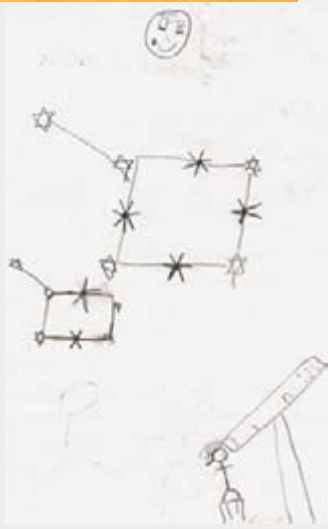
Jan Keiski (jikeiski@comcast.net)
503-539-4566

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



marzo 2004

FORN HILL ELEMENTARY SCHOOL
THANK YOU'S FOR THE
50TH PARTY.



Atentamente.
Jasmin

Alexi

Atentamente
Alejandra



Atentamente, de Johanna. Love Monica



A Farewell to Hyakutake

by Bob McGown

"I don't care about the naming of the comet. If many people could enjoy that comet, that is the happiest thing for me."

- Yuji Hyakutake, 1996

On January 30, 1996, Yuji Hyakutake in Japan discovered a new comet using 25x150 binoculars. The comet was designated Comet C/1996 B2 (Hyakutake). When subsequent observations were obtained, Brian Marsden from the IAU Central Bureau was able to compute the comet's orbital elements, and these computations indicated that the comet would pass as close as 0.10 AU (9.3 million miles, 150 million kilometers) from the Earth on March 25, 1996.

The comet was a bright naked-eye object and remained so in March, April and May in 1996. The comet had exceeded expectations, becoming the brightest comet since Comet West in 1976. Astronomers observed small fragments break off the main nucleus. David Levy called Comet Hyakutake the comet of the century. It is believed from calculations of the orbit that this comet was near Earth 8,000 years ago and will not return for another 14,000 years.



I observed the comet from the Oregon Coast range. At close approach, it appeared to be 10 degrees in width, over 100 degrees in length and had a eight bladed blue and purple tail. Using the law of cosines, I calculated the distance and length of the tail.

Yuji Hyakutake recently passed away at the age of 51. He was the discoverer of two comets. He discovered one in his youth and one in his late 40's. The Japanese astronomers called him the "Phoenix".

Left: Comet Hyakutake's Closest Approach

Credit and Copyright: Herman Mikuz, Crni Vrh Observatory, Slovenia
Image courtesy of NASA

Comet Hyakutake

By Bob McGown

In from Charon, a comet came sailing
Through the Oort cloud's shadowed snow
The comet's blue ion dust was darkening
Across the ecliptic, the disc was a halo

Night keepers - a thousand eyes search the sky
The Phoenix rising and Helios' well will send
Hyakutake focused outward, with a sigh
In the dark skies, saw a bladed tail to the end

With Fuji binos, he scanned from Japan
A comet reflected, like a million mile meteor
While holding a tattered star map in his hand
He viewed the comet and deep sky's encore

Yuji you have long a' waited
For this night's display to begin
Look to the sky, all who wonder
The observing night without an end

Sweeping the starry fields of night
Dancing dust reflected the cosmic shore
Behind the dawn, shimmering starlight
Comet found, he would ponder no more

Telescope Workshop

Date/Time: Saturday, September 25, 10:00 AM
- 3:00 PM

Place: Technical Marine Service, Inc. 6040 N.
Cutter Circle on Swan Island

Contact: John DeLacy
<johncdelacy@comcast.net> for more informa-

ASTROPHYSICS / COSMOLOGY SIG

Date/Time: Thursday, September 23, 7 PM.

Speaker/Topic: Micheal Meo "Not Just Galileo"

Place: Linus Pauling Complex, 3945 S.E. Hawthorne St.,
Portland.

Contact: Bob McGown (503-244-0078)

or Dareth Murray, (503-957-4499) for more information.

A SAMPLING OF TELESCOPES FOR THE AMATEUR ASTRONOMER

By John W. Siple

There is a huge amount of equipment, both new and used (some collectible), for the stargazer to choose from. Many instruments are multi-task in their function, although some pieces of astronomical hardware are distinct and serve a specific purpose in observing the night sky. For example, a Celestron Schmidt-Cassegrain can be used for visual observations of the Messier Objects, and a quick changeover converts it to a planetary and deep-space telescope that is camera ready.



The Edmund Astroscan, a 4 1/8" f/4.2 Richest-Field Telescope, has optics encased in a shock-resistant red plastic ball, making it an obvious choice for backpackers. Grandparents may find the construction to their liking, as it is built to withstand the prying hands of young children. Telescopically the 3° wide field allows the complete Sword of Orion (along with M42) to be seen in the same field of view with the supplied 28mm. RKE eyepiece, and this RFT is a logical choice for scanning large regions of The Milky Way.

Astroscan—current secondary market value \$100-150.

Far more sophisticated in design is the Unitron Model #114 60mm. f/15 (900mm. focal length) alt-azimuth refractor telescope. Unitron sold literally a ton of them, so many amateurs use this particular model on a regular basis. The mounting is easy to set up, has silky-smooth controls for altitude and azimuth, and the mahogany tripod folds up for easy transport to and from the field. The finely crafted tube and fittings make these an obvious choice for the collector, and they are designed to last many generations. A rotary eyepiece selector called the Unihex holds six eyepieces of the observer's choice. The longer focal length brings in close up views of Jupiter, where the two equatorial belts stand out prominently.

Unitron #114—current market value \$525-750, highly dependent upon condition and accessories present.



Carton Optical Company (COC) is a brand name synonymous with quality. The Model No. 619-A 60mm. f/15 equatorial refractor from the 1960's is supplied with a beautifully cast mounting, slow-motion controls, superior tube assembly and focuser with a quick-release finderscope, wooden tripod, and hardwood carrying case. As with all of the older Japanese imports, each accessory is of 0.965" diameter. Equatorial tracking allows for extended observations of bright deep-sky objects that show best in small refractors, such as the Pleiades and Beehive Cluster M44.

Carton Model No. 619-A—current secondary market value \$150-225; larger aperture Cartons bring much higher prices because of rarity.

The Sears Discoverer Model #6339-A (and similar models #6335 & #6344) 3" f/16 equatorial refractor was advertised from 1961 until 1974 for an average selling price of \$200. Acquired by Sears from Tower Instruments, numerous versions including a "Professional-type Motorized Observatory" were available. A mounting of almost unique form holds the gray-colored optical tube assembly (gold and light-blue were also the norm), and custom features include a 40mm. finderscope with wrap-around tube clamps and a removable focuser. Some but not all exhibit varying amounts of astigmatism, a result of improper centering of the crown and flint elements during manufacture. However, the telescope shown at right has a classic star test and is one of Sears' finest. Cassini's Division in Saturn's rings, the polar caps and dusky markings on Mars, and the outermost worlds of Uranus and Neptune are within easy reach.

Sears 3" Equatorial Refractor—current market value \$325-400.



Continued on Page 11

RCA MEMBERS SHOW THE STARS TO MDA CAMPERS!

Since 1955, MDA has provided summer camp experiences for youngsters with neuromuscular diseases by providing an unforgettable week at MDA Summer Camp. Campers generally say the week they spend at MDA camp is "the best time of our lives." The Columbia/Willamette Chapter of the Muscular Dystrophy Association camp program is held at Camp Arrah Wanna in Welches Oregon. The camping program offers a wide range of activities specially designed for children with limited mobility or who use a wheelchair, ranging from ages six to 21. This year RCA, through our volunteers was able to provide a Star Party opportunity for the campers. Although the skies turned cloudy the campers enjoyed talking about the telescopes, the stars and playing with the green



lazers. I would like to thank Tom Nathe and Blair Evans for supporting this event. You guys did a great job!

Special thanks go out to Jim Reilly who was the sole provider of the Archbishop Howard Star Party back in May. He handled 70 students and guests. The school commends him on his patience and knowledge. RCA would like to thank Jim for his efforts as well....thanks Jim!

About volunteering; RCA is a service oriented organization and it is represented by our

club volunteers. It is important that as a volunteer when we commit to an event we make every effort to show up and represent the club in a positive manner. Even if the weather turns ugly for a star party commitment we can turn to our other skills to engage, educate and entertain our hosts.



Our main hosts are usually students and parents with a genuine desire and interest in astronomy. With your help as volunteers we have the opportunity to feed the flame of that desire and share the excitement we ourselves feel for astronomy. Thanks to all who volunteer on a regular basis, we appreciate your efforts. Also, if you would like give volunteering a try you will be

surprised by the rewards you will receive by sharing your time and knowledge. Contact me if you are interested in any upcoming volunteer opportunities.

Padraic Ansbro – VP Community Affairs.



A SAMPLING OF TELESCOPES *Continued from Page 9*

The OPTICA b/c instrument represents the best of a class of heavily marketed 4-4.5" f/8-10 Newtonian Reflectors. The OPTICA b/c version is rare; the pier-mounted scope with motor drive sold for \$196.00 (with electric drive, \$271.00) in the mid-1960's, a very tidy sum back then, and few advertisements ever appeared for it in *Sky and Telescope* (see page 108 of the August, 1967 issue for details). Close though yet cheaper alternatives were Tasco's Model 11TE-5 and Orion's Space Probe 4.5" Reflector. OPTICA b/c telescopes are known for high standards of mechanical and optical excellence, and the 4" lives up to expectations (some of its competitors used mirrors that were definitely poor). Using a low power eyepiece the pictured scope gives a view that encompasses the entire Andromeda Galaxy along with its two companion galaxies M32 and M110. When scanning the skies at higher magnification the planetary nebulae NGC 6543 ("Cat's Eye"), NGC 6826 ("Blinking Planetary"), and NGC 7662 ("Blue Snowball") are easy to pick out.



OPTICA b/c Reflector—secondary market value approximately \$250-350. Much scarcer is the pier-mounted 6" telescope.



The mainstay of amateurs everywhere was the rugged RV-6, a 6" f/8 Newtonian, which was sold for many decades by Criterion Mfg. Co. of Hartford, Connecticut. Qualified observers have variously described the optical characteristics as between great and superb. The equatorial mounting is very sturdy with an encased electric motor drive. In this telescope the globular star clusters M13 and M5 start to resolve into individual stars, and many of the brighter galaxies with Messier numbers acquire a visual distinctiveness of their own. Jupiter displays a wealth of fine detail, and The Crepe Ring of Saturn is plainly seen.

Criterion RV-6 Newtonian—current market value \$400-600.

Representative of a tremendous number of Dobsonians being distributed throughout the world, the Coulter 8" f/4.5 holds its own with surprisingly good, lightweight construction and fine optics. The larger light-gathering power of this small "light bucket" brings into view the Veil Nebula (incredible vistas with an Oxygen OIII filter), and under dark skies The Herschel I List can be completed. Globular star clusters such as M22 in Sagittarius show as compressed layers of uncountable stars.

Coulter 8" Odyssey—current value \$200-250.



The orange-colored sandcast C-8 from 1980 is a world-class instrument. Older instruments are known for their superbly figured optical systems, and the primitive spur gear RA drive, though lacking in advanced internal electronics with periodic error correction that characterize today's Celestrons, can allow the observer to take publishable astrophotographs. A wide range of accessories are available to modify the basic instrument package, such as zero image shift focusers, off-axis guiders, and drive correctors. Most recently CCD technology records a world of digital images showing faint deep-sky objects in just a matter of minutes.

