

The

Rosette Gazette

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Newsletter of the Rose City Astronomers

August, 2008



In This Issue:

- 1 .. General Meeting
- 2 .. Club Officers
 - Magazines
 - RCA Library
- 3 .. Classic Telescopes
- 5 .. The Observer's Corner
- 7 .. Eyepiece Dilemma
- 8 .. Christina Lee's Award!
- 9 .. New RCA Website
 - Camp Hancock S.P.
10. RCA Forum
 - Oregon Star Party!
11. June Board Minutes
12. Telescope Workshop
 - Science SIG
 - Cosmology SIG
- 13 Meteor Watch
 - Rooster Rock Photos
14. Calendar



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Astronomical League.
<http://www.astroleague.org>

RCA AUGUST 18 GENERAL MEETING

“Looking Into the Nano”

Presented By Eric Sanchez

The first use of the concepts in 'nano-technology' (but predating use of that name) was in "There's Plenty of Room at the Bottom," a talk given by physicist Richard Feynman at an American Physical Society meeting at Caltech on December 29, 1959. Feynman described a process by which the ability to manipulate individual atoms and molecules might be developed, using one set of precise tools to build and operate another proportionally smaller set, so on down to the needed scale.

The term "nanotechnology" was defined by Tokyo Science University Professor Norio Taniguchi in a 1974 paper[3] as follows: "Nano-technology' mainly consists of the processing of, separation, consolidation, and deformation of materials by one atom or by one molecule."

A new generation of analytical tools such as the atomic force microscope (AFM), and the scanning tunneling microscope (STM), combined with refined processes such as electron beam lithography and molecular beam epitaxy, allow the deliberate manipulation of nanostructures, and lead to the observation of novel phenomena.

Dr. Sanchez designed a breakthrough microscope while doing post-doctoral work at the Department of Energy and Harvard University. He now spends time at his microscopy laboratory at Portland State University where he images with light at the nano-scale.

Scanning Near-field Optical Microscopy (SNOM) has generated great interest from biologists and material scientists. SNOM is a relative new technique, which allows for imaging biological and material systems at spatial resolutions significantly lower than the diffraction limit. This technique has demonstrated optical imaging resolutions less than 20 nanometers, at room temperature and atmospheric pressure.

All are Welcome! Monday August 18

Social Gathering: 7 pm. Meeting Begins: 7:30 pm.

Location: OMSI Planetarium

Ee Image of reconstruction on a clean Au(100) surface, as visualized using scanning tunneling microscopy.

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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

New Moon
August 1



First Quarter Moon
August 8



Full Moon
August 16



Last Quarter Moon
August 23



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RCA MAGAZINE SUBSCRIPTIONS



One of the benefits of RCA Membership is a reduced rate subscription to Sky & Telescope and Astronomy magazines. The RCA member rate for Sky & Telescope

Magazine is \$32.95 for one year or \$65.95 for two years. The RCA member rate for Astronomy magazine is \$34 for one year or \$60 for two years. For more information go to the RCA web site index and click on any of the links for magazines. Larry Godsey, Treasurer, 503-675-5217, will be taking renewals and new subscriptions at the Magazine Table before General Meetings. Please make checks out to "RCA" and allow two months for your subscription to be renewed.

RCA LIBRARY

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

The RCA library is constantly growing through many donations and the purchase of new materials. A listing of library materials (PDF format) can be found at the library web page: <http://www.rca-omsi.org/library.htm>

Jan Keiski (jikeiski@comcast.net) 503-539-4566



CLASSIC TELESCOPES

JOHN W. SIPLE AND PAUL CARLSON



THE LYRE of Orpheus, a gift from the messenger of the gods Hermes, charmed every listener with its music. In the quest by Jason and the Argonauts for the Golden Fleece, Orpheus's music lulled the guardian dragon to sleep and prevented the Sirens from forcing the intrepid sailors into the sea. The most famous tale involves the Underworld, where the beautiful sounds from the harp invited the release by Hades of Orpheus's love Eurydice.

Lyra, Orpheus's cherished harp, is seen in the starry domain as a small but distinctive grouping sandwiched in between Hercules and Cygnus, where the six brightest stars form an equilateral triangle on one corner of a parallelogram. The constellation's lead star is Vega or Alpha (α) Lyrae (the "Harp Star"), the fifth brightest in the night sky and reigning member of the Summer Triangle.

Star charts often show the constellation Lyra as a bird of prey; in Arabic, Vega is derived from *Al Nasr al Waki*, "The Swooping Eagle." As a musical instrument Lyra looks more like a zither than a traditional lyre or harp.



The famous Ring Nebula and Double-Double along with a collection of fine binary stars—there is a preponderance of orange and blue pairs—occupy the little constellation. Telescopes in the 2.4 to 3-inch range will give many hours of pleasurable viewing of Lyra's highlights.

