



Roanoke Valley Astronomical Society



News About Amateur Astronomy
In Southwestern Virginia
<http://www.roavas.org>

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November 2003

Boys and their toys...

Gadgets, Gear and Gizmos

By John Goss

August and September were two very busy months for RVAS members. Simply put, the public wanted to see Mars, and our club complied. **Paul Caffrey** cited 20 separate public events reaching more than 2,600 people. Fourteen club members could be found at Explore Park, Discovery Center, Cahas overlook, and in the Roanoke schools.

Another RVAS member has conquered Messier's list of deep sky objects. Courtesy of the Astronomical League, Paul Caffrey presented **Clark Thomas** with a stylized lapel pin and certificate. Congratulations Clark! Now on to the Herschel 400 list.

The Great Bounty of Autumn's Subtle Sky

This time of year we may be saying goodbye to Sagittarius but we're saying hello to Andromeda, Cygnus and Cassiopeia. What's Up in October? How about M13, M27, M31, M33, M57 and the many open clusters in the northern Milky Way. For those who stay out a little later, Saturn will

be passing in front of a lot of eyepieces!

Autumn constellations aren't usually given much unaided eye consideration, but there is a lot to be had if one makes the effort to look. Aquarius, although in a relatively dim region of the sky, has some noteworthy objects. **Katherine Hix**, in her "Constellation of the Month" feature, described both Messier and non-Messier favorites. Aquarius contains 2 big planetary nebulae, the Saturn and the Helix. The former is a showpiece while the latter is a challenge object. Globular clusters are always fascinating, and Messier found two of them among the dim stars in the region. M2 is one of the better globulars. M72 is less spectacular. Undoubtedly, the most difficult object mentioned was the Aquarius Dwarf Galaxy. It shines at a 13.9 magnitude, and is a small 2 x 1 arc minutes in size.

Great Additions to Your Christmas List

The main feature of the evening was a "show and tell" by members for members. Here

the spot light was cast on interesting gadgets, gear, and gizmos that members brought to share.

Kicking off the list was **Paul Caffrey's** pocket pc installed with "TheSky." Paul likes using this compact instrument for finding lunar rise and set times.

Everywhere you look these days, you see images captured with CCD cameras. What does a ccd camera look like? **Mike Good** showed off his with its bells and whistles. For those who want to run out and buy one, be sure to have \$7,300 in your pocket. For that price, it had better come through with great images! It does.

Mike Overacker enjoys astrophotography, but not through a telescope lens. He uses a 10 inch Meade SCT as a base and mounts on it piggyback a Canon digital camera with a 420 mm lens. Mike has obtained some fine wide angle shots of the summer sky. Look at his web site (<http://www.darkskyphotos.com>), and you'll get the picture!

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Zen Stargazing

By Clark M. Thomas

The next time you go out to gaze at the heavens, consider that you are doing what Zen monks in Japan have done for centuries.

Zen life and amateur astronomy have much in common, because

Mystery Object

Can YOU identify the ghostly object below? Email your best guess to Dave Thomas, our Mystery Object Columnist, at thomasde-ka8inl@worldnet.att.net



each approach Nature directly and personally. Each is filled with wonder, and ultimately with more questions than answers.

The Zen master may ask what is the sound of one hand clapping. The astronomer may ask if there are universes beyond our own. Both questions are not to be answered with facts, but with a new humility for our limited powers.

Astronomers know not to be too greedy. We can't even see all of our own galaxy. We can see back in time "out there," but we are stuck in our own time down here. We are filled with awe, and most of us find that our hobby fills us with a calming satisfaction.

When you contemplate a Zen garden, consider that you are doing the same thing when you contemplate the constellations. Zen gardens are constructs of the mind, just as constellations are.

Some of us find joy in trying to maximize our equipment, optical and electronic. The ideal of perfection is not really in our CCD images, it is in our very selves. Our journey of playful learning becomes the destination we seek.

Astronomers don't need to dress like Zen monks, or speak Japanese. We just go out into the cool darkness and play with the universe. That's the essence of Zen satori.