Celestron C-8—older orange models from the early 1980's bring \$425-700 or more, but the price realized is really dependent upon any extra photographic accessories included.



Oregon Museum of Science and Industry
 Rose City Astronomers
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 Portland, Oregon 97214-3354

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September 2004

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 2004

Sept 6	Mon	RCA Board Meeting	OMSI Classroom 1	7pm
Sept 20	Mon	RCA General Meeting	OMSI Auditorium	7:30pm
Sept 23	Thu	Astrophysics/Cosmology SIG	Linus Pauling House	7pm

October 2004

Oct 4	Mon	RCA Board Meeting	OMSI Classroom 1	7pm
Oct 18	Mon	RCA General Meeting	OMSI Auditorium	7:30pm
Oct 21	Thu	Astrophysics/Cosmology SIG	Linus Pauling House	7pm

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-oms.org>).

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

The

Rosette Gazette

Volume 16, Issue 10

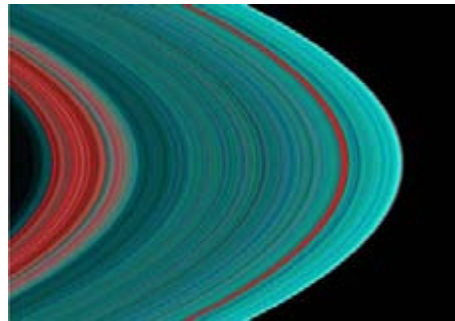
Newsletter of the Rose City Astronomers

October, 2004



“Those Stunning Rings”

On June 30, 2004, the Cassini spacecraft's nearly seven-year voyage to Saturn ended and a new chapter began when the spacecraft closed in on Saturn, slipped through a gap between its rings and sent back stunning pictures of the hundreds of bands that encircle the planet. The four year mission is composed of two elements: The Cassini orbiter that will orbit the ringed planet more than 70 times, and the Huygens probe that will dive into the murky atmosphere of Saturn's largest moon, Titan, and land on its surface.



Courtesy: NASA/JPL/University of Colorado



Courtesy: NASA/JPL/Space Science Institute

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- 2 .. Board Directory
 - President's Message
 - Magazines
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 - Camp Hancock S.P!
- 4 .. Member Profiles
 - RCA Elections
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 - Telescope Workshop
 - Cosmology SIG
 - RCA Library
- 7 .. The Observer's Corner
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- 9 .. OMSI Eclipse S.P.
 - Volunteer Needed
- 10. Star Party Report
- 12. Calendar

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Hubble Deep Field above courtesy R. Williams (STScI), the Hubble Deep Field Team and NASA.

Moon photos below courtesy David Haworth

In December 2004, Cassini will eject the Huygens probe beginning it's 22-day descent into Titan's cloudy atmosphere. Bigger than the planet Mercury and our own moon, Titan is of particular interest to scientists because it is the only moon in the solar system with its own atmosphere.

Three sets of parachutes will deploy to slow the probe and to provide a stable platform for scientific measurements. About two hours after entering Titan's atmosphere, the probe will land near the moon's equator. If Huygens survives the impact, the probe might be able to communicate with the spacecraft for a few minutes after landing on the frozen surface of Titan. Huygens will be the furthest human-made object ever to land on a celestial body.

Greg Cermak, our local NASA/JPL ambassador, will present an overview of this exciting mission for the Rose City Astronomers at the October general meeting of the RCA.

Monday October 18
Social Gathering: 7 pm.
Meeting Begins: 7:30 pm.
Location: OMSI Auditorium



Encircled in purple stratospheric haze, Saturn's largest moon, Titan, appears as a softly glowing sphere in this colorized image Courtesy: NASA/JPL/Space Science Institute

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

Last Quarter Moon
October 6, 3:12 AM. PDT

New Moon
October 13, 7:47 PM PDT

First Quarter Moon
October 20, 3:00 PM. PDT

Full Moon
October 27, 8:07 PM. 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	geometer@comcast.net
VP Observing	Matt Vartanian	(503) 244-5023	matt@vartanian.net
VP Community Affairs	Padraic Ansbro	(503) 349-3864	whiteowl@ansbro.com
VP, Communications	Matt Brewster	(503) 740-2329	m_brewster@juno.com
Treasurer	Ginny Pitts	(360) 737-0569	vepitts@comcast.net
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Telescope Director	Jeff Henning	503-656-3041	j42h@aol.com
Media Director	Padraic Ansbro	503-349-3864	whiteowl@ansbro.com
IDA Liaison	Bob McGown	(503) 244-0078	bobmcgown@comcast.net
OSP Liaison	Dareth Murray	(503) 957-4499	darethlee@comcast.net
Camp Hancock Liaison	Glenn Graham	(503) 579-1141	the.grahams@verizon.net
Subscription Director	Margaret McCrea	(503) 675-5217	mmcrea@nwindlink.com
SIG Director	Matt Brewster	(503) 740-2329	M_brester@juno.com
Youth Programs Director	Jenny Forrester	(503) 504-8070	jenny@theforrest.org



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-oms.org/siteindex.htm>
 Then click on any of the magazine links. Margaret McCrea, 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.



President's Message By Peter Abrahams October 2004

For a few years now, Jenny Forrester has led the kids' group, at RCA meetings, and at OMSI. My involvement with this group has mostly been just dropping in and enjoying it; though at OSP I gave a talk to them, definitely a different experience than addressing a group of adults; kids can be paying attention without looking

like they are. Or, they can be not paying attention and not feeling any obligation to do so.

Of course, kids grow up, or at least hopefully they do. It is an amazing experience to meet a pre-teen who knows a lot about astronomy and can rattle off the planets, constellations, stars, and background knowledge on them. Once we even had a kid, who has now grown up to be a superachiever grad student astrophysicist; though it is equally great to meet ex-kids who are now on their own in the larger world.

You can often read in astronomy magazines and web sites, that amateur astronomy is 'graying' and we need to worry about where the next generation of stargazers is going to be found. I don't agree with this view, or at least I have more realistic concerns to be worried about. I think a lot of the discussion is from magazines concerned about expanding their subscription base, to keep investors happy. Astronomy can be made more attractive to kids and teens, and that is worth doing. But viewing the sky is always going to be a contemplative activity, not as attractive as the video games of today or whatever teens did in earlier eras. Hormones don't have a lot to do with astronomy. As you get older, and presumably gain in experience and maturity, activities with a lot of depth but not as much speed, become more fulfilling. I personally didn't get seriously interested in astronomy until I was in my 30s and a parent. I regret this, and I wish I'd had someone to show me the sky when I was young. But my lack of interest didn't bode ill for amateur astronomy. Given the number of clubs, star parties, and telescopes sold; I am sure that amateur astronomy is doing better than ever. Peter

CAMP HANCOCK FALL FLING STAR PARTY WEEKEND

Don't wait, we still have lots of room left!

Oct 15th - Oct 17th, 2004

Registration Deadline Monday, Oct 9th - Unless we reach maximum capacity earlier.

No Refunds after Oct 9th

Mail in your registration now!

Information is available on the web and in last month's Gazette. The web site also has an order form you can fill out on-screen, pictures, downloadable Camp Hancock information, Clarno Fossil bed information, driving maps and instructions. Or call Larry at 503-675-5217 before October 9th.

We have negotiated with the camp management so that the lower telescope field (DBO Valley) is open to setup telescopes after 2pm on Friday, but we are not to enter the camp area itself before 3pm on Friday. This gives the camp crew time to get things setup for us and give them a short break after the kids leave before we inundate them again. So, please do not enter the camp area before 3pm.

Newsletter Editorial Guidelines

Here is a brief description of how to submit content for the RCA Newsletter and get the best results.

Copy:

If possible; we encourage all copy to be submitted as a Microsoft Word document, or equivalent. Copy sent as email tends to contain a lot of weird characters and hard returns for line breaks. All if this "trash" needs to be removed in the publication.

We further encourage writers to follow the writing techniques advocated in Robin Williams' (not the comedian) books entitled 'The PC/Mac is not a typewriter.' Typewriter-like habits such as pressing enter twice to separate paragraphs will be replaced with a single enter and the appropriate "space after paragraphs" settings.

Photos:

Photos should not be embedded in MS Word documents except as F.P.O's (for position only). Embedded photos tend to have very poor color depth and low resolution.

JPEG and TIFF with LZW compression are the favored image formats.

For the printed newsletter the images should be reproduced at 300 dpi. Lower resolutions tend to reproduce poorly in high volume printing technology. Most images are printed at no larger than 1/4 page size (3.63" x 4.88"). The image size should therefore be no less than 1089 pixels wide and no less than 1464 pixels high, bigger is better.

Permission:

If you use someone else's copy or photos, be sure you have permission to do so and give appropriate credit to the author/photographer. For examples, look at the lower left part of the Gazette front page where credit is given for the NASA photo header and the Moon photos in the footer.

Thank you,
Larry Deal.
RCA Newsletter Editor

The club wishes to thank Larry Godsey for his enormous donation of time and energy (along with a few bucks!) for the donation of astronomy equipment to OMSI's Hancock site. While we always receive some donation dollars at each Hancock Star Party, Larry's organization and fund-raising abilities transformed the donation into more than \$600. of equipment, ranging from bubble levels to eyepieces and nebula filter. Larry, many thanks for your hard work, enthusiasm and very smart purchases for Hancock.

Member Profiles

By Debra Smith-Hirshmann



Date: September 20, 2004 General Meeting

Name: Lee Roehrdanz

How Long in RCA: Two months

Number of Telescopes owned: One at present: Celestron 9.25 OTA with Losmandy G11 mount

Telescope most used: The one

Observing site most used: Back yard off of 2nd floor deck

Next observing project/challenge: CCD imaging

Date: September 20, 2004 General Meeting

Name: Thimmaiah

How Long in RCA: About Four Years (has only been in this country about 4.5 years)

Number of Telescopes owned: None, because he "is a very rich man; all my friends have telescopes!"

Telescope most used: Dave Powell's

Observing site most used: Ochoco, Camp Hancock, OMSI

Next observing project/challenge: Interested in everything



IMPORTANT NOTICE

It is now time for RCA Elections. Several elected Board positions and at least one appointed (non-elected) Board position will be available for the 2005 year. **This is your opportunity to make an active contribution to our group.** Nominations are now accepted for the following:

President: Brief summary of requirements*--must have prior service of one year on RCA Executive Board;

Vice President-Membership: Brief Summary of requirements*--must be RCA member in good standing for one year;

Just Added!

Vice President, Community Affairs: Brief description of responsibility: external communications liaison for events and education;

Media Director: (Note, this position is appointed, that is, a non-elected official, but extremely important just the same): Brief description of responsibility: coordination of publicity and PR.

* See RCA Constitution and Bylaws (available at RCA website) for additional position information.

What this means: Most of us are not eligible for President, but if you would like to be eligible one day, you can start with another position on the Board! In any case, the club needs all the help it can garner as it is a big job to keep the RCA focuser wheel turning. Please consider contributing your skills and energy now.

October General Meeting: Announcement of Candidates

November General Meeting: Voting

To Nominate or more info contact Deb, reblwing@hevanet.com; 503-652-1825; or any RCA Board member. Club Officer contact information is available on page two of each and every Rosette Gazette.

Rose City Astronomers 'Downtowner's' Lunch

Join us on the first Friday of each month for lunch at the Great China Seafood restaurant (Holidays and such may push us to the second Friday of some months, check the calendar at <http://www.rca-omsi.org>).

