



Roanoke Valley Astronomical Society



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

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April 2004

Celestial Tastes Revealed

By Vincent van Gogh,

At the March meeting of RVAS all attendees were "asked" to write down their favorite category of celestial objects; their favorite object within this category; and if there was one object they would most like to see, but haven't yet. Twenty-one responses were gathered, and this comprises a good snapshot of what we amateur astronomers like to see.

As might be expected, everybody has a different take on the heavens. Some of the differences can be explained by equipment at hand; but a significant portion of the variance is aesthetic. For example, some of us like bright points of light, and some like to chase faint fuzzies. Some like the colors of lunar and planetary images, and some like to simply get outdoors and enjoy whatever is available within current seeing conditions.

The key to all this is simple: Amateur astronomy is a pleasurable hobby open to everybody at every level. The skies are not "fixed," as star charts would indicate, because seeing conditions vary by the

season and hour. There are also events such as eclipses, occultations, meteor showers, aurorae, and Iridium flares to entertain us. Mostly, when we gather at Cahas or elsewhere, there is camaraderie as we freely share our equipment and swap big lies about what we have previously seen!

The twenty-one responses covered several areas. In no

acteristics." **Isaac Campbell** is a planetary fan, favoring the Saturn Nebula, because "much structure and detail can be seen in this beauty." Isaac has an excellent 15" Dob, but what really spoiled him was having the opportunity months ago to see it through a 61" telescope!

Also faint and fuzzy are GALAXIES: **Michael Good** loves the idea of great distances and



particular order, we start with PLANETARY NEBULAE: **Dave Reese** likes planetaries because they are unique and diverse, and challenging to observe even with his 17.5" Dobsonian. His favorite is Jones-Emerson 1 in Lynx. "It is a unique ring-type planetary, fairly large, with bipolar char-

intricate structure. His favorite is the favorite of many of us, M51. **Ed Stinson** loves the beauty and mystery of galaxies in their great numbers, and "we have so much to learn about each of them." He is drawn to galaxies in collision, and galaxies with ac-

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Mastering Ourselves...

By Clark M. Thomas

Both through play and work we seek to master ourselves. We are all born with potential greatness, and ideally will spend our lives fully actualizing our gifts. As we

Mystery Object

You'll BUBBLE with enthusiasm when you guess this gassy sky object. Not far from M52 too.

Send your best guess to Dave Thomas, our Mystery Object Columnist, at

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astronomers master the skies we also are mastering a part of ourselves. Our path to enlightenment runs partially through the light we see in our heavens.

The finest local example of this stellar journey is the achievement of the Master Observer Award given this March to **John Goss** by the Astronomical League. Amazingly, out of the several hundred thousand serious amateur astronomers, John is only the twenty-fifth person ever to have achieved this plateau.

We in Roanoke are very blessed to have such a resource. And, I might add, this editor is grateful for all the voluntary contributions

John and his wife have made to the newsletter...OUR newsletter.

John had to complete ten viewing programs to qualify for his award. These programs vary widely, and completion of them indicates that one is a highly versatile observer.

The point I would like to make is that John started out with just one observing program. Most of us try first for the Messier list. Even if all we accomplish in our lives is one list, or maybe a couple more, it leads us to a greater awareness of who we are within the universe. That is no minor achievement! Let's share our love for this unique hobby with everybody else.

Astro-Quiz

Years before formulating his laws of planetary motion, Johannes Kepler had a revelation that explained the spacing between the orbits of the planets. He called it the "Cosmic Mystery." What was his revelation?

Answer to Last Month's Astro-Quiz: Its clear-headed, unbiased image notwithstanding, science often falls prey to human foibles. As a case in point, women astronomers have struggled hard against the condescension and discrimination of their male counterparts. For instance, until the early 1970s at Mount Wilson they were forced to stay in a small, unheated cottage without hot water, while males stayed at the heated "monastery" with warm showers. At Mount Palomar, women were long denied use of the great instruments. The reason given was that there was no women's bathroom at the telescopes.

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).

Old Fashioned Star Party...

By Michael Good

Many military leaders throughout history have employed the "forced march". So it is with my introductory astronomy courses. The students are FORCED to "march" up to my home, and now my observatory, at least one clear night in the semester, and do the "visual thing."

This is fairly easy to coordinate with my Tuesday night class, but problematic with my Saturday morning Radford class, as only the sun is visible Saturday morning. So when we were treated to a warm



and BLUE sky at the end of February, I invited the Radford class, spur of the moment, to head up that night for an observing run, and further invited them to bring their spouses and kids.

Twelve of my students could come, (two more came Monday night), and with kids (toddler thru teen), their spouses/friends, and several of my neighbors, we had about 30 people crawling around Mike's Place Observatory! The 8x8' observing deck held a fair number of people, despite having the "casket" (Mr. Cafrey's Newtonian box is stored here) on the south wall.