To plumb the depths of Lyra, a classic Unitron 3-inch F/16 Photo-Equatorial refractor was selected. Built to the highest standards of mechanical and optical precision by Unitron Instruments, Inc., the performance of the 3-inch refractor telescope was little short of stunning when trained on the Lyre's multitude of celestial wonders.

First observational contact was with the "Harp Star," a brilliant blue-white diamond riding high overhead for mid-latitude northern observers. The constellation's lucida is one of Sol's closest neighbors, lying at a distance of only 26 light-years. Vega was the Pole Star during the dawn of civilization in Mesopotamia and will again be a pivotal star 12,000 years from now. In the sci-fi

movie *Contact*, based on Carl Sagan's bestselling novel, the Vegan star system was the location of a transfer point in a galaxy-wide hyperspace network.

"There Lyra, for the brightness of her stars,
More than their number, eminent; thrice seven
She counts, and *one* of these illuminates
The heavens far round, blazing imperial,
In the *first* order."

At 46x in the Unitron 3-inch scope, Lyra's brightest star is simply bedazzling, an optical attraction stronger than any other. In larger achromatic instruments having a slight blue excess in color correction, "ice-blue" Vega is a never-to-be-forgotten sight. Rather easily seen in the Unitron refractor is a 9th-magnitude companion star about one minute of arc away toward the south.

Only a short hop 1.5° northeast from Vega is the multiple star Epsilon ($\epsilon^{1,2}$) Lyrae, which is familiar to stargazers as the Double-Double. The celebrated quadruple system consists of a 2.6" pair (magnitudes 5.0 and 6.1) and a 2.3" one (magnitudes 5.2 and 5.5) a wide 208" apart. A test of good eyesight is the ability to separate the 208" distance without the benefit of optical aid.

Testimony by users of Unitron equipment from the company's literature describes how easy it is to split the Double-Double. On a steady night, both of the close pairs are just resolved in the author's 3-inch Unitron refractor at 63x, but show lots of dark sky between them when the magnification is boosted to 200x with a stock 6mm Orthoscopic ocular. Seen through

(Continued on page 4)



Left: M57, the Ring Nebula in Lyra. The famous planetary nebula, measuring 80" X 60" across and shining at magnitude 9.3, resembles a miniature smoke ring in the 3-inch Unitron refractor. The magnitude 14.8 central star was not seen.

Right: The globular star cluster M56 lies in an extremely rich field of the Milky Way. The compact gray glow was first recorded by Messier on January 19, 1779.



Classic Scopes (Continued from page 3)

the telescope, the elegant cream-colored components of ϵ^1 and ϵ^2 are aligned nearly perpendicular to each other.

Zeta (ζ) Lyrae, a dashing duo of magnitude 4.3 and 5.9 suns some 44" apart, forms the remaining corner of the equilateral triangle with Vega and Epsilon. The attractive double is best seen in the Unitron telescope at medium power, where the color contrast is most evident. The tints of the two stars in the 3-inch refractor are reddish and blue-green, but other observers have reported combinations of greenish white & orangish white and pale yellow & pale lilac.

The naked-eye pair Delta¹ (δ^1) and Delta² (δ^2) Lyrae is found by stopping at the northeastern corner of the constellation's parallelogram. The intense bluish-white and ruddy-orange stars, widely separated by 630", are a grand sight in the Unitron at 30x with a 40mm Plössl eyepiece. A spray of 15 tiny stars down to 10th magnitude or so, shown on star atlases as Stephenson 1 (Delta Lyrae Cluster), surrounds the main pair. Taken collectively, the assemblage is an extraordinary visual delight!

Beta (β) Lyrae, the "Tortoise Star" and Struve's Eclipsing Binary, forms a miniature Y-shaped asterism in the eyepiece field with three other stars. Sheliak has a magnitude 8.6 companion star 46" distant, and two fainter 10th-magnitude suns lie 67" and 86" away. Beta prime itself varies in brightness from magnitude 3.3 to 4.3 over a 12.9-day period. (The primary consists of two hot, massive class B7 and A8 stars in a close dance around each other,



where tidal forces have distorted their shapes into ellipsoids.)

The constellation's chief deep-sky attraction is M57 (NGC 6720), popularly known as the Ring Nebula. It is readily found halfway between Beta (β) and Gamma (γ) Lyrae. The annular nebula, resembling a tiny smoke ring, has about the same apparent diameter as Jupiter but shines much dimmer at magnitude 8.8.

The astral doughnut has a decidedly oval appearance when viewed through the small Unitron refractor. The striking planetary nebula bears magnification remarkably well, displaying several bright luminous patches on its misty disk and a dark central hole. The central star of M57 is notoriously difficult to detect visually and is a challenge object for large amateurs' instruments.

At 30x using the 3-inch Unitron refractor, the vari-colored double star O. Struve 525 is visible along with the Ring Nebula in the same starry field. The binary star has been given the name "Miniature Albireo" because of an uncanny resemblance to its famous neighbor Beta Cygni.