Cost is \$6.50 for all-you-can-eat Chinese Buffet Lunch.

Great China Seafood restaurant

334 N.W. Davis, Upstairs on the 2nd floor

Great conversation and buffet lunch.

For more information contact: Margaret McCrea at mmcrea@nwlinc.com



Observing Site Committee

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.

Next Meeting: Monday, October 18—6:45 - 7:15 PM

OMSI Auditorium (prior to regular Club meeting)

Please Check <http://nemoworld.com/RCA/sitehome.htm> To Confirm and for more information.
or Contact: [David Nemo](mailto:david6366@msn.com) <david6366@msn.com>



Messier M13 globular cluster

Camera: Nikon D70

Telescope: Orion Argonaut™ 150mm Maksutov-Cassegrain telescope, f/12 focal ratio, 1800mm focal length

Focal Reducer/Corrector (1800mm to 1440mm, f/12 to f/9.6)

Telescope Mount: Losmandy G-11

No guiding

David Haworth

<http://www.stargazing.net/david>



BOARD MEETING MINUTES

SEPTEMBER 13, 2004
OMSI Classroom 1
Ken Cone

Present:

Ken Cone, Dale Fenske, Carol Huston, Doug Huston, Jan Keiski, Sameer Ruiwale, Debra Smith-Hirshmann, Matt Vartanian. Greg Rohde was a member guest at the board meeting. Greg is on the site locations committee. In Peter's absence, Doug Huston chaired the meeting.

Treasurer – Ginny: nominal .

Programming – Matt: nominal

Membership – Doug: over 400 member families.

Stah Parties –Matt V: ITS last weekend, weather was good, some about 10 people (and one cow) attended.

Coming up: September 25th in OMSI parking lot and two star parties in October.

Community Affairs – Padraic: nominal

Sales – Sameer: \$351 August sales, this was a good month.

New Members – Carol: Has received requests for constellation identification class. Jenny, Carol & Doug will develop a beginners class. See gazette for details.

Dark Sky Association – Bob: nominal

AL – Dale: Dale will update AL with current membership data.

SIGs – Matt B: nominal

Magazines – Margaret Campbell-McCrea: nominal

Editor – Larry D: nominal

Library - Jan: A portion of the library budget will be used to purchase astro-imaging and telescope making books & videos for the library in memory of Jim Girard. A special "thank you" coupon for donations made to the RCA library will be unveiled at the October general meeting. It will be good for \$5 off merchandise in the club store.

YRCA – Jenny: nominal

Webmaster – Dareth: nominal

OMSI – Peter: nominal

Telescope Library – Jeff: nominal

Copying – Deborah: nominal

Phone line: - Matt V. will run the phone line for September.

Observing Site committee: nominal

Business: It is time again to elect new officers for the RCA board. Deborah will create a handbill for the September general meeting detailing the open elected positions for 2005.



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)
503-539-4566

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

Telescope Workshop

Date/Time: Saturday, October 30, 10:00 AM - 3:00 PM

Place: Technical Marine Service, Inc.
6040 N. Cutter Circle
on Swan Island

Contact: John DeLacy <johncdelacy@comcast.net> for more information

ASTROPHYSICS / COSMOLOGY SIG

Date/Time: Thursday, October 21, 7 PM.

Speaker/Topic: Bob McGown "Infrared Astronomy with open discussion"

Place: Linus Pauling Complex, 3945 S.E. Hawthorne St., Portland.

Contact: Bob McGown (503-244-0078)
or Dareth Murray, (503-957-4499) for more information.

We are looking for speakers to lead a discussion.

What is your favorite topic in Astrophysics or Cosmology? Let's talk about it! Call Bob at 503-244-0078 or email him: bobmcgown@comcast.net

CLASSIFIED ADS



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

FOR SALE: 16.5" Porthole glass blank & tool ground to F / 7. \$100 OBO
Please call: Bill Myres @ 509-427-4103

A dark, clear and moonless October sky can be the most spectacular of all in the northern hemisphere. Especially if you stay up all night to see the winter sky rise in the east before dawn. Imagine starting off the evening with the summer Milky Way nearly splitting the sky from north to south and then finishing with Orion nearing the meridian. This makes for a long night but most certainly a memorable one.

But assuming you stay up for only the first half of an October night, and you want to see something other than the highlights of the summer sky again, what other interesting objects are there to look at?

Cassiopeia is a great place to start. A good place to start is NGC 281, a combination open star cluster and emission nebula. The open cluster is a bit on the sparse side and not all that well detached from the general star field in this area, but the nebula itself can be well seen, especially with an OIII or UHC type nebula filter.

A small scope – say in the 80mm to 4” range - outfitted with such a filter and a moderate magnification of around 100x can give a pleasing view. Larger scopes show more of the nebula and its distinctive shape which reminds me of a smaller version of the North American Nebula. But NGC 281 is often called the Pac Man Nebula. Look for it about 3.5 degrees due east of Alpha Cassiopeiae, Shedir.

NGC 7789 is a magnificent but somewhat dim open cluster. Although its over all magnitude is listed at 6.7 its individual stars are on the faint side. Even so this makes for a lovely sight in any size scope at the proper magnification. At low powering a small scope you may see more of a hazy spot than individual stars, but bumping up the magnification will bring out the stars. Finding a magnification that shows this as an obvious cluster but also showing it in context to its surroundings gives the best view.

A large scope, or one with a very long focal length, may have difficulty getting a low enough power to fully enjoy this kind of view, but you will have a better view of the approximately 300 stars in this well detached cluster. A remarkable thing about 7789 is how well matched most of its members stars are in brightness as well as their rather even distribution throughout the cluster.

If you're under a very dark and clear sky you might want to try for two comet-like nebula that are right next to, and seem to point away from, Gamma Cassiopeiae (the middle star in Cassiopeia's "W" / "M"). IC 59 and 63 are two faint wisps of nebulosity so you might want try for them only when conditions are at their best. Clean optics and nebula filters are helpful, but can you spot them with no filters at all? Try putting Gamma just outside the fov to get the best view, but regardless they will be faint and difficult to see. This is something of a challenge so good luck.

Near the border with Cepheus is M52. This is a beautiful open cluster located in a terrific part of the northern Milky Way and is a good stepping off point for the Bubble Nebula, NGC 7635, less than a degree to its southwest.

M52 is a bright open cluster that's well detached from the local starfield. Although similar to 7789 in that the range of star magnitudes are rather similar, they are less so in M52 making for a splashy, beautiful sight in any size scope. Much like in M13, I see curved streamers of stars all through this cluster. Low to medium powers are best.

As easy as M52 is to see the Bubble Nebula is difficult. Placing M52 in the northeast edge of your lowest power eyepiece should put the Bubble within your field of view. Odds are you won't see it though, at least right away. This is one of those objects that looks great in photos but is either invisible or barely a smudge in the eyepiece unless you're looking through a really big scope. Even in a 20" the entire circle of nebulosity isn't visible. Try an OIII and UHC filter for best results.

A little south of this northerly neighborhood in Cygnus is NGC 7026. This is a small but interesting planetary nebula. Placed just a few minutes north of the star 63 Cygni in a brilliant star field, 7026 is easily overlooked at low power but it can be spotted by its aqua blue color. Look carefully and once located, zoom in with the highest power your scope and the conditions can manage. If it all comes together you can expect to see a true bi-polar planetary nebula – 7026 reminds me a hamburger seen from the side. Two bright, elongated streaks that look very much edge on galaxies are separated by a thin but distinct dark lane. The more power you can pile on the better this view gets. About 400x will be needed to get a good look at the bi-polar structure, so a fairly large scope –12" and up - will likely be needed so the image is still bright enough to see well.

NGC 281: open cluster and emission nebula. Cluster magnitude 7.4, nebula diameter 35 x 30 arc minutes. RA 0 hours 52.8 minutes, Declination +56 degrees, 37 minutes. SA 2000 chart 1, UA page 36.

NGC 7789: open cluster. Magnitude 6.7, diameter 15 arc minutes. RA 23 hours, 57 minutes, Declination +56 degrees, 44 minutes. SA 2000 chart 1, UA page 35.

IC 59 and IC 63 (collectively called Sharpless 185): emission and reflection nebulae. 10x 5 and 10x 3 arc minutes in size. RA 0 hours, 56.7 minutes, Declination +61 degrees 4 minutes. SA 2000 chart 1, UA page 36.

M52: Open cluster. Magnitude 6.9, diameter 12 arc minutes. RA 23 hours, 24.2 minutes, Declination +61 degrees, 35 minutes. SA 2000, UA 34.

NGC7635: emission nebula, 15 x 8 arc minutes in size. RA 23 hours, 20.7 minutes, Declination + 61 degrees, 12 minutes.

NGC 7026: planetary nebula. Magnitude 10.9, diameter 21 arc minutes. RA 21 hours, 6.3 minutes, Declination + 47 degrees, 51 minutes. SA 2000 chart 9, UA page 85 (and the cover of Volume 1).

A SAMPLING OF TELESCOPES FOR THE AMATEUR ASTRONOMER—PART 2

By John W. Siple

The Unitron Model #142 3" f/16 (D=75mm. F=1200mm.) Equatorial Refractor was first offered to the astronomical community in June, 1952 for \$435 (the price remained constant throughout the 1950's and 1960's). Parts came from Nihon Seiko Kenkyusho, Ltd. of Tokyo, Japan which were then imported into this country under the brand name of Unitron and in Europe/Australia with a Polarex label. Built to last and handsome in appearance, Unitron refractors are highly collectible. John Mallas of "The Messier Album" fame popularized the 4" version (his observations were made with a pier-mounted Model #166). Model #142 is the basic "bare-bones" instrument, adding an electric RA motor drive ups it to a #142-C, and the Photo-Equatorial version is dubbed #145-C. In the circa 1958 3" telescope the famous double-double star Epsilon Lyrae is cleanly split into its four components, and the sharp optics pick up festoons and other cloud features in Jupiter's atmosphere.

1950's era Unitron Model #142—current secondary market value \$1200. Those from 1960-90 in excellent or better condition with accessories are worth \$1600-1700.



Packing a greater light-gathering and resolving power punch is the VERNONscope, Inc. 94mm. f/7 Brandon apochromatic refractor from 1987-1991. Both a white and "baby-blue" OTA could be purchased, and since only 500 were manufactured, it is a privilege to be the owner of one. The triplet objective lens from Astro Physics, Inc. is housed in components supplied by Nihon Seiko, thus giving Brandon apo's the appearance of a short-tubed Unitron refractor. A plethora of matching items were offered by the distributor, such as a modified Unitron alt-azimuth mounting and a wide selection of eyepieces and star diagonals. Astrophotographers love the wide, flat fields with pinpoint star images and great color correction, while world-travelers appreciate the portability and versatility of this finely crafted scope. The 3 million light-year distant "Pinwheel Galaxy" M33 in the constellation Triangulum is sharply demarcated against a background of stars, and the entire Messier Album is within easy reach.

VERNONscope, Inc. Brandon 94mm. f/7—current market value \$1200-1500.

Of an entirely different configuration is the relatively rare Meade 10" f/6 Research Series Newtonian of 1979-85. Initially offered to the amateur astronomer for \$1285, the big 10" Research Series Reflectors sport oversized transportable equatorial mounts with piers, a rotating ring system for convenient focuser placement, and highly corrected mirror systems. Shown is Meade's Model #1060 (also sold were their Research Grade Scopes #880 8" f/6 and #1266 12.5" f/6). The mountings are favorites of astrophotographers and refractor buffs as they are very stable, the essence of taking long exposures, and massive enough to carry up to 16" reflectors and 6-8" f/15 refractors. The Meade 10" resolves NGC 2158, the companion star cluster to M35 in Gemini, into a myriad of 13-14th magnitude suns, and the globular cluster M15 in Pegasus reveals its true character and "breaks-up" into thousands of resolved points of light.