We took a predictable tour of the brighter planets, moon, and deep sky — but it really took folks a while to cycle thru to the eyepiece. Factor in the kids who were having fun opening the warm room storm door on observer butts, and my dog who can't keep his

nose away from privates, and you could argue my students had passed a fraternal indoctrination or rite of passage.

We saw a "1st quarter" Venus, gorgeous 1st quarter moon (see above), Saturn in full regalia, M42 with her arms outstretched, and a fuzzy Jupiter low on the eastern horizon.

One student brought a Roanoke City earth sciences teacher. Most of the attendees had never looked thru a telescope of any size, much less the fairly reasonable views this evening afforded with the 10" LX200 (although seeing deteriorated and cirrus moved in later).

If you own a telescope, even a modest one, and have never tried it, invite first-timers over for a private star party: The chorus of "Oh my God!" and "I can't believe you can see that!" will warm the cockles of your heart.

Last Month's Mystery Object

The mystery sky object for the month of March was NGC 2112 in Orion.

It is a open cluster located at the top of Barnards loop on the eastern side of Orion.

The cluster is at R.A. 05h 54.0s and glows at magnitude 9.0, and is visible in binoculars.



A Hot Meeting in a Cold Month

By William Herschel,

The cold-weather March meeting of the RVAS was packed full of hot astronomy topics!

The kits for the **Night Sky Network** arrived and two of them were described by John Goss. The first is primarily a monthly star map that has the stars circled that have known planets. This would be used at skywatches to point out stars with other worlds to the public. The second kit demonstrated a method astronomers use to detect stars that have orbiting planets. This is the wobble technique - simply, a star with a massive planet orbiting it will wobble slightly as it moves through space.

Recognition was given by the RVAS to **John Goss** for his recent **Astronomical League's Master Observer award**.

Over the past 8 years, John has received 10 observing pins and certificates beginning with the Double Star Club and ending with the Caldwell Club. Once a wide variety of objects has been observed, the Astronomical League presents this award to acknowledge the hours, the trials, and the pitfalls that makes an accomplished observer.

There is a real "appetite" that the public has for the night sky. Due to a miscommunication, the March 13 Franklin County Parks Dept./RVAS public stargaze had many more attendees than normal. Luckily, **Frank Baratta** had

assistance from **Katherine Hix** showing 55 hungry beginning stargazers the March sky. There is a demand for public outreach!

One of the least observed showpieces in the sky is the huge globular cluster Omega Centauri. Since it culminates at only 5°, most RVAS members miss it every year. At 2:30 am on March 6, **Paul Caffrey** and **Clark Thomas** were determined to bag this elusive spring quarry. Dimmed by atmospheric haze, their telescopes still showed a sight worth seeing. Paul and Clark could well imagine what it looks like from lesser latitudes.



March is a great time of year to view winter's sky treasures while waiting for the galaxies of spring to rise. There are plenty of big, bright open clusters to be viewed. Why not try for the first time, or visit again, the Auriga clusters of M36, M37, and M38? Or how

about the Double Cluster, or large M35 lying at the foot of Gemini? If you enjoy nebulae, first view M42, the star forming region in Orion, and then look at M1, the supernova remnant in Taurus.

Floyd County has many dark areas suitable for amateur observing. **Sherwin Brady**, a County resident, has taken advantage of that by designing an observatory near his home. The result of his patient efforts is that a 12 sided rotating dome is being assembled above a concurrently constructed lower room. Sherwin has crafted each component individually. This labor of love will be a wonder to us all when it is completed this summer!

The Blackwater Farm Observatory, built by **Paul Caffrey**, is both manufactured and custom built. Paul wanted something that was of simple design, cheap and quick to build, while providing an observing shelter. He decided on a modified Lowe's utility shed with added structural support, a rock solid concrete telescope pier, and an independent floor system.

The people living near Poage's Mill have an observatory in their midst. Mike's Place Observatory (MPO) was a massive undertaking by **Mike Good**. The end product of all the excavating, trenching, concrete pouring and framing was a place where steady image gathering can be done with "ease" and in comfort.

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tive black holes. He is looking forward to seeing the most distant planets and more star clusters. **Dennis Stevens** loves both galaxies and star clusters. He likes things that are different, but he also likes our familiar Andromeda Galaxy. Spiral galaxies in general are his future targets.