The second Messier object in Lyra is the globular star cluster M56 (NGC 6779), located between Gamma Lyrae and Beta Cygni (Albireo) and set against a rich backdrop of the summer Milky Way. In the 3-inch Unitron refractor at a power of 150x, the 8th-magnitude object is seen as a

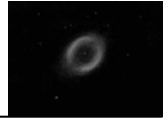
Above: A cool disk of material surrounds Vega in this artist's illustration. Eventually the star may form a planetary system of its own. **Below left:** The cover of the Unitron 1972 catalog displaying their fully-equipped 3-inch Photo-Equatorial model.

fairly uniform circular glow that lacks a bright core region. A few scattered members on the periphery of M56 are resolved, but the rest of the globular cluster remains a featureless spot of milky light.

Moving in a northerly direction from M56, amateurs will soon encounter the intriguing combination of double stars Struve 2470 and 2474. Nicknamed the Double-Double's Double, this alluring celestial treasure consists of nearly identical pairs spaced 600" apart. The individual pairs have greater separations (14" and 16") and noticeably fainter components than their famous counterpart ϵ Lyrae to the northwest, but still present to the observer an incredible display of symmetry in nature.

A dedicated star-hop is required to positively identify the deep red carbon star T Lyrae, our last object on this listing of many of Lyra's finest stars and deep-sky splendors for small telescopes. The ruddy sun (5 on the carbon band scale) has an irregular period with magnitude range of 7.7 to 9.6. The unpredictable changes in light output are a thrill to watch in the Unitron telescope. If lucky, the variable star will be caught during its "dim" stage when exhibiting the darkest red hue.

IMAGE CREDITS: www.fillingthesky.com/phaenomena.html (Lyra star map); Martin S. Mitchell, Derbyshire, England (Vega); Al Kelly (M57); Bill Patterson – laastro.com (M56); and Paul Doherty (Vega space art).



Oregon Star Party Tips

These tips are some things I've found important over the last 17 years of star partying and may not apply to anyone but myself, but know that each item earned its place here the hard way.

1. **Make a list of everything you want to take to the OSP and be sure everything is in working order before packing it up.** You'll discover the enormous usefulness of sunscreen, hand wipes, cutlery and a clean towel if you forget them, so make doubly sure they get packed. Obvious items like telescopes, eyepieces and food should definitely be on the list too. Oh yeah, bring an extra pillow – I almost always forget mine so I may need to borrow one.
2. **Be sure the interior lights of your vehicle don't come on when you open a door at night.** This may be as simple as slightly pulling up on your parking brake or as intimidating as pulling a fuse, but it will save you the frustration and embarrassment of compromising the dark adaptation of those nearby. If you can't figure out how to turn off these lights then either remove the light bulbs or place red tape on their covers so they're very dim.
3. **Anytime you lock your vehicle be sure you have a spare key in your pocket.** Locking yourself out is inconvenient and really embarrassing, but on the plus side you'll hear lots of interesting ideas on how to get back in from a surprising number of people of who have done the same thing. Some of the suggestions involve breaking a window or drilling out a lock but the most common one is to make sure you always have a spare key in your pocket.



Stars, stars everywhere, but what to look at?

4. **Have a plan on what you want to observe.** You're likely to be under the most pristine skies you'll see all year and there are few things more frustrating than looking up and wondering what to look at. The OSP committee has come up with three excellent observing lists (<http://www.oregonstarparty.org/awards/2008-prog.htm>) so

- there's no need to start from scratch, but some advance preparation will greatly enhance your observing pleasure. For instance, locating and marking the objects you want to observe on your star charts will not only help you find them more quickly, it will also help determine the order in which you observe them. This will help avoid missing an object because it's already set in the west or hasn't yet risen in the east and is a good idea even if you plan to follow one of the OSP lists. I also highly recommend learning a little about what makes each object on your list unique, outstanding or otherwise interesting.
5. **If you plan to wander the observing field and look through other people's scopes, recognize that some of these folks have planned their observations in advance and may be on something of a schedule.** You're likely to come across at least a few observers who will be trying to see an obscure and faint object as it's setting in the west and have spent an hour tracking it down, so they may not be much fun to hang around until they move on to less challenging objects. Don't linger around these intent observers unless you're sure your company is welcome. If it's hard to tell just say thanks and move along to the numerous folks who obviously delight in sharing views through their scopes.
 6. **Resist the temptation to move an unattended scope at night!** The owner will probably be right back and may be one of those intent observers mentioned above. Nobody likes the company of a grumpy observer, especially the person who just moved their scope.
 7. **Imagine the clothes you'd wear for ice fishing – that's how you dress for observing:**

<http://www.freshwater-fishing-canada.com/icefishingclothing.html>



No kidding, these people are dressed appropriately for observing at the OSP.

8. **Clean your eyepieces before going to the star party** because once you're there it will only take one tiny particle of that famous OSP dust to put an ugly scratch on your

(Continued on page 6)

OSP Tips (Continued from page 5)

expensive glass. And be super careful when cleaning your eyeglasses too.