Astro-Quiz

What is the most southerly of the first magnitude stars that are visible from our latitude?

Answer to Last Month's Astro-Quiz: It's a simple fact, though generally overlooked. From our hemisphere Polaris, the North Star, is always seen at a certain height or angle above the northern horizon. That height or angle tells us our latitude. One way to picture this is to suppose that you were standing on the equator and facing north. Polaris would lie right on the northern horizon. If you started walking northward, your distance from the equator along the curving surface of the earth would be your latitude. As the equator slips behind you, Polaris would rise an equivalent angle above the northern horizon ahead of you.

The Roanoke Valley Astronomical Society is a membership organization of amateur astronomers dedicated to pursuit of observational and photographic activities. Meetings are held at 7:30 p.m. the third Monday of each month at Center in the Square Roanoke. Meetings are open to the public. Observing sessions are held one or two weekends a month at a dark-sky site. Yearly individual dues are \$20.00. Family membership is \$25.00; student membership is \$10.00. For information, call the RVAS Message Line at 540-774-5651. Articles, quotes, etc. published in the newsletter do not necessarily reflect the views of the RVAS, its editor, officers, or individual members.

RVAS web page: <http://www.roavas.org>

Officers/Executive Committee: Paul Caffrey, President (345-2847); Katherine Hix, Vice President (334-2443); Carol Mesimer, Secretary (334-1177); Lynn Slonaker, Treasurer (774-5695); Dennis Stevens, Executive Committee Member-At-Large (989-8801); Dave Godman, Immediate Past President (774-3337); John Goss, Past President (966-4606); Clark M. Thomas, Newsletter Editor (427-1873, clarkt7@cox.net). Dave Thomas, Mystery Object Columnist (thomasde-ka8inl@worldnet.att.net).

Mars Mania 2003

By Paul Caffrey

A brief survey of the club's outreach activities this summer and fall was conducted by the RVAS president, Paul Caffrey. The results were outstanding!

Between the months of July and October over 15 club members participated in, or organized, over 20 events.

Last Month's Mystery Object

The Mystery Object for the month of October was the lunar crater Tycho, probably the youngest major crater on the lunar surface.

Tycho is located in the Moon's southern uplands. It is 85 kilometers (53 miles) in diameter. The crater walls ascend 4500 meters (13,639 feet) above the crater floor.

Tycho is a ray crater with rays in all directions out to 1500 kilometers (almost 1000 miles).

The crater also features a prominent central peak surrounded by a rough crater floor. There is a dark ring around the crater under a high Sun. The crater makes a good showing at all angles of lighting.



Most of the events focusing on the favorable opposition of Mars. A best estimate of the people who attended these events comes to approximately 2,600 people.

That's quite a feat for a club of 86 memberships. Of the 15 or so members, I'd like to extend special thanks to **John Goss, Mark Hodges, and Mike Overacker** who totaled over eight events each.

The list of participants goes on with **Frank Baratta, Mike Good, Dave Godman, David Thaler, Genevieve Goss, Katherine Hix, Matthew Mannes, Richard Zue, Isaac Campbell, Clark Thomas, and Mahesh Tailor**. There were others I'm sure, and I would like to thank them all. We have several new members, and have inspired many others.

With the club's involvement in outreach activities growing, and the demand for such activities also growing, I'd like to request that each member examine how he or she can help in these outreach programs. You don't need to have or bring a telescope. We would ideally like to have a ratio of two club members per telescope, so no member gets fatigued. Remember, it's supposed to be fun.

This spring we expect to have more public sessions featuring Saturn, Jupiter, the Moon, and other celestial attractions.

Astrophotography Course at VWCC

By Michael Good

The new Astrophotography course at VWCC has been numbered NAS293 in the catalog.

The description on the link below is on the "Distance Learning" site. While not an "official" distance learning course, this course will post all lecture notes online, so they may be downloaded and printed from Blackboard with a normal web browser.

A question has been raised about the software from the book. Yes, it is Windows based. In this regard, lab-work will be conducted as a class exercise, such that students who do not have an IBM compatible PC may still participate.