Staying with the faint and fuzzy theme, NEBULAE are the major attraction for **Mike Haynte**. He loves their incredible variety, and loves M42 because of its size, and the Ring because its symmetry. He is looking forward to some day seeing the Horsehead Nebula. (Good luck Mike! Your editor could not see it on his first try, even with an H-beta filter.) **Michael Overacker** loves diffuse nebulae for their challenge, and for their ability to appear differently through different filters. M42 is his favorite. He too is trying to see the Horsehead, and even imagined that he saw it through your editor's scope! **Mark Hodges** likewise loves nebulae. He loves the Orion and Veil nebulae for their size and beauty. His dream target would be the Magellanic Clouds. But these "clouds" are not visible from Cahas, even on a very clear night. **Dave Thaler** joins the legions of admirers of M42, for its shape, its stars, and its colors.

STAR CLUSTERS attract many of us, for obvious reasons. Your editor loves GLOBULAR

CLUSTERS most of all. Among the other admirers are **Frank Baratta**, partially because his 15" Dob does especially well with this class of object. His favorite is M22: "It is an extremely large example of globulars, and its loose structure provides an incredible sense of depth and see-through." He too wants to see the Magellanic Clouds. **John Goss** loves globulars with their large number of stars that can be resolved. The larger the scope, the deeper into their cores one can see. His favorite is M5, an appetizer for the many globulars waiting to be seen in summer in Ophiuchus, Scorpius, and Sagittarius.

Another very common category of star groupings is OPEN CLUSTERS. **Paul Caffrey** is drawn to their beauty in wide field views. His favorite is the stunning Double Cluster. His dream is to see the southern sky, including South Pole objects.

Moving from giant aggregations to MULTIPLE STARS is what moves several of our membership. **Katherine Hix** likes close doubles, but really likes anything she hasn't seen before! (Spoken like a true amateur, one who literally loves what she sees.) She also has her sites on the faint fuzzies of the Messier list in the Coma-Virgo region. Maybe this spring will be her time to finish up this fundamental challenge!

Bill Green loves double and multiple stars too. It can be a challenge to both locate and split close doubles. His favorite is the multiple, Epsilon

Lyra. He has many more stellar challenges in his future, as we all do.

Rand Bowden loves VARIABLES, because they are relatively rare. His favorite is Algol, the "devil star" in Perseus. "It is the most obvious, and can be seen with the naked eye, and shared with other non-astronomy buffs." His ideal visual target would be the lunar landing sites of manned missions. (The landing sites are there, Rand, but the little green men have already stolen our equipment.)

PLANETS attract us all, including **Ann Onymous**. She likes their ease of location; and especially loves sharing Saturn with her family, neighbors and friends. She wants to see the Horsehead some clear night. **Blake Lipscomb** is entranced by giant Jupiter, and loves watching the Galilean moons move about. He wants to see an Iridium flare. **Mark Klosinski** is entranced by everything in our solar system, because "it's close to home." He loves Jupiter, as we all do, and likes the fact that its moons are accessible to binoculars. He wants to see as many asteroids as possible.

In the CATCH-ALL category we all reside. **Andrea Mulsick**, daughter of John and Genevieve Goss, lives in visually challenging New York City. She's grateful for anything at all that makes it through those bright skies! Her favorite, given dark skies, would be M42. **Genevieve Goss** loves aster-

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Celestial Tastes

isms, those star groupings that come to our minds from this time and place. Her favorite is the "coat hanger," because "it usually evokes cries of disbelief when observers first sight it." She still hasn't seen Omega Centauri, but I'll bet she'll see it this year as it creeps just five degrees above our southern horizon.

Bruce Jones is challenged by earth-orbiting objects, which can sometimes be seen by a small scope. He has a go-to, and loves anything he can see — spoken like a true amateur astronomer.

Items of Note

* **Richard Zue** is selling his fine 12" Meade scope. Anybody with aperture fever and cash to match it? He's at TerpsAlum@cox.net.

* **Mike Overacker** has come up with yet another web page, and it is a dandy: clearskyclock.com Go here for all three viewing forecasts for sites in our area on one page.

* Have you ever wondered why those bluish-white head lights are so blindingly bright, yet still legal? There is a simple solution to the mystery, as we astronomers already know. Read about it at this page: members.cox.net/clark7/lights

* See Mercury NOW: <http://www.msnbc.msn.com/id/4609424/>

* Would you like to achieve fame and glory as an RVAS newsletter contributor? Easy! Just send Clark an email: clark7@cox.net

Cold Clear Cahas

By Mike Overacker

I am always watching the weather. I am always watching the skies. This year, it seems I am always watching clouds. This winter has been cold, snowy, and long. But this past Friday, March 19th, 2004, the skies would be clear, and the temperature just bearable. I caught a message on the fabulous RVAS Forum that **Gary Hatfield** was going to partake of the viewing on the Blue Ridge Parkway at the Cahas Mountain Overlook.