9. **Take extra and fully charged batteries** for your telescope, Telrad, red flashlight – anything that needs a battery.
10. **If you're bringing family members, make sure they each have a red flashlight.** Remember, only dim red light is needed – a regular flashlight with a single layer of red plastic over it will be way too bright. Also make sure that everyone realizes the importance of not shining their red flashlights at people and especially their faces.
11. **If you can push your scope over so can the wind,** so don't leave your Dob pointing straight up during the day! The chances the wind will blow your Dob over are greatest in this configuration, so better to have the scope pointing down around 20 degrees so the wind will merely twirl it around a bit. Have a way to lock your scope at this altitude so the wind can't catch the nose, flip it up and then crash it to the ground. Been there, done that. If your scope is lightweight you might consider taking the tube out of the rocker box during the day and storing it in your vehicle to completely remove the chance of any wind induced carnage.



Nice scope covers, but do not leave your Dob pointing straight up during the day... the photo on the right shows a much safer orientation. Note the water jugs hanging off the front end of these



This near disaster happened because the tarp covering my scope was loosely tied down and ballooned up in the wind. Because the scope wasn't fixed in altitude the wind caught the tarp, lifting the scope up and flipped over to the ground. Amazingly, almost everything escaped unscathed - including the optics - but I did have to build a new UTA cage.

12. **If you plan to cover your scope with a tarp get one large enough to completely cover it.** Or break down your scope into a small enough package so a smaller tarp completely covers it. Also make sure you have enough clips or rope to completely tie down the tarp because if left loosely attached it can make a suddenly powerful sail when the wind picks up – see the above photo. Silver or white are the best colors, but don't use clear plastic as it will create a greenhouse effect and your scope will take even longer to cool off, and perhaps dry off, at night.



Rain? We don't need no stinkin' rain! But just in case, a snugly fitted tarp will save the day. Note the tarp used as ground cover as well.

13. **A piece of outdoor carpet around your scope works great to keep dust down while observing,** and if you have room take an extra piece of carpeting to put outside your tent, vehicle or RV to keep dust down around them. Take some 16 penny nails along (don't forget a hammer) to nail down the corners of the carpet to the ground. A large rock on each corner helps too. An alternative to outdoor carpet is to use a big tarp, but they're not as durable as carpet and make a crinkly sound when you walk on them. On the other hand a tarp folds up into a much smaller space and they're less expensive.



A little bit of outdoor carpet takes the edge off the famous OSP dust.

(Continued on page 7)

OSP Tips (Continued from page 6)

14. **Shade is scarce at the OSP and pop-up awnings are a great way to make your own.** Secure the awning so the wind can't blow it away but know that anchoring them with stakes is sweaty, frustrating and potentially futile work because just beneath all the famous OSP dust are rocks, and lots of them. Tie each corner to something heavy - I've come to like plastic buckets (the orange ones from Home Depot) that can be filled with rocks. There's a surplus of rocks at Indian Trail Springs so a side benefit of filling up a few buckets is fewer rocks to trip on in the dark around your scope and campsite.



Canopies, vehicles and tents at the 2008 Golden State Star Party. Note that the canopies are placed to the north of the vehicles for extra mid-day shade.

15. **Secure a tarp to the side of your awning to increase morning and afternoon shade,** but beware that this will make your awning more susceptible to wind. If you have

the space, you can put the awning next to your vehicle for extra shade.

16. **Take some time to absorb the beauty of the pristine night sky with just your eyes.** Watch how the Milky Way moves across the sky during the night, look for the faintest stars and galaxies you can detect without optical aid, the Gegenschein around midnight and the Zodiacal Light and Band in the morning. You'll see lots of meteors too - in fact if you keep track of when I'm not looking up you'll be sure to see all the brightest ones. Also, the best sunrises I've ever seen have been at the OSP and they're a great way to end a fabulous night of observing. After soaking in all this glory, compare it to your sky at home and then become a member of IDA

(<http://www.darksky.org/mc/page.do>).



OSP sunrise. This is also quite possibly the quietest environment you'll ever be in - you can practically hear your ears trying to listen.

SOLVING AN EYEPIECE DILEMMA

By Stan Seeburg



*Image courtesy
<http://www.televue.com>*

My favorite eyepiece is a 14mm Tele Vue Radian. It's a gem both optically and mechanically but has one drawback that interferes with its operation at star parties where viewers often press the easily adjustable eyecup down to its lowest position. I prefer it to be in between its lowest and highest points.

Just before a recent star party I made a quick-fix by securing a rubber band above the 1.25-inch barrel. I knew that a rubber O ring would solve the problem. Not wanting to expose the eyepiece to the grunge of a plumbing store, I bought several sizes, cleaned them with alcohol and figured that one of them would work well, which it did.