Meade 10" Research Series Reflector—current secondary market value \$1500.





Total Eclipse of the Moon. Wednesday, October 27, 2004

A total eclipse of the full moon happens on Wednesday evening, October 27, when the sun, earth, and moon align and the moon moves through the earth's shadow and grows dark. Anyone in North America will be able to see the eclipse, weather permitting. It begins at moonrise for Pacific NW observers, with maximum eclipse occurring at a very convenient 8 p.m. This eclipse is total, and the moon will darken substantially about two hours after it rises. OMSI and Rose City Astronomers Club 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!

The event is free and open to the public. Potential star gazers are encouraged to call 503.797.4610 after 3:00pm on October 27 for possible cancellation due to inclement weather.

Eclipses happen in stages as the moon moves through different parts of the earth's shadow. This eclipse is already in progress when the moon rises as seen from the West Coast. From Portland, the moon rises due east at 5:56 p.m., P.D.T., which is also the moment of sunset. At that time, the moon is within the penumbra, the light outer part of the earth's shadow, but it looks undimmed. The moon moves deeper into the earth's shadow as it rises higher, and it begins to move into the umbra, the dark inner part of the shadow, at 6:14 p.m. At that time, the left edge of the moon darkens visibly.

During the next 69 minutes, the moon grows dimmer as it moves deeper into the earth's shadow. At 7:23 p.m. the moon moves completely into the inner, umbral part of the earth's shadow and totality begins.

The moon is totally eclipsed from 7:23 p.m. until 8:44 p.m. During this period the full moon will look unusually dark and somewhat reddened in color. The best time to look is around mid-eclipse at 8 p.m.

Totality ends at 8:44 p.m., when the moon begins to move out of the umbra and its upper left edge brightens. During the next hour and a quarter, the moon moves progressively farther out of the dark part of the shadow and more of the moon becomes lit. At 9:53 p.m. the moon leaves the umbra. The eclipse is essentially over, but the moon does not exit the penumbra until 11:02 p.m.

Eclipse Timeline (P.D.T.)

5:56 p.m.	moonrise (from Portland)
6:14 p.m.	moon begins to enter umbra
7:23 p.m.	totality begins
8:04 p.m.	mid-eclipse
8:44 p.m.	totality ends
9:53 p.m.	moon leaves umbra
11:02 p.m.	moon leaves penumbra

It is not necessary to use a telescope to view the eclipse, although binoculars or a low-power telescope will enhance the color. The moon will appear reddened, and this reddish color comes from sunlight that is refracted around the edge of the earth and onto the moon and from dust in set atmosphere.

Announcement of RCA Volunteer Opportunity

The following RCA appointed (non-elected) position is now available:

Information Services

This position works closely with the Vice President of Membership and the Board of Directors to coordinate printed materials for a variety of RCA needs (i.e., new member, general membership, educational and administrative). Brief summary of requirements, including but not limited to:

- a couple of hours per month availability during business hours;
- computer;
- basic office skills helpful.

For more information contact Deb: reblwing@hevanet.com; 503-652-1825

Public Star Party Trip Report

Maupin, Oregon. Saturday September 4, 2004

By: Tom Nathe

The party was hosted by Tammy Creel of the United States Bureau of Land Management (BLM).

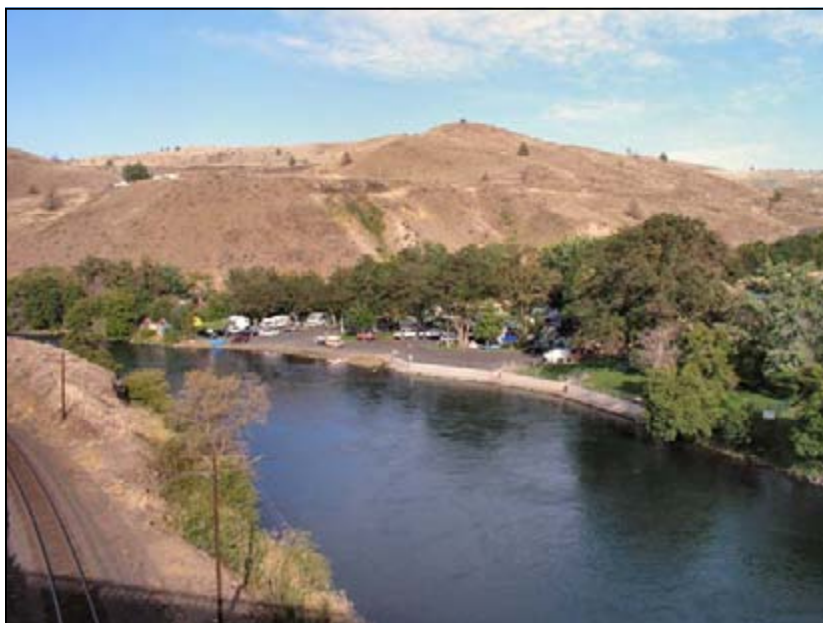
Except for a downpour between Multnomah Falls and Cascade Locks, the three hour trip (about 140 miles) to Maupin was uneventful.

If you like to raft, Maupin (<http://www.maupinoregon.com/>) is the place to be. Several different tour operations offer all sorts of trips down the Deschutes River, or if your up to it, you can rent a boat and do it yourself. A BLM permit is needed however to launch your craft. However, I was there to stay dry and show off the universe to whomever you want to look.

I had made prior reservations at the Oasis Resort. For \$15, you can reserve a spot at their private campground (<http://www.deschutesriveroasis.com/campground.html>) or take a chance at the Maupin City Park campground (run by the BLM - first come, first served).



Let's Par-tay at the Compound!



View of Maupin City Park, the BLM compound is just above the Park

After checking in and setting up camp, I drove over to the BLM visitor center and met up with the host, Tammy Creel. Tammy is the Lower Deschutes River Interpretive Specialist. She took me over to the observing site that's about half way up the canyon at the BLM equipment compound. The site isn't too bad, with about 15 degrees or so of the lower horizon cut (the base of the Sagittarius was some 10 degrees above the horizon) off from view. Not quite as bad as the eastern and western views from Hancock. Tammy was really great, she had me fill out a travel voucher so that my gas, lodging and dinner would be paid back by the BLM.

I had a few hours to kill, so I went back to camp, read a bit (made crib notes for the upcoming observing session) and hiked around a bit. Lots of little "Quickie Marts" that cater to the rafting crowd and a few restaurants too. The Party was scheduled for 9pm, so a little before 7, I went and had dinner and by 8, I was up at the Compound setting up my equipment and getting ready for the

night. The view from the bluff overlooking the river and city park was awesome, including an incredible sunset. Luckily, the clouds disappeared and the earlier stiff breeze died before it got any darker and the seeing started to improve.

One thing I did wrong was set up my scope too close to the edge of the bluff. The light pollution from the park as well as several of the businesses got in the way of looking through the eyepiece. Next time, set up the equipment about 75 feet away from the bluff's edge.

Tammy showed up at around 8:30 and brought along several chairs for folks to relax in and opened up the maintenance shed in the compound, so that the restrooms would be available. By 9 PM, people were showing up and kept coming up till 10:30 - 11:00 PM. In all we had about 20 to 25 people showed up, mostly locals.

(Continued on page 11)

Maupin Star Party *(Continued from page 10)*



What a sunset! And one of the worst sources of local light pollution.

The people had a blast of course. Since I have a "goto" SCT, I had to explain its operation several times and really wowed the visitors with my green laser pointer. We looked at M13, Alberio, M31, M57, lots of satellites, several meteors and general constellation identification. One woman, while using my binocular mount, was just scanning the sky and stumbled across M31. Should of heard her gasp at that one! One thing I'm glad I did was to write up some general notes. People have a hard time wrapping their brains around astronomical distances. So having how many miles there are in a light minute and how far the observed objects are.

After the people had left, Tammy thanked me for being there and said next year, if we could get more club members to attend, she would certainly work on getting the Criterion Ranch parking lot (10 miles south of town) set up for a night of viewing. Porta-potties and better notification to the campers of the star party.

Things that went well:

The wind died down and the clouds went away

Just the right number of people showed up - Tammy ran crowd control and I did the show and tell.

The Compound location while not perfect, is useable for general viewing (and is close in).

Good curious people.

Got paid for my travel, lodging and a meal. Yippee!

Things that could have been better:

Lots of bright lights down in the canyon. Move the equipment further back from ledge.

Handouts for the people - what they are looking at, basic astronomical information.

Personal Gripes:

There were at least two trains that chugged their way 200 yards from the campsite. Also, my particular campsite was right next to the highway. Earplugs would have been nice.

Other Observations:

Takes about as long to drive to Maupin as it does to Klondike.

Criterion Ranch would be a nicer location, if we can get more club members out there.

Be Prepared! Have notes handy if you are not sure of your facts. People want to know and know that you don't know everything, but at least know what it is that people are looking at.

Have fun! Go ahead and describe M13 as a dirty looking spitwad on a blackboard to kids.

Be Patient and Forgiving. Don't take your Naglers if you are worried about fingerprints on the eyepiece. Take your cheaper eyepieces.

Oregon Museum of Science and Industry
 Rose City Astronomers
 1945 SE Water Avenue
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October 2004

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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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 2004

Oct 4	Mon	RCA Board Meeting	OMSI Classroom 1	7pm
Oct 18	Mon	RCA General Meeting	OMSI Auditorium	7:30pm
Oct 21	Thu	Astrophysics/Cosmology SIG	Linus Pauling House	7pm
Oct 30	Sat	Telescope Workshop	Swan Island	10am—3pm

November 2004

Nov 1	Mon	RCA Board Meeting	OMSI Classroom 1	7pm
Nov 15	Mon	RCA General Meeting	OMSI Auditorium	7:30pm
Nov 18	Thu	Astrophysics/Cosmology SIG	Linus Pauling House	7pm

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>

The

Rosette Gazette

Volume 16, Issue 11

Newsletter of the Rose City Astronomers

November, 2004



2004 RCA November General Meeting

Peter Abrahams

Presents

The Prehistory of the Space Telescope

The first telescopes in space were preceded by the idea of a telescope in space. Imaginative authors wrote about them, and engineers designed them. The earliest telescopes to achieve space, the rocket launched suborbital missions, both successes and failures, will be described, along with the effect they had on science and culture. Every success can be seen to have had a direct effect on the widening of horizons provided by the telescope.



Monday November 15
Social Gathering: 7 pm.
Meeting Begins: 7:30 pm.
Location: OMSI Auditorium

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Hubble Deep Field above courtesy R. Williams (STScI), the Hubble Deep Field Team and NASA.

Moon photos below courtesy David Haworth

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

Last Quarter Moon
November 4, 9:55 PM. PST

New Moon
November 12, 6:26 AM PST

First Quarter Moon
November 18, 9:51 PM. PST

Full Moon
November 26, 12:08 PM. PST



Club Officers			
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SIG Director	Matt Brewster	(503) 740-2329	M_brewster@juno.com
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* Pending election at November general meeting.



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-oms.org/siteindex.htm>
 Then click on any of the magazine links. Margaret McCrea, 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.