Gary, being a fellow RVAS member and astrophotographer, would be a good person to observe with, so I loaded my scopes and headed up the mountain. I had hoped to leave earlier than I did, but I was trying to get another RVAS member and longtime friend to join us. He was going to a movie, but said he would be up around 9 p.m.

Gary was setting up as I arrived. I unloaded and set up my Meade SCT's. The 8" LX200 would be on a wedge and piggybacking my Canon 10D Digital camera and 480MM f2.8 lens. The 10" Meade LX200 would be set up Alt/Az and used for my Messier list attempt. I was also prepared to set up my 6" AR6 refractor with a CCD for planetary imaging on my laptop. Things never go as planned, and I was missing a power supply for the SCT's, so I punted and just used the 10" for my Messier hunt. It

was for the best, because that is when the fun began: **Mark Hodges** rolled in with his 11" Celestron. **David Thaler** brought his 8" SCT scope as well. **Clark Thomas** showed up with his new 16" Dob, and **Frank Baratta** brought his 15" Dob. **Isaac Campbell** arrived later in the evening with his 15" Dob. Gary had his 10" Dob and the SV78 that he was using for imaging. Along with my aforementioned scopes, I had my Orion ED80 as well.

So, the total was 3 refractors, 4 Schmidt Cassegrains, and 4 reflectors totaling 102.5 inches of viewing aperture at the overlook. Wow!

The skies were pretty good. The transparency deteriorated as the night progressed, but good hearted jabs were flying around, and the laughs that accompanied them kept getting better. There is a lot to be said for large groups viewing together. You get to look at other scopes, through other eyepieces, and gain knowledge about other objects that are available for viewing.

Isaac showed me several external galaxies that I have never viewed before. Mark was giving everyone who wanted to look great views through his new Denkmeier Binoviewers. Those binoviewers are great. Frank had a spectacular view of M51 in his Dob. Clark's new Dob had a stunning view of M42, and a killer view of the

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The Local Group

By Genevieve Goss

Status, rank, position....life is all about numbers! Did you know that RVAS members are counted among more than 20,000 members of the Astronomical League? In the 300+ clubs in the League, RVAS ranks in the top sixth based on membership numbers. In fact, we are the second largest club in Virginia ---#1 being NOVAC (**Northern Virginia Astronomy Club**) which is the second largest astronomy club in the nation. In true Texas style, the **Texas Astronomical Society of Dallas** has the most members. These large clubs are the exception to the rule though. The majority of the clubs of the AL number in the 30-40 member range.

Please consider for a moment what some small clubs have achieved:

The Stonebelt Stargazers of Bedford, Indiana, a club of 41 members, opened a small observatory in their town of 13,768 people. They host regular observing sessions there and at nearby Spring Mill State Park. Their activities for Astronomy Day 2001, the first year of their club's existence, earned them 1st place in the national Astronomy Day award given by Sky & Telescope and the Astronomical League.

York County Astronomical Society, with less than 40 members, hosts the annual Mason-Dixon Star Party,

a 4-day event with an average attendance of 300 people. It is also the site of the annual meeting of MERAL, the Mid-East Region of the Astronomical League.

Central Appalachian Astronomy Club of Clarksburg, WV, a fledgling organization with fewer than 30 members, joined forces with the **Kanawha Astronomical Society** to host the Blackwater Falls Astronomy Weekend. They recently co-hosted the MERAL Manager's Retreat for ALCors in Green Bank, WV, and have just announced the Green Bank StarQuest, a 4-day star party to take place this July in West Virginia.

The Charlottesville Astronomical Society, a club of about 40 members, hosts VAAS (Virginia Association of Astronomical Societies) every 4 years. (By the way, CAS will be hosting VAAS this October, and RVAS will be hosting it next year.)

The Barnard-Seyfert Astronomical Society of Nashville has about the same membership size as RVAS. They hosted last year's convention of the Astronomical League, the annual Tennessee Star Party, an annual Messier Marathon, presentations for Sun-Earth Connection Day and a mentoring program for beginning astronomers.

This is not to say that RVAS is a dormant club! Volunteers at public outreach sessions

include **Frank Baratta, John Goss, Katherine Hix, Mike Overacker, Mark Hodges, Paul Caffrey, Dave Godman, Isaac Campbell, Carol Mesimer, Mahesh Tailor, Richard Zue, Jeff Suhr, Bruce Jones, Bob Smith, Michael Good** and others. RVAS is participating in the Night Sky Network outreach program.

However, perhaps we could do more. Let's be thinking of other ways we can share this exciting hobby with fellow astronomers and the general public.

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Cold Clear Cahas

Horsehead Nebula. <GRIN> Gary borrowed one of my Siebert 2" eyepieces to use in his Dob. Everyone started to scatter around Midnight, but Isaac and