After putting it on to the barrel I ran into a problem. In attempting to stretch it over the larger diameter part of the eyepiece with one hand and trying to hold the eyepiece cup at its maximum separation with the other, I wasn't able to do so. The rubber band came to the rescue. Once the ring was secure it was just a matter of using a toothpick to remove the band and adjusting the ring to the desired position.

I mentioned the reason for my visit to the store's clerks who were very helpful and a couple of new converts to amateur astronomy may have resulted!

Congratulations to our First Place Winner, Christina Lee!

Christina Lee, the 2008 First Place Jack Horkheimer Award winner for the Astronomical League, gave a presentation about the "Galaxy Zoo" program at the 2008 ALCON in Des Moines July, 2008.

Christina was presented with a plaque, a check for \$1,000 and a Celestron telescope as well as an all-expense paid trip to the convention for her and her parents.

She is a member of the Rose City Astronomers in Portland, Oregon and the Vancouver Sidewalk Astronomers. Christine is a very active club member who has made presentations about science, astrophysics, galaxies, and other science topics. Christina is a volunteer for the Galaxy Zoo project that is classifying millions of galaxies obtained with Sloan Deep Sky Survey telescope. She is also currently grinding a 6-inch mirror at the RCA Telescope Workshop. (See photo at right)



In addition to being a regular attendee at the RCA Cosmology/Astrophysics Special Interest Group (SIG) for the past two years, in March 2008, she gave a presen-

tation on "Black Holes: Behind the Event Horizon" and discussed the models for black holes and their many mys-

teries. In November 2007, she presented on "Engineering in Microgravity".

In the summer of 2007 she interned with Dr. Mark Weislogel at Portland State University's Department of Engineering through Saturday Academy's Apprenticeships in Science and Engineering. They attempted to predict how water behaves and how to utilize its properties of capillary action.

A Junior, she has served as the "astronomy expert" for Central Catholic High School's Science Bowl team for the last two years, sponsored by the Bonneville Power Administration. They won 12th place out of 64 teams for Oregon and Washington States for 2007. Central Catholic High School Varsity Science Bowl placed 4th for Washington and Oregon States in 2008.

Christina is a shining star in the Rose City Astronomers and we are all very proud of her accomplishments. We know she will go on to great things in the future.



New RCA Website!



Some Promise the Universe - We Deliver!

- Home
- About RCA
- Information
- Officers
- Membership
- News & Events
- Calendar
- Star Parties
- Newsletter
- Sister Clubs
- Observing
- Schedule
- Observing Sites
- Star Party Tips
- Awards
- Observing Site Fund
- Members
- E-Mail Forums
- Social Interest
- Library
- Telescope Library
- Merchandise
- Message
- Knowledge Base
- Resources
- Member Websites
- Links
- Site Index

Thanks to
OMSI
For Their Support



Proud Member

The next RCA meeting is August 18, 2008 starting at 7:30pm in the **OMSI Planetarium**

6:15pm - New Member Orientation in the Planetarium
7 - 7:30pm - Social Gathering in the Hallway
7:30pm - Meeting Begins in the Planetarium

The speaker for August 18th is Dave Julia
His topic is the **Allen Telescope Array**.



The Allen Telescope Array (ATA) is a joint project between the SETI Institute and the University of California at Berkeley Radio Astronomy Lab (RAL) and will eventually consist of about 350 6.1-meter dishes at Hat Creek in Northern California.

M31 - Andromeda Galaxy



ATA View Optical View

The ATA website can be found at:
<http://www.seti.org/seti/projects/ata/index.php>

The Rose City Astronomers club is located in Portland, Oregon and is the largest amateur astronomy club in the Pacific Northwest. In partnership with **OMSI** the RCA supports educational activities such as public star parties, telescope making workshops, Astronomy Day and other celestial events and gatherings.



Rosette Gazette
RCA's Award Winning Newsletter

2008 Star Party Schedule

Clear Sky Chart for the next 48 hours

August 1-3
Trout Lake Star Party

At this time we have NOT canceled this outing and want to make one change to the great. Watch here for further updates late next week.

Sub Stewart State Park Star Party
August 9

RCA-OMSI Perseid Meteors at Rooster Rock
August 11

CONGRATULATIONS TO CHRISTINA LEE for winning the Astronomical League's Jack Horkheimer Award!

We don't know if you noticed, but recently our RCA Webmaster unfurled a newly redesigned web site for the Rose City Astronomers club. We're also transitioning to a new web address at <http://www.rosecityastronomers.org>.

The old web site won the Astronomical League Mable Sterns award in 2003, and the new web site is even bigger and better. Among the added information is a new Star Party area, updated SIG info, and a new Knowledge Base that is growing as we add new information for both beginners and the experienced viewers. Congratulations to Dareth Murray for improving on was was already an award winning website.

Camp Hancock Star Party September 26-28

With the grand-daddy of dark sky parties coming up (The Oregon Star Party, of course) you might still need another weekend in late September to wind down your viewing season.