President's
Message
By
Peter Abrahams
November 2004

It is a cloudy October day as I write this, a good time to think about astronomy on the internet or in books

A 'new' Milky Way globular cluster was discovered, in Aquila, by the IR Spitzer Space Telescope, search for their web site & under 'press releases',

is the story. Undiscovered globulars are not necessarily small or faint, they are hidden behind the Milky Way.....but visible in infrared. The 2MASS survey has been imaging the sky in IR for a few years now, (<http://www.ipac.caltech.edu/2mass/>). When they looked for this 'new' globular in the 2MASS images, it was quite visible, in 3 different wavelengths. It was not 'discovered' because no one looked at these images. As it happens, this globular was actually named during an IRAS survey, as 'IRAS 18462-0133', but labeled an object of unknown type. The logical conclusion is that there are more to be found, probably many more, by a dedicated sleuth.

Although the 'new' globular was not named in the press release, it is common or usual for the discoverer to name it. Possibly there were too many co-authors in this case. It is referred to elsewhere as 'Glimpse 01'.

If you want to make a significant discovery, and get to name something really big; at far greater odds than comet searching, you can search these 2MASS images most efficiently using 'virtual observatory' software like Sky-view (<http://skyview.gsfc.nasa.gov/cgi-bin/skvadvanced.pl>)

- Peter Abrahams

Astronomy Basics – Astronomical Coordinates

By Dave Sandage

There are many ways to find objects in the sky. Many of us use star atlases and finders to hop from star to star, following a pattern that we have either memorized or just made up after looking at a chart. This is called star hopping. Sometimes however, an object is listed in a catalog or ephemeris using a set of numbers known as the object's coordinates. What are these, and how can we use them? This article will look into these coordinates – what they mean, and how to use them.

Right Ascension and Declination

Just as any location on Earth can be described by its latitude and longitude, positions in the sky can be described by a set of coordinates known as Right Ascension (abbreviated RA) and Declination (abbreviated Dec.). RA and Dec. are the celestial equivalents of longitude and latitude, and are actually closely related.

Imagine a globe of the Earth with lines of latitude and longitude drawn on it. Now, extend those lines out from the globe to the imaginary celestial sphere on which are placed all the objects in the sky. Directly above the poles of the Earth are the celestial poles, and directly above the terrestrial equator is the celestial equator. The star Polaris lies very close to the north celestial pole. Declination is easy since it exactly corresponds to latitude, measuring the angle between the celestial equator and the celestial poles. Just as lines of latitude run parallel to the equator and go from 0° at the equator to 90° at the poles, so do lines of declination. Declination values are measured in degrees, minutes and seconds (or decimal minutes) and are positive when north of the equator and are negative when south of the equator. Thus, a star at 46 degrees 12 minutes 42 seconds south of the celestial equator is said to have a Dec. of -46° 12' 42".

Right Ascension is analogous to longitude, measuring angles east and west. And, like longitude, RA needs an arbitrary zero-point. While the zero-point of longitude is Greenwich, England, the zero-point of RA is that location in the sky where the Sun crosses the celestial equator on its way north in the spring (also called the first point of Aries). However, unlike longitude, RA is measured in hours, minutes and seconds (or decimal minutes) from 0h 0m 0s through 23h 59m 59s. RA values increase as you move east of the first point of Aries. Note that because the Earth is rotating to the east on its poles, lines of constant declination remain in constant positions on the sky, but lines of constant RA move from east to west in the sky during the night. We'll look at this in more detail later in the article.

So, the coordinates of an object might look like 16h 42.9m +38° 55' 12" which means 16 hours 42.9 minutes east of the first point of Aries and 38 degrees 55 minutes 12 seconds north of the celestial equator. If you entered those coordinates into your GoTo scope, you'll find yourself looking at M13 in Hercules.

Precession

While most stars, galaxies and other deep sky objects do not move relative to each other in any kind of time frame we can notice, their RA and Dec. coordinates do change slowly over the years. This is because the coordinate system is based on the poles and equator of the Earth. In addition to rotating on its axis once a day and orbiting the Sun once a year, the Earth's axis is precessing like a top once every 26,000 years taking the RA and Dec coordinate system with it.

This is why RA and Dec. coordinates always have a date associated with them, called the Epoch or Equinox of the coordinates. Most sources now use Epoch 2000 coordinates (abbreviated J2000.0), meaning that the RA and Dec. values were correct on Jan 1, 2000. In order to accurately point a telescope at an object whose J2000.0 coordinates are given, a precession calculation must be applied to determine the RA and Dec. values for the current date.

Most GoTo telescopes accept coordinates for the epoch of the current date. That is, they assume that precession calculations have already been made. Some telescopes also allow you to specify that you are entering J2000 coordinates, and the telescope will precess them before moving the telescope. In practice however, the difference between J2000 coordinates and J2004 coordinates is not significant for casual viewing.

(Continued on page 4)

Astronomical Coordinates (Continued from page 3)

How the Sky Moves

If you have spent any length of time outdoors looking at the stars, you've probably noticed that everything in the sky shifts position over time during the night. Of course this is due to the fact that the Earth is rotating on its polar axis. Recall that the celestial poles in the sky lie directly above the Earth's poles, so just as the Earth rotates around its poles, the entire sky appears to rotate around the celestial poles, completing one revolution in about 24 hours. Objects that lie close to the poles make small circles around the pole, while objects further from the pole make larger circles, taking them below the horizon for periods of time during their revolution. So, although an object's RA and Dec don't change during the course of a night, a fixed telescope aimed directly at a point on the meridian (the imaginary line passing directly overhead from north to south) would see stars drift through it from east to west as increasing RA values cross the meridian. It is important to understand that a fixed telescope points to a constant Dec. value, but a changing RA value.

There is another coordinate system – one that does not move with the rotation of the Earth. Because it does not move relative to the Earth, it can be used to describe a telescope's position relative to the Earth. It uses the same Dec. value as does the rotating system to measure angles north and south of the poles. But instead of RA, the so-called "Hour Angle" is used to measure angles east and west. It too is measured in hours, minutes and seconds (or sometimes just minutes), but uses the meridian as its zero point. An object in the east has a negative hour angle. This value is interpreted as the number of hours it will take for the object to arrive at the meridian. If it is due east, its Hour Angle (abbreviated HA) will be -6h, meaning it will need 6 hours to arrive at the meridian. Objects in the west have a positive hour angle, indicating the number of hours the object is past the meridian.

Using Coordinates

OK, so how does one make use of all of this coordinate information? There are several ways. The most obvious is that if you have a GoTo telescope, you can simply enter the RA and Dec. of an object into the telescope and tell it to point there. This is useful for comets and asteroids, since they do change position from night to night and you'll need to get a listing of coordinates for them customized to the time you'll be observing.

Some telescopes have setting circles, either analog or digital. These tell you the RA and Dec. coordinates of where the telescope is currently pointing. By moving the telescope so that the setting circle readings match the object you are trying to find, you should be able to get the telescope fairly close.

Finally, you can use an object's RA and Dec. to look it up on a star chart. Most charts have an RA/Dec. grid, so by simply plotting the object's position on the chart, you can see where it lies in relation to surrounding stars, and plan a star hop to it.

So, whether you have a hand-moved telescope, one with setting circles, or a fully computerized telescope, you can make use of an object's published position and find it with ease. Clear skies!



California Nebula (NGC 1499) in Perseus
Imaged Oct 10,11,12 at Marieth in Central Oregon
FSQ 106N and STL 11000
Ha/R:G:B 90/90:45:72 min
CCDOPS, StellaImage III, MaxIm, Photoshop.

Photo by Michael Cole.

See more of Michael's newest images on page 11.

Rose City Astronomers 'Downtowner's' Lunch

Join us on the first Friday of each month for lunch at the Great China Seafood restaurant (Holidays and such may push us to the second Friday of some months, check the calendar at <http://www.rca-oms.org>).

Cost is \$6.50 for all-you-can-eat Chinese Buffet Lunch.

Great China Seafood restaurant

334 N.W. Davis, Upstairs on the 2nd floor

Great conversation and buffet lunch.

For more information contact: Margaret McCrea at mmcra@nwl.com



Observing Site Committee

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.

Next Meeting: Monday, November 15—6:45 - 7:15 PM

OMSI Auditorium (prior to regular Club meeting)

Please Check <http://nemoworld.com/RCA/sitehome.htm> to confirm and for more information.

Or Contact: [David Nemo](mailto:david6366@msn.com) <david6366@msn.com>

Member Profiles

By Debra Smith-Hirshmann



Date: **October 18, 2004 General Meeting**

Name: **Jeff Sponaule**

How Long in RCA: **Four years give or take**

Number of Telescopes owned: **Four: Celestron C11; Celestron C8; 12" Hardin Dob; 3.5" Orion Mak.**

Telescope most used: **Celestron C8**

Observing site most used: **Backyard (Bull Mountain), but OSP is his favorite**

Next observing project/challenge: **Image large Magellanic Cloud with own CCD in New Zealand; also is going to South Wales star party.**

Date: **October 18, 2004 General Meeting**

Name: **Matthew Wilson**

How Long in RCA: **Today!**

Number of Telescopes owned: **Two: 10" Dob; Orion ED 80mm refractor**

Telescope most used: **Dob**

Observing site most used: **Jeff Sponaule's backyard; Has been trying out lots of new places**

Next observing project/challenge: **Imaging with digital camera and ED 80**





BOARD MEETING MINUTES

October 4, 2004
OMSI Classroom 1
Ken Cone

Present: Peter Abrahams, Ken Cone, Dale Fenske, Carol Huston, Doug Huston, Jan Keiski, Bob McGown, Dareth Murray, Ginny Pitts, Greg Rohde, Deborah Smith-Hirshmann, Matt Vartanian

Treasurer – Ginny: \$11,966.48 in our accounts.

Programming – Matt: nominal

Membership – Doug: 227 member families renewed for this year with average of 140 to 150 per meeting.

Star Parties – Matt V: Last star parties of the year: Oct 9th at Chuck and Judy Dethloff's, Camp Hancock is Oct 15th, and OMSI Lunar Eclipse is Oct 27th.

Community Affairs: Padraic resigned from this post. RCA board is looking to fill this position, contact one of the board members if interested. Bob McGown will do a moon seminar at Bolton elementary in West Lynn.

Sales – Sameer: \$. nominal

New Members – Carol: Putting together class in constellations for new members.

International Dark Sky Association – Bob: Will bring “good” examples of “bad” lighting to next RCA meeting. Redmond OR has no street lights and residents with telescopes do observing in their back yards!

AL – Dale: Sent new roster to AL for 2005. Also see RCA web site for current AL awards list (Messier, Herschel etc.)

SIGs – Matt B: Telescope making SIG under John DeLacy, and Cosmology under Bob McGown both doing well. See Gazette for meeting times.

Magazines – Margaret Campbell-McCrea: nominal

Editor – Larry D: nominal

Library – Jan: nominal

YRCA – Jenny: nominal

Webmaster – Dareth: Paid annual web provider bill to easystreet.

OMSI – Peter: nominal

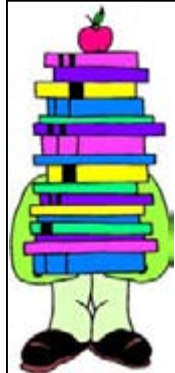
Telescope Library – Greg Rohde: Greg is the new telescope librarian

Copying – Deborah: nominal

Phone line: - Dareth will run the phone line for October and Bob for November.