While graded, due to the nature of the material, this course will NOT concentrate heavily on grades, and instead will be conducted more as a seminar.

It is unlikely that this course would transfer to other institutions at present. In the future, UVa may recognize this course, as it will be developed in conjunction with UVa professors.

<<http://webbed.vw.vccs.edu/distance/NAS295.html>>

Use Your Eyes and Win a Prize!...

Autumn Viewing Challenge

Autumn brings clear skies and fabulous fuzzies high in the sky. Chief among these are the Andromeda system of galaxies.

Your challenge is to see what you can visually capture either with binoculars, or with your telescope — and report back to John Goss by the 23rd of November. We will discuss all the sightings from binoculars and telescopes in the December newsletter.

Binoculars should be used to locate M31 itself, and on M33 (the Triangulum galaxy, a distant associate). As a bonus, look at the Double Cluster in Perseus nearby. Whereas this cluster is within our Milky Way, it supplies a doubly fine view for binoculars. You will be amazed at what you can see with just a pair of binoculars

VAAS Convention Upcoming

The 27th annual Virginia Association of Astronomical Societies convention will be held from 9 a.m. to 4 p.m. on Saturday, November 15, 2003.

The site for this year's meeting will be the Chesapeake Planetarium, located in the City of Chesapeake Municipal Center. It's the same location as in 1999. Your host for this year will be the Norfolk Astronomical Society.

Featured in the speaker lineup are Eric Douglass, who will speak on geologic features of

under dark skies, with a wider field of view than telescopes. Share what you see with John.

For **telescopes**, go for M31, M32, M110, and M33. Also see if you can capture M31's nearby, and somewhat elusive, NGC 147 and 185. Tell John what you could see, and when you saw it.

If you are an astrophotographer, please take a picture of one or more of these objects.

Email your visual reports by November 23rd to John Goss at ecoacres@rbnet.com.

The **prize** you could win goes to the first person who reports to John their successful viewing of either the telescopic or binocular challenge objects. The two winners will each win a fabulous RVAS mug.

the terrestrial planets; **John Goss**, who will discuss our place in the Milky Way Galaxy; and NASA Speaker Michael Uenking, who will talk about Mars exploration.

Weather permitting, special telescopes will be set up for viewing of the Sun in white light and hydrogen-alpha by day. An observing session is planned for the evening.

A web site has been set up for this year's convention at <http://groups.hamptonroads.com/VAAS/>

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Boys' Gizmos...

With today's go-to telescopes, the next few items may be a dying breed. Most amateurs with manual guided telescopes use a 1x finder. **Frank Baratta** brought the popular Telrad and explained its operation with its 2, 1, and 0.5° reticle. This innovation has made locating celestial objects less frustrating and has brought more enjoyment to our hobby. He also showed a "sight tube" and Cheshire eyepiece that are used in collimating Newtonians. Why are these two items on the amateurs endangered gear list? Because of the capability of today's laser collimators to align optics with ease.

What is a good way to look through the telescope and record your observations in the dark? How many of you have experienced holding a notepad, pencil, and red light, while adjusting the focus on the object it just took you 15 minutes of neck twisting effort to find? We only have 2 hands! **John Goss** brought his solution: a home-made, red-lighted clip board.

RVAS Past President **Dave Godman** is always looking for good ways to explain the sky. Dave correctly positioned the tilt of an earth globe so that it accurately portrayed the sun's angle with respect to Roanoke. "Earth on a wedge" is how one RVAS member described this great teaching tool!

The Local Group...

By Genevieve Goss

I am pleased to report that the Gary Close Bequest Committee, representing the wishes of the deceased club member and director of the Hopkins Planetarium, has completed its task.

The committee discussed various ways in which to honor Gary's mission of bringing amateur astronomy to the general public and, especially, to children. It was decided that the Bequest would fund the creation of a banner to be used to identify RVAS at public functions. The

dark-blue banner, designed by John Goss and manufactured at Fast Signs in Salem, will last for ages and will be an attractive advertisement for the club.