Larry will be taking registrations at both the August 18th and September 15th meetings, or you can mail your registration in to him. Mail In Registration and Payment Deadline is Tuesday, September 16th. If we reach our capacity earlier we will cut off registration earlier, however we do expect to get permission again to use the "Dob Valley" which will increase our capacity by quite a bit.



September 26-28 will be the final RCA outing of the year and **OMSI's Camp Hancock** with meals and cabins fits the bill for a great outing for on cool fall weekend. Dark skies, warm cabins, real bathrooms, warm showers, good meals and great friends top off the last outing of the year for RCA. There's also electrical outlets on both Astronomy Hill and the Ridge for those who need power for their scopes, CCDs and computers. Wireless internet service is also available at Hancock.

Lots of information for our outing, including pictures, downloadable Camp Hancock information, Clarno Fossil bed information, Driving maps and instructions, etc. can be found on the newly redesigned RCA website under Star Parties. Join us for the final fall fling at Hancock.

OSP 2008

So what is there to do in August with warm sunny days and cool clear nights? You could stay up all night, sleep in until noon, enjoy your breakfast, lunch and dinner outdoors with the warm sun on your back and a light breeze ruffling your hair while you enjoy astronomical and scientific talks, take a tour through the forest of telescopes, visit vendors selling astronomical equipment, goodies and other related items, drool over giant telescopes, admire the handiwork of unique homemade scopes and go for a walk in the woods, or just kick back, relax and chat with some 600 of your closest friends.

Then as the sun sets and the warm daytime temperatures drop, the world around you comes alive with the sound of dust covers being removed from telescopes, the whirring of the goto scopes, the chatter of people setting up telescopes, planning their evening viewing and the occasional burst of "WOW! YOU GOTTA SEE THIS".

One of the largest and darkest star parties on the North American continent comes alive August 27-31 with warm sunny days and cool clear nights in the high desert area of Ochoco Mountains 50 miles east of Prineville, Oregon. At 5000' feet in elevation and 50 miles from the nearest city, the sky is so dark that the milky way is the major source of light pollution. The saying the 'you gotta see it to believe it' is no truer anywhere than at OSP.

The talks during the day range from "String telescopes - from theory to implementation", "The Latest Info on the Allen Tele-

scope Array", "How to Identify what's in your Astrophotographs", clear up to the "Ultimate Fate of the Universe".

Need help for yourself or the kids? We have mentoring programs that are designed for both adults and kids. The

Youth Mentoring program provides a telescope for the evening, an adult mentor, and a Planisphere to take home with them (courtesy of Edmund Scientifics). The Adult Mentoring program provides a mentor to help you with your scope at your camping site. We also have a "Limiting Magnitude" session and three "Sky Tours" during the weekend.

Don't want to bring food? The Chuckwagon and Espresso Blast will be up and running Wednesday for dinner until lunchtime on Sunday. Breakfasts,

Burgers, 'Dogs, Sandwiches, desserts, caffeine, non-caffeinated and iced drinks will be available. The shower truck will be back with those hot showers that feel so good after a night observing, or a cooler one late in the day to clean up and cool off.

So, plan now to join us for the 21st annual Oregon Star Party. If you didn't pre-register don't worry, we still have lots of room on our 40 acres and you can register on-site.

For details, driving directions, maps, and information go to our website at oregonstarparty.org.

See you at OSP



RCA Forum To Go Online August 11

After several months of discussion, research, testing and more testing, the RCA Board of Directors has decided to retire the email listserv, and launch the RCA Forum as the primary means for club members to share information and conversation with other members, and club officers to send announcements of activities and club business to our membership.

While the email listserv has served the club well for many years – the Board feels that switching to a forum will not only offer enhanced features and flexibility to the online conversations that help keep our members in touch with each other and our hobby, but is a move that will keep us closer to the mainstream of modern communication practices.

The RCA Forum is tentatively scheduled to go live on August 11. Watch for a message on the email listserv about the procedures for activating your account on the Forum – or check the RCA Website (follow link to Forum) after August 11 for instructions. At the August 18 club meeting there will be an extended orientation and demonstration of how to register and use the Forum.

The email listserv and special group lists will be suspended the first week of September.



BOARD MEETING MINUTES

July 7, 2008

OMSI Classroom 1

Margaret Campbell-McCrea

Attending: Greg Rohde, Matt Brewster, David Nemo, Ken Hose, Doug Huston, Carol Huston, Dareth Murray, Larry Godsey, Dale Fenske, Jan Keiski, Jeannie London, Sameer Ruiwale, Margaret Campbell. A quorum was met with 13 present.

The meeting started at 7:08 p.m.