Observing Site committee: checking out areas south of Dufur (in the gorge).

SPECIAL NOTE: The board has three open positions: VP Membership, VP Community Affairs, and Copy Manager. Please contact any board member if you are interested. Any RCA member can attend the RCA Board meeting on the first Monday of the month in OMSI Classroom 1, 7pm.



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)
503-539-4566

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

Telescope Workshop

Date/Time: Saturday, November 20, 10:00 AM - 3:00 PM

Place: Technical Marine Service, Inc.
6040 N. Cutter Circle
on Swan Island

Contact: John DeLacy <johncdelacy@comcast.net> for more information

ASTROPHYSICS / COSMOLOGY SIG

Date/Time: Thursday, November 18, 7 PM.

Speaker/Topic: All Attending “Round Table, bring your favorite topic”

Place: Linus Pauling Complex, 3945 S.E. Hawthorne St., Portland.

Contact: Bob McGown (503-244-0078)
or Dareth Murray, (503-957-4499) for more information.

We are looking for speakers to lead a discussion. What is your favorite topic in Astrophysics or Cosmology? Let's talk about it! Call Bob at 503-244-0078 or email him: bobmcgown@comcast.net



**OREGON STAR PARTY
2004**
Photos by Jan Keiski



“Clearly Canadian” The Desert Skies of BC

by Bob McGown

On vacation in Canada, Dareth Murray and I had the opportunity to view the rare triple crescent event from Jack & Alice Newton's Observatory B&B in Osoyoos, British Columbia. With Jack's LX200 16" telescope, it was a treat observing the planets during the day. Mercury and Venus were horned crescents while the Moon was just a sliver seen through some high cirrus clouds. Jack has imaged some incredible photos of the sun and enjoys observing with his guests in the morning after breakfast, taking advantage of the clear Canadian desert skies. Viewing on the following morning, we split some double stars before turning to Saturn. The Cassini division was very distinct



But I get ahead of myself. Upon arriving in Osoyoos, we checked in with Jack & Alice who told us to come back before 9 p.m. for the presentation in the theater with observing afterwards, depending upon the weather. We decided to take a drive up to Mt. Kobau to check out this famous summer star party site. The 6,000+foot mountain was the original site for the Canadian National Observatory until a change of government policy put the funding into the Canada-France-Hawaii (CFH) telescope atop Mauna Kea. After a 20-kilometer dusty drive, we found the view of the valleys surrounding mountain breathtaking, especially with an extremely colorful sunset lighting the hills and peaks beyond.

The following day we explored the Dominion Radio Astrophysical Observatory (DRAO) located in the hills near Osoyoos. This observatory has an impressive array of antennae used for radio astronomy research. The giant 26-meter disk is used to study the distribution of gas in the Milky Way and has been used with interferometry with the equipment at Jodrell Bank in England. Within the observatory fences in a T-formation is a retired radio telescope of 1,300 meters with countless supports and wires. This device was used for a study done at the 13.5m wavelength.

On a 600-meter raceway system laid out in an east-west configuration is a new aperture synthesis radio telescope consisting of seven dishes, each 9-meters in diameter. It is used to image wide field pictures of the radio sky. A large-scale project under development at DRAO is the Canadian Large Adaptive Reflector (CLAR). CLAR is a prototype of how the Square Kilometer Array (SKA) could be built



Solid center of dish shields black body radiation

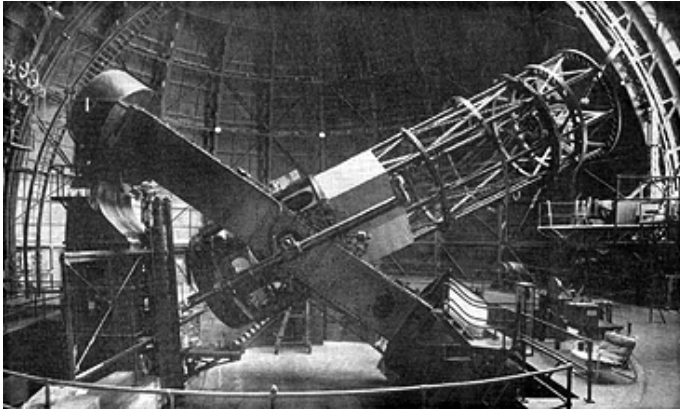
The platform would form an almost flat computer-controlled reflecting surface with an airborne focus platform supported by an aerostat - a large helium-filled balloon. The balloon's position would be moveable which would change the direction of the 300-meter reflector by means of six tethers. The reflector, when finished, would consist of 6,525 5-meter lightweight triangular steel panels. There will be 11-meter actuators that will move the panels up or down. The SKA is a joint effort between Canada, the United States, Australia, Europe and India to build a steerable radio telescope about 100 times larger than anything now in use.

(Continued on page 9)

“Clearly Canadian” *(Continued from page 8)*

That same evening, burning the candle at both ends, we watched Jack image IC742 in the constellation Triangulum. Using his blink comparison software, he confirmed a possible super nova candidate and phoned it in. It was exciting to be there and see direct evidence of extreme event in the universe.

On the way home from Canada, we stopped by my cousin's house in Spokane to research and recover some historical photos and documents of Mt. Wilson Observatory. I had known that my Great-Uncle, Frank Leon Drew, was an engineer at Mt. Wilson between 1909 to 1916 during the construction of the classic observatory. But what I didn't know was that he worked with George Ritchie, who was in charge of the optical work on the 100" mirror.



Great Uncle Drew, who I called "Grandpa Drew", was supervisor of the design of the 100" Hooker telescope, for 31 years the largest in the world. I also found out that Great Aunt Mary (Drew's wife) was a mathematician ("computer") working at Mt. Wilson, long before the days of super computers! I come by my love of observatories and astronomy naturally.

Our experience at Jack & Alice's B&B Observatory and the DRAO, as well as the lush vineyards and warm lakes in the Okenagan valley will draw us back for future visits. It also is refreshing to note that Jack

& Alice are vigorously collaborating with the town to create dark-sky regulations to preserve the desert skies of their corner of British Columbia. After seeing Jack's presentation on his Arizona Sky Village, we also look forward to a trip to the Village and seeing the progress on the International Space Station Amateur Telescope (ISSAT) which is located there.

Six Inch Cave Optical Mirror To Be Sold For Charity

RCA member Bob Zimmerman passed away about a year ago, and among his stuff was a very early mirror, by Cave Optical (made by Tom Cave's father). It is a 6 inch mirror, signed (scratched) on the back, in script: M-641 Cave Optical Co. FL 42 f7 Aug 1956 It appears to be unused. I am selling this for Sue Zimmerman, who is putting the money into a charity fund in Bob's memory.

I have the mirror but am just a 'middleman', and the check will be written to Sue. I am totally unsure how much this might sell for on Ebay or Astromart. My obligation is to get as much as I can, but without feeling obliged to work real hard at it. Right now, I am saying that selling on ebay or astromart is more time than I want to spend; and I hope there is a local person who would be interested. We can discuss the price, which I will guess is between \$200 and \$350. I am listening to all offers.

Peter Abrahams, <mailto:telscope@europa.com>, or see phone number on page 2.



A Summer Vacation Tracking Down UFOs

Erin Schumacher's summer job for NASA was to look for UFOs. Erin is a 16-year-old high school student from Redondo Beach, California, attending the California Academy of Mathematics and Science in Carson. She was one of ten students selected to work at NASA's Jet Propulsion Laboratory (JPL) in Pasadena as part of the Summer High School Apprenticeship Research Program, or SHARP.

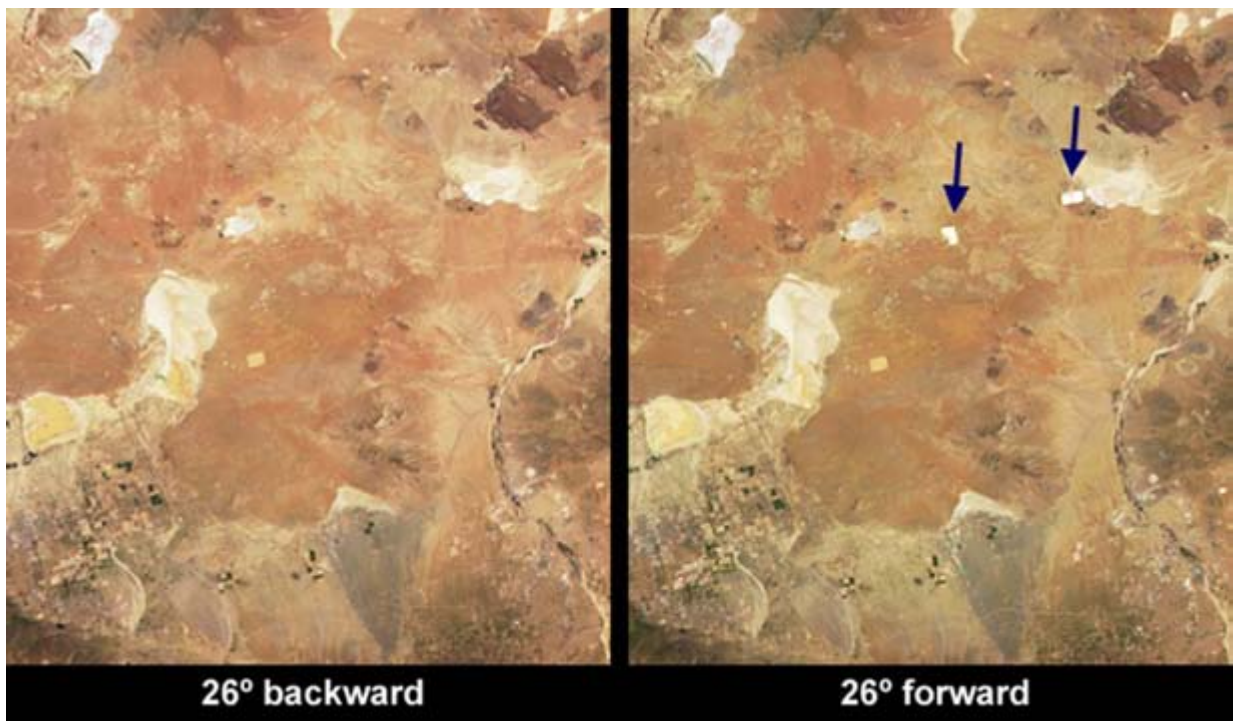
But is studying UFOs a useful kind of NASA research? Well, it is when they are "unidentified flashing objects" that appear in certain images of Earth from space. Erin worked with scientists on the Multi-angle Imaging SpectroRadiometer (MISR) project to track down these mysterious features. MISR is one of five instruments onboard the Earth-orbiting Terra satellite. MISR's nine separate cameras all point downward at different angles, each camera in turn taking a picture of the same piece of Earth as the satellite passes overhead. Viewing the same scene through the atmosphere at different angles gives far more information about the aerosols, pollution, and water vapor in the air than a single view would give. Ground features may also look slightly or dramatically different from one viewing angle to another.

Erin's job was to carefully examine the pictures looking for any flashes of light that might be visible from just one of the nine angles. Such flashes are caused by sunlight bouncing off very reflective surfaces and can be seen if a camera is pointed at just the right angle to catch them. Because the satellite data contain precise locations for each pixel in the images, Erin could figure out exactly where a flashing object on the ground should be. Her job was then to figure out exactly what it was that made the flash-in particular, to see if she could distinguish man-made objects from natural ones.