A second project involved the printing of a large supply of rack cards with information about RVAS on one side and a "find-the constellation" challenge on the other. These are displayed at public gathering spots such as libraries, observing sessions, and welcome centers. The third activity consisted of the purchase of colorful, beginning astronomy books (with a

2003 publishing date!), to which the committee added a memorial inscription. These have been presented to area libraries and some schools. The remaining money in the bequest will become part of the RVAS treasury for use in club activities.

Just in time for your holiday shopping.....RVAS is selling club coffee mugs for \$5.00. These mugs will also be used as a "thank you" gift to guest speakers. So, support your club by making a purchase at the next meeting or by calling John Goss.

Good Things to Know and Do...

Don't Be The Last Kid On Your Block To Own An RVAS Embroidered Item!

Did you miss out on the last RVAS clothing bananza? Now is your chance to have your favorite article of clothing embroidered with the RVAS logo that you've seen your friends wear!

The embroidery cost will be between \$6.50 and \$3.25 depending on the total number of items. Contact John Goss, ecoacres@rbnet.com, or 966-4606 for details.

Clear Sky Clock Moved

Many of us rely on the usually accurate Clear Sky Clock for

helping schedule trips to the Cahas Mountain Overlook. On October 24th that web site became temporarily unavailable, but it is still in its full glory.

So change your boobook from the old address to this one: <http://66.78.6.237/~clearday/c/ChsMtnOvVAkey.html>

RVAS Survey 2003

The RVAS 2003 Survey has been mailed October 16. Your prompt reply would be appreciated.

As of October 26 we already had received 17 survey replies — that's over 20%, not bad! Lets keep them coming in. We appreciate your support.

Catch a Comet on the 22nd

This November 22nd, a scheduled club session at Cahas, you may be able to see the elusive comet, 2P/Encke.

It will have just passed south through the "clothes hanger" asterism of sixth-magnitude stars in Vulpecula, near our favorite double, Albireo.

The comet's short tail will be pointing toward the asterism, away from the Sun. It will be at magnitude 8.4, moving toward the Sun at 84.3 million miles from it, and at 25.3 million miles from Earth.

Its coordinates will be RA 19: 23.0, DEC 19:30.8.

Society Calendar of Events and Activities for November

NOVEMBER MEETING: Monday, November 17th, 7:30 p.m. fifth floor meeting room, Center in the Square, Roanoke. Our program will be led by Isaac Campbell, who will discuss deep sky observing techniques, including some very special objects for beginners, intermediate, and advanced observers. The November constellation is Perseus, and Katherine Hix invites members to also talk about their experiences with objects in this constellation.

"MEMBERS ONLY" WEEKEND OBSERVING SESSIONS: Unless otherwise noted, observing sessions are held at Cahas Mountain Overlook, milepost 139 on the Blue Ridge Parkway.

-- **Friday and Saturday, 14th and 15th.** Sunset is at 5:10 p.m. Astronomical twilight ends at 6:40 p.m. The Moon rises at 9:26 and 10:28 p.m., respectively.

-- **Friday and Saturday, 21st and 22nd.** Sunset is at 5:06 p.m. Astronomical twilight ends at 6:37 p.m. The Moon sets at 3:40 and 4:13 p.m., respectively.

-- **December Sessions:** 12th and 13th; 19th and 20th.

FRANKLIN CO. PARKS DEPT./RVAS PUBLIC STARGAZE: Saturday, November 15th, 5:45 p.m., Franklin Co. Recreational Park. Free. Call 540-483-9293 to register. (Next session: March 13th, 7:15 p.m., Franklin Co. Rec. Pk.)

ROANOKE CITY PARKS DEPT./RVAS PUBLIC STARGAZE: Saturday, November 22nd, 5:30 p.m., Cahas Overlook, milepost 139, Blue Ridge Parkway. Free. Call 540-853-2236 to register. (Next month: December 13th, 5:30 p.m., Cahas Overlook.)

RVAS EXECUTIVE COMMITTEE MEETING: Meetings are now held the first Tuesday of each month; contact one of the officers regarding specific location and time information.

Roanoke Valley Astronomical Society
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