Officer Reports:

- Secretary: June minutes finalized.
- Treasurer: Larry provided not only a monthly report, but a year-end report. RCA current assets are \$20,617.72 and the Site Fund is \$18,675.24. We reviewed the last year's expenditures and noted that most areas ended up under-budget.
- Programming: 2008 is being celebrated as the 400th anniversary of the telescope, so Peter Abrahams will be presenting a talk on the development of the telescope. In August, Dave Jolle will be speaking on the Allan Array. Both meetings will be in the planetarium.
- Observing: The Stub Stewart event was a washout because of clouds. The Maupin event had 25 camp sites and was successful. Doug reported that Wilsonville City wants to have a star party this weekend (July 12-13) on a bridge they are opening up over a wetland. Greg agreed to help out, and Doug will advertise the event on the RCA list. We hope to get 2 – 3 largish telescopes out.
- Community Affairs: No report.
- Media Director: No report. However, we discussed putting out a press release about Christina Lee's winning the AL Youth Award to the Oregonian and the Columbian. Dareth will write that press release / article. Dale also mentioned that he's going to contact the Oregonian about the cutback in science reporting, and especially the loss of Bob Duke's regular astronomy article.
- Membership: We had 318 members at the end of our fiscal year. One-quarter of our membership is new members. In June we had 70 renewals and 8 new members. There was some discussion about getting the email addresses of members and contact information for family members who have different names or email addresses. Ken will look into that.
- New Member Advisor: No report.
- Sales Director: \$207 in sales in June.
- Library Director: Jan noted that in June the library received 20 books in donations, all high quality. She also showed a new book called Star Finder from DK Books that she ordered from the library.
- Telescope Library: Nominal
- IDA: No report.
- Magazines: Nominal.
- Webmaster: [Report under New Business.]

- Site Committee: Nominal.
- SIGs: The science SIG has moved and Tom Nathe will make an announcement about the new time and place when he returns.
- OMSI: The July and August meetings will be in the planetarium.
- ALCOR: Nominal.

Old Business:

- Forum/eList: Dave Nemo gave a brief written history of the committee's work to this date on setting up a forum that will meet our standards. There was extensive discussion about the new Forum. The general agreement is that the Forum works well and meets the needs of the RCA members, including those who still want to get all their RCA communications by email. The focus of the discussion was when and how to transition the club membership to the forum. The plan was generally outlined as:
 - have a 15-minute tutorial on the new forum for one or two meetings.
 - Have it live at a meeting for practice sessions
 - Members will have the option to participate in the Forum, or not.
 - Send out instruction or help memos via the old-style email to club members
 - The announcements will begin with the July meeting, and the change over will take place over time, with Sept. 1 discussed as a possible change over time.
- Larry and Dave will be studying alternate registration procedures, and Dave will be working with the Forum Committee on developing a transition plan that works out the details of timing and communications. Doug moved and Dale seconded that we transition our communications to the forum as described above. The vote was unanimous.
- Street Light Replacement Project: Sameer reported on attending the second open house. The design of the lights will replicate the original lights, but because of Bob's comments at the first open house, the design team is working with the manufacturer to find ways to shield the lights better. The next step is that the city will put a few test lights in at the end of July and invite public comment. Sameer will send out a notice to the club when that happens.

New Business:

- Sameer introduced Jeannie London to the Board. Jeannie has been a classroom elementary school teacher for seventeen years. She is just coming back to her high school interest in astronomy, and volunteered to run the RCA youth program. She described in detail her experiences and ideas, and said she is especially interested in eventually adding the teens back into the program. She asked for a focus group to assist her in designing an educational program for our youth. We decided to open a topic on the youth program on the RCA Forum, and that Jeannie will do something small for the summer meetings just to get started, and build a larger program over time. Carol

(Continued on page 12)

Board Meeting Minutes (Continued from page 11)

moved and Greg seconded that Jeannie be our Youth Director. The vote was unanimous.

- **Website Design:** Everyone on the Board has looked at the new pages. They are essentially ready to go. Dareth and Larry will send out an announcement to the club email list about the change. Both the new and old site addresses will work, i.e., rca-omsi.org and rosecityastronomers.org will both work. There are over 140 pages and 3,000 links on the new site.
- **Trout Lake Star Party:** Some members of the Tacoma Astronomy Club were thinking of attending, but there is no word at the moment as to whether they will or not.
- **Sister Club with GAMA:** Margaret motioned and Jan seconded that we begin an official Sister Club relationship with GAMA as outlined by the guidelines. The vote was unanimous. Carol will create the certificates and bring them to the next RCA meeting for Sameer to sign.
- **AL relationship with local clubs:** Carol mentioned that the AL wants input from local clubs about what it can do for them. She agreed to start a new topic on the Forum for that discussion.
- **Videotaping our speakers:** Sameer asked for enough money to buy a video camera on sale which we could use to put our speakers on our website. There was no vote taken on this item, but there was no objection either.

Action Items:

1. Sameer will think of a way to thank owner of Maupin field.
2. Margaret will send Bernie Kuehn and Jenny Forrester's contact information to Jeannie London.
3. Carol will track down some AL astronomy lessons for kids.
4. Dareth will write press release and/or article on Christina Lee.
5. Carol will create certificate of sister club relationship.

The meeting adjourned at 9:08 p.m.