When Erin began working at JPL, scientists on the MISR project had already identified two large flashes out in the middle of the Mojave Desert in Southern California. These turned out to be from solar power generating stations. Soon, Erin began finding flashes all over the place. She learned how to apply her math knowledge to figuring out how the objects would have to be oriented in order to be seen by a particular MISR camera. One time, she and a team of MISR scientists and students went on a field trip to the exact locations of some flashes, where they found greenhouses, large warehouses with corrugated metal roofs, a glass-enclosed shopping mall, and a solar-paneled barn. For some flashes, they could find nothing at all. Those remain "UFOs" to this day!

Learn more about SHARP at www.nasasharp.com and Earth science applications of MISR at www-misr.jpl.nasa.gov. Kids can do an online MISR crossword at spaceplace.nasa.gov/en/kids/misr_xword/misr_xword1.shtml.

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



Two cameras on MISR made these images of the same part of the Mojave Desert. The camera pointed at an angle of 26 forward saw the flashes from two solar electric power generating stations. These objects are nearly invisible at the other angle.

RCA Photo Gallery



H-Alpha image of the Bubble taken this month from my backyard in Lake Oswego.
Scope: Astro-Physics 130MM F6
Mount: Astro-Physics 900-GTO
Camera: SBIG ST10XE
9 Images, 20 minutes each, H-Alpha filter, acquired and combined in Maxim, enhanced in Photoshop.
Terry Johnson



Rosette Nebula (NGC 2244) in Monoceros
Imaged Oct 10,11,12 at Marieth in Central Oregon
FSQ106N and STL 11000
Ha/R:G:B 90/90:45:72
CCDOPS, StellaImage III, MaxIm, Photoshop
Michael Cole

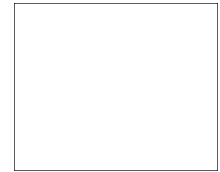


North American and Pelican Nebulas (NGC 7000 and IC 5070) in Constellation Cygnus
Imaged Oct 10,11,12 at Marieth, Central Oregon
Takahashi FSQ 106N and SBIG STL 11000
2x Mosaic each with Ha/R:G:B 90/90:45:72 min
CCDOPS, StellaImage III, MaxIm, Photoshop, Picture Window
Michael Cole

A word from Michael Cole.

The Rosette and North American Nebula images were taken at Marieth, my property in central Oregon. All RCA members have an invitation to visit this property. More info at: <http://home.earthlink.net/~urbanimager/index.htm>

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



NOVEMBER 2004						
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 2004

Nov 1	Mon	RCA Board Meeting	OMSI Classroom 1	7pm
Nov 15	Mon	RCA General Meeting	OMSI Auditorium	7:30pm
Nov 18	Thu	Astrophysics/Cosmology SIG	Linus Pauling House	7pm
Nov 20	Sat	Telescope Workshop	Swan Island	10am—3pm

December 2004

Dec 6	Mon	RCA Board Meeting	OMSI Classroom 1	7pm
Dec 20	Mon	RCA Holiday Potluck!	OMSI Auditorium	7:30pm

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>

The

Rosette Gazette

Volume 16, Issue 12

Newsletter of the Rose City Astronomers

December, 2004



In This Issue:

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 - Magazines
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 - Classified Ads
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 - RCA Library
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- 8 .. Calendar

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Hubble Deep Field above courtesy R. Williams (STScI), the Hubble Deep Field Team and NASA.

Moon photos below courtesy David Haworth

RCA General Meeting

Monday, December 20th, 6:30pm

Holiday Potluck and Open Microphone Night

In keeping with annual tradition, the December meeting of the Rose City Astronomers will be a holiday buffet and social gathering for all family members in the OMSI Cafeteria.

For entertainment, we're offering an RCA talent show. If you can sing, dance, recite poetry, tell a story, do a skit, twirl a baton, tap dance, crack jokes, or anything else even potentially entertaining, email Matt Brewster at <m_brewster@juno.com> or call Margaret McCrea at 503-232-7636 to sign on. We'll have a microphone and maybe an MC. Potential prizes if we get it together (awarded by acclamation). Extra points for astronomical themes. We're aiming for a Big Bang-up night - - call or email to join the fun.

Save time to shop at the RCA Sales Table for your favorite astronomy gifts.

Each member is asked to bring a dish to serve 10-12 people.

If your last name begins with . . .

Please bring:

A to L: Main Dishes

M to R: Appetizers/Side Dishes

S to Z: Desserts

Plates, silverware 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.

The Swap Meet will be back by popular demand. There will be ample empty tables around the room for everyone who is interested in displaying items for the Swap Meet. There will be excellent holiday deals!

If you have taken any astronomy pictures this year and want to share them, this is your ideal opportunity. Members also bring their latest in new "astro stuff." If you have a fun gadget/item/tool please bring it!

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

Last Quarter Moon

December 4, 4:54 PM. PST

New Moon

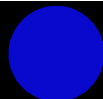
December 11, 5:28 PM PST

First Quarter Moon

December 18, 8:40 AM. PST

Full Moon

December 26, 7:07 AM. PST



Club Officers			
President	Carol Huston	(503) 629-8809	StarsCarol@comcast.net
Past President	Peter Abrahams	(503) 699-1056	telscope@europa.com
VP Members	Ken Hose	(503) 591-5585	khose@comcast.net
VP Observing	Matt Vartanian	(503) 244-5023	matt@vartanian.net
VP Community Affairs	Jeff Sponaugle	(503) 590-5522	jsponaugle@kryptiq.com
VP, Communications	Matt Brewster	(503) 740-2329	m_brewster@juno.com
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New Member Advisor	Jim Reilly		
Web Master	Dareth Murray	(503) 957-4499	darethlee@comcast.net
Alcor, Historian	Dale Fenske	(503) 256-1840	fenskedf@juno.com
Library Director	Jan Keiski	(503) 539-4566	jikeiski@comcast.net
Telescope Director	Greg Rohde	(503) 629-5475	gfrohde2000@yahoo.com
Media Director	Patton Echols	(503) 936-4270	mpecho@rdrop.com
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OSP Liaison	Dareth Murray	(503) 957-4499	darethlee@comcast.net
Camp Hancock Liaison	Glenn Graham	(503) 579-1141	the.grahams@verizon.net
Subscription Director	Margaret McCrea	(503) 232-7636	mmcrea@nwlk.com
SIG Director	Matt Brewster	(503) 740-2329	m_brewster@juno.com
Youth Programs Director	Jenny Forrester	(503) 504-8070	jenny@theforrest.org



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-oms.org/siteindex.htm>
 Then click on any of the magazine links. Margaret McCrea, 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.



President's
Message
By
Peter Abrahams
December 2004

At the end of 2004, there are four new members on the RCA board: Patton Echols, Ken Hose, Jeff Sponaugle, and Greg Rohde. Plus, we have Carol Huston willing to step in as

President at this time. And our long-time (but low key) quest for an observing site has finally found a committed manager in David Nemo, who is willing to follow through on the project, given sufficient commitment from RCA members. This is a very good state of affairs for a volunteer run organization, and hopefully those volunteers will find the job rewarding. There is definitely positive feedback from running RCA, partly from appreciative people, but more from being involved in, & at the focus of an activity like amateur astronomy. We hear from other groups, and from NASA, and from far-flung individuals who are involved in astronomy. Portland area groups & persons make themselves known to us. Even the IRS and the state of Oregon let us know they exist.....though for different reasons. Whatever aspect of amateur astronomy is of interest to you, there are others who share that interest, and it is very useful & rewarding to be in contact with them.

Peter

Galactic Surprise

by Patrick L. Barry and Dr. Tony Phillips

Open an old astronomy textbook. The basic sketch you'll find there of galaxy formation is fairly simple: a vast cloud of diffuse hydrogen and helium gas condenses under gravity, and dense spots in the cloud collapse to form stars. Voila! A galaxy.

But real galaxies are much more complex than that. A galaxy is a swirling "soup" of billions of stars and roaming black holes, scattered clouds of gas and dust, random flashes of star birth and exploding supernovas, and an unseen and mysterious substance called "dark matter." Over time, all these ingredients mix and interact—pulling and compressing and colliding—and somehow that interplay leads to the galaxies we see today. No wonder it's such a hard problem to solve!

Just over one year into its three year mission, GALEX is already shedding some new light on the problem.

"Some of the discoveries GALEX has made will change our understanding of how galaxies develop and when, where, and why stars form in galaxies," says Peter Friedman, a researcher at Caltech and Project Scientist for GALEX.

This small space telescope, called the Galaxy Evolution Explorer (GALEX for short), makes its discoveries by taking pictures of millions of galaxies scattered over the whole sky. Some of these galaxies are close by (at least by astronomical

standards of "close"), while others are as much as 10 billion light-years away. Because light takes time to travel through space, we see these distant galaxies as they appeared billions of years ago. Comparing young galaxies from the distant past with older, modern galaxies will teach scientists about how galaxies change over time.

Looking at these pictures, scientists were surprised to find many newborn stars in the outer parts of old, mature galaxies. Scientists had assumed that as a galaxy ages, the clouds of gas needed to form new stars in these outer reaches either got used up or blown away. Finding so many new stars in these regions of old galaxies (such as Centaurus A, Messier 101, and Messier 81) shows that, apparently, they were wrong.

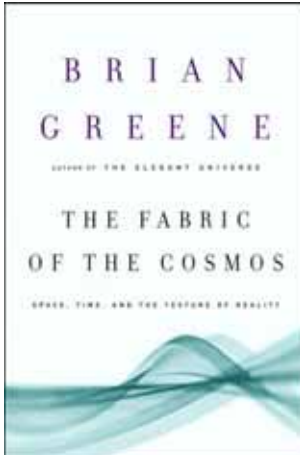
Friedman says that astronomers don't know yet how to explain these new findings. Rethinking and improving theories to explain unexpected discoveries has always been the way science makes progress—and GALEX is certainly making progress.

One thing is certain: It's time to re-write some old textbooks.

For more information, see <http://www.galex.caltech.edu/> . Kids can do a galaxy art project and learn more about galaxies and GALEX at <http://spaceplace.nasa.gov/en/kids/galex/art.shtml> .



M81 is 10 million light years away. The image on the left was made from GALEX data and shows UV light from hot, new stars. These star forming regions are not detectable in the visible light image on the right (McGraw-Hill Observatory, Kitt Peak, Arizona, Greg Bothum, Univ. of Oregon.)



The Fabric Of The Cosmos

Space, Time and The Texture Of Reality

Brian Greene

(Knopf, Random House, Inc. 2004)

536 pages, ISBN0-375-41288-3. \$28.95

I've always been fascinated by the nature of reality.

Particle physics – or at least my rudimentary understanding of the general theory – was what I was taught in school and seemed to be well on its

way toward describing the subatomic realm of reality.

Way over on the other side of the size scale, Einstein's theories of Relativity seemed to explain the physical world on very large scales. From time to time I've read magazine articles about how the mathematics of particle physics and relativity don't mesh at all when they're both used to explain black holes or the big bang. Since they both describe reality quite well in their own realms, why don't they work together better than they do?

Physicist Brian Greene attempts to explain why, and offers lucid explanations of the latest advances in theoretical physics that seek to meld the physics of the very small with the very large. This work may ultimately result in the much anticipated Theory Of Everything.

Before going any further into this review I want to be clear that I do not have a deep understanding of the new or old theories presented here, but even so find the broad brush strokes of this work to be incredibly interesting. Although this is not a technical book, it's not an easy read either simply because it will challenge you to think.

Written by Brian Greene, a trained physicist who has done serious theoretical work in this field, this book comes across almost as a travel guide because it takes a large overview, and adds specifics when they add to the narrative. He has previously written the excellent The Elegant Universe, which covers much of the same territory as this book, but The Fabric Of The Cosmos is the more up to date book, and one I think would be most appreciated by those primarily interested in astronomy and cosmology.

Mr. Greene writing style is accessible, engaging and well paced, and his explanations make use of easy to understand and contemporary analogies. For those interested in a bit more depth, he has an extensive notes section (141 pages worth!) and a handy glossary. There are

a good number of illustrations that are quite well done, but the size of the hardcover book renders them a bit on the small side. Even though small, they are often key in appreciating the points he's trying to make.

The main thrust of the book is to explain how Super String Theory, when expanded into the larger framework of the presently incomplete M-Theory, just might become the Theory of Everything. An ambitious goal to be sure, but at least in my case I've come away with a feeling of amazement and awe at what physicists seem to be on the verge of accomplishing with this work.

Super String Theory mathematically combines a theory of gravity with the other subatomic forces of the weak and the strong nuclear forces with the forces of electromagnetism we more familiar with in our everyday lives. M-Theory goes further by combining the different versions of Super String Theory into one, all of which just might be able to explain our universe from the smallest quantum fluctuation to the origin, evolution and structure of the universe.

In chapter 11, "Quanta in the Sky with Diamonds", Greens explains how the theory of inflation - which seeks to explain how space-time underwent a very short but enormously powerful and unimaginably fast burst of growth right after the Big Bang, and quantum mechanics, a theory of the very small - are intimately connected. He writes:

"According to inflation, the more than 100 billion galaxies, sparkling throughout space like heavenly diamonds, are nothing but quantum mechanics writ large across the sky. To me, this is one of the greatest wonders of the modern scientific age."

Read Brian Greene's The Fabric of the Cosmos for yourself to find out how this might be so, and savor the exquisite turn of human intelligence that has brought our knowledge so far. The final paragraph of the book brings full circle how astronomy can ultimately, and poetically, lead to a more fully realized and interconnected understanding of the deep physical laws of our universe.

I can guarantee that you won't look at the night sky in quite the same way after reading this book.

Rose City Astronomers 'Downtowner's' Lunch

Join us on the first Friday of each month for lunch at the Great China Seafood restaurant (Holidays and such may push us to the second Friday of some months, check the calendar at <http://www.rca-oms.org>).

Cost is \$6.50 for all-you-can-eat Chinese Buffet Lunch.

Great China Seafood restaurant

334 N.W. Davis, Upstairs on the 2nd floor

Great conversation and buffet lunch.

For more information contact: Margaret McCrea at mmcra@nwl.com



Observing Site Committee

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.

Next Meeting: Monday, December 13—7:30 PM

**Raleigh Hills McMenamins
4495 S.W. Scholls Ferry Rd.**

Please Check <http://nemoworld.com/RCA/sitehome.htm> to confirm and for more information.

Or Contact: [David Nemo](mailto:david6366@msn.com) <david6366@msn.com>

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Full thickness 12 inch Pyrex mirror blank (Willman-Bell)

Abrasives, Polishing Compound and Pitch for grinding and polishing mirror as follows:

- #60, #80, #120, #220, #320 and #500 Silicon Carbide Grit
- 12 and 5 micron aluminum oxide lapping power Some Red Rouge
- Pitch
- Micro-Facet Netting

Items for making the mirror grinding tool, including:

- Cera-Hex-Tol - hexagonal optical grade ceramic tiles
- 25 lb box of Rapid Set Cement All
- 3 ea. boxes of Super Mend 2 Part - 15 minute - Epoxy

Instructions for grinding a mirror, including:

- Grinding Your Own Mirror (20 page guide)
- Willmann-Bells "Mirror Making Secrets to Success"
- How To Make A Telescope by Jean Texereau
- A Guide To Build Truss Tube Telescopes by Randy Cunningham

Selling all for \$200

Call 503-657-4369 (leave message), or email: gene.schaffer@comcast.net

If interested, please let me know and I will bring to the December RCA meeting December 20th.



BOARD MEETING MINUTES

November 1, 2004
OMSI Classroom 1
Matt Vartanian for
Ken Cone

Present:

Peter Abrahams, Dale Fenske, Carol Huston, Jan Keiski, Bob McGown, Dareth Murray, Greg Rohde, Deborah Smith-Hirshmann, Matt Vartanian, Jeff Sponaugle, Ken Hose, Patton Echols, Larry Godsey

Treasurer – Ginny: \$17,148 in our accounts.

Programming – Matt: Speaker still uncertain, will know status soon.

Membership – Carol: 249 member families. Approximately 180 member families have not yet renewed.

Star Parties – Matt V: 2005 star party schedule 80% complete, need to coordinate with Jim Todd's schedule and reserve Hancock dates.

Community Affairs: nominal

Sales – Sameer: Sales had a very good month. Exact amount not available.

New Members – Carol: Helped new member/student with astronomy related project.

International Dark Sky Association – Bob: Will bring new hardware to next meeting. Met with various city personnel. New issue is being raised with Mercury vapor lamps relating to the noise they emit and how it impacts wildlife.

AL – Dale: AL awaiting email info for new board members.

SIGs – Matt B: nominal

Magazines – Margaret Campbell-McCrea: nominal

Editor – Larry D: nominal

Library – Jan: nominal

YRCA – Jenny: nominal

Webmaster – Dareth: Website migrated to Easystreet non-profit server. Now pay \$105 and have more disk space.

OMSI – Peter: nominal

Telescope Library – Greg Rohde: discussed issues related to storage of scopes at OMSI.

Copying – Deborah: no appropriate replacement found yet. Alternatives discussed.

Phone line: - Bob McGown

Observing Site committee: nominal

SPECIAL NOTES:

Carol states that current quorum is 9 voting members. 9 voting members are in attendance.

Larry Godsey presents proposal that left over money from Hancock event, \$223.75, be spent on astronomy equipment for the Hancock astronomy program rather than be sent directly to OMSI. Equipment includes Tripod for 8" Celestron, Eyepiece Case, Power cord for Celestron scope, 12mm Eyepiece. Proposal approved by board.

Peter moves and Dareth seconds a motion that Jeff Sponaugle be appointed to fill out Community Affairs VP position for remainder of year, and that he be nominated to run for Community Affairs VP position for 2005. Motion carried.

Carol moves and Dareth seconds a motion that Ken Hose be appointed to fill out Membership Director position for remainder of year, and that he be nominated to run for Membership Director for 2005. Motion carried.

Dareth moves and Peter seconds motion that Patton Echols be appointed as Media Director. Motion carried.

Slate of elected officers for 2005

Carol Huston – President

Ken Hose – VP of Membership

Jeff Sponaugle – VP of Community Affairs

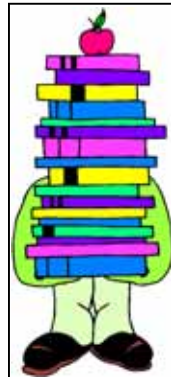
Matt Brewster – VP of Programming

Matt Vartanian – VP of Observing

Ginny Pitts – Treasurer

Ken Cone – Secretary

Peter moves and Dale seconds motion to allocate \$100 to Larry for reimbursement of expenditure for reinstatement of articles of incorporation. Motion carried.



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)

503-539-4566

Visit the RCA library web page at:

<http://www.rca-oms.org/library.htm>

A SAMPLING OF TELESCOPES FOR THE AMATEUR ASTRONOMER—PART 3

By John W. Siple

One of Tasco's more unusual telescopes, the #19T Observatory Self-Storing (REG. NO. 2350, D=60mm. F=800mm., 320X) was sold from 1972-79. Tasco telescopes of the 1960's and 1970's are rapidly becoming collector's items as people realize the quality materials and superior optics used in their construction. Montgomery Ward, a Chicago-based retail store chain founded in 1872 by "consumerist, environmentalist, and entrepreneur" Aaron Montgomery Ward, began carrying the #19T in October, 1972 (list price \$119.99) until it was dropped from their catalogue in 1976 (at \$169). The telescope is described on page 617 of the Fall/Winter, 1972 catalogue as:

"Revolutionary NEW design cuts set-up time by 2/3 and occupies less space when in use. 400-power refractor telescope has pedestal-type stand, which adjusts to 54". You can sit or stand. Entire tele-scope can be stored inside the pedestal. It's all there when you want to set up fast..."

The waning third quarter moon is a favorite target, where the 93 km. diameter crater Copernicus (a relatively "new" impact at less than a billion years old) and the 32 km. wide Kepler form a striking duo on the lunar surface.

Tasco #19T Observatory—secondary market value \$160-170.



Unitron's Model #140 3" f/16 (D=75mm. F=1200mm.) Alt-azimuth Refractor was first introduced to the astronomical community in April, 1953 for \$265 and is far less common than the slightly smaller, heavily advertised 60mm. version. Revered by Unitron collectors because of its portability and craftsmanship, the #140 boasts 115 times the light-gathering power as the human eye and a resolving power of 1.5 seconds of arc. Unitron objective lens quality is known to be excellent, and the 3" doublets have exceptionally smooth figures and color correction that rival those made from exotic ED glass. The clarity of the glass provides for stunning views of star fields and even simple eyepiece designs, such as Huygens and Ramsdens, give satisfying views of the moon and planets. The globular star clusters M10 and M12 in Ophiuchus along with M92 in Hercules are partially resolved into swarms of sparkling stars.

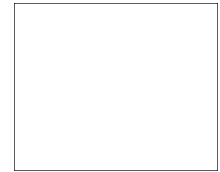
Unitron 3" f/16 Alt-azimuth Model #140—secondary market value \$900-1100. An accessory rotary eyepiece selector called the Unihex is worth \$140-160 by itself. A rarer Duetron double-eyepiece viewer brings \$225-300.

Meade's Starfinder DS-16 f/4.5 Equatorial Reflector (early 1982-present) is used by dedicated amateur astronomers who like to look at "faint-fuzzies" (and it works great on bright Messier Objects, too). The Meade 16" is one of the few large ingeniously designed non-Dobsonians that can be effectively transported to a dark-sky site (many serious amateur astronomers place them in home observatories). Optically the huge 16" f/4.5 mirror performs flawlessly, where spiral structure is evident in numerous "face-on" galaxies such as M51 in Canes Venatici and M101 in Ursa Major. Prominent "Rift Galaxies" (galaxies seen edge-on where the dark material in the spiral arms appears as a single dominant central bisecting lane or streak) represented by the "Sombrero Hat Galaxy" M104 in Virgo, NGC 891 in Andromeda, and NGC 4565 in Coma Berenices span majestically across the field of view of a Nagler 20mm. eyepiece.

Meade DS-16 Starfinder—secondary market value \$1600-1900 (shown with optional wooden cradle for tube rotation).



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



December 2004

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 2004

Dec 6	Mon	RCA Board Meeting	OMSI Classroom 1	7pm
Dec 20	Mon	RCA Holiday Potluck!	OMSI Cafeteria	6:30pm

January 2005

Jan 10	Mon	RCA Board Meeting	OMSI Classroom 1	7pm
Jan 17	Mon	RCA General Meeting	OMSI Auditorium	7:30pm
Jan 20	Thu	Astrophysics/Cosmology SIG	Linus Pauling House	7pm
Jan 22	Sat	Telescope Workshop	Swan Island	10am—3pm

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>