Telescope Workshop

When: Saturday, August 16, 10:00 AM - 3:00 PM

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

For more information contact:

Director: John DeLacy johncdelacy@comcast.net

Assistant: Don Peckham don@dbpeckham.com

Science Special Interest Group (SCI-SIG)

Next meeting is August 16 at 3pm. Following the Telescope Workshop at Technical Marine Services.

This group is for people who would like to advance their skills in astronomy beyond casual observing. Various projects that some group members are involved in include; variable and double star observing, occultations, photometry and astrometry. A science background is not required, however a curious mind does help.

Location of TMS -

<http://www.rca-omsi.org/clubprojects.htm#telescope>

Tom Nathe <tmnathe@verizon.net> RCA SIG coordinator

ASTROPHYSICS / COSMOLOGY SIG

Date/Time: Wednesday, August 20, 7 PM.

Topic: "The Birth, Near-Death & Resurrection of the Kazan Observatory"

Presented by: Michael Meo

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

Contact: Bob McGown (503-244-0078)
or Dareth Murray, (503-957-4499).

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

RCA 'Downtowner's' Lunch

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

The location is announced on the RCA general email discussion list. Information on how to join this list is at <http://www.rca-omsi.org/emaillists.htm>

Always great conversation and food.

For more information contact: Margaret Campbell at mmcrea@nwind.com



Photo by Jan Keiski



Perseid Meteor Shower Watch at Rooster Rock August 11, 2008

The Oregon Museum of Science and Industry (OMSI) is getting ready for its largest star party of the year on August 11! Stargazers will be meeting at Rooster Rock State Park at 9 p.m. to watch and enjoy the wonder of the Perseid Meteor Shower.

August brings one of the year's most famous and enjoyed meteor shower - the Perseid Meteor Shower. Hundreds of star lovers from across the Pacific Northwest are expected to attend OMSI's biggest star show of the year. The event, sponsored by OMSI, the Rose City Astronomers, the Vancouver Sidewalk Astronomers and Oregon Parks and Recreation will have telescopes set up for attendees to use. Jim Todd, OMSI's planetarium manager, will be presenting informal talks about the meteor shower, constellations, and the summer sky.

The Perseid Meteor Shower occurs when the Earth enters the path of debris left by the comet Swift-Tuttle in its last trip past

the Sun. Swift-Tuttle follows a highly eccentric orbit around the Sun with an orbital period of about 130 years. The comet last passed by the Earth in December 1992.

This strong annual shower can produce 20 to 60 meteors an hour, though because of the light pollution and other factors, "many are too faint to see with the naked eye," Todd said. "Still, an observer in a dark subdivision can hope to see few meteors on the peak nights. This year the waxing gibbous Moon will not be a factor during the prime meteor-watching after midnight. Under these conditions, you might see a Perseid or two each minute."

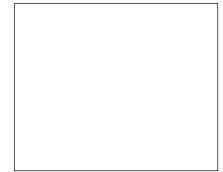
Rooster Rock State Park is located 22 miles east of Portland on I-84 at exit 25. The event is free, and there is a \$3 per vehicle parking fee for public. For possible weather cancellation, call (503) 797-4610 on August 11 after 4:00 PM to get the latest information.

Scenes from Rooster Rock Star Party July 12, 2008

By Jeff Bonadurer



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



AUGUST 2008

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 2008

Aug 1-3	Fri-Sun	Trout Lake Star Party	Trout Lake, WA
Aug 4	Mon	RCA Board Meeting	OMSI Classroom 1 7pm
Aug 8	Fri	Downtowners' Luncheon	Kell's Noon
Aug 9	Sat	RCA Star Party	Stub Stewart State Park
Aug 6-10	Wed-Sun	Mt. Bachelor Star Party	Mt. Bachelor
Aug 11	Mon	OMSI Perseid Meteor Watch	Rooster Rock S.P.
Aug 16	Sat	Telescope Workshop	Swan Island 10am-3pm
Aug 16	Sat	Science SIG	Swan Island 3pm
Aug 18	Mon	General Meeting	OMSI Planetarium 7pm
Aug 20	Thurs	Astrophysics/Cosmology SIG	Linus Pauling Complex 7pm
Aug 27-31	Wed-Sun	Oregon Star Party	Indian Trail Spring

September 2008

Sep 5	Fri	RCA Star Party	Stub Stewart State Park
Sep 5	Fri	Downtowners' Luncheon	TBD Noon
Sep 6	Sat	RCA/OMSI Star Party	Rooster Rock State Park
Sep 8	Mon	RCA Board Meeting	OMSI Classroom 1 7pm
Sep 13	Sat	Telescope Workshop	Swan Island 10am-3pm
Sep 13	Sat	Science SIG	Swan Island 3pm
Sep 15	Mon	General Meeting	OMSI Planetarium 7pm
Sep 17	Thurs	Astrophysics/Cosmology SIG	Linus Pauling Complex 7pm
Sep 26-27	Fri/Sat	Dark Sky Star Party	Camp Hancock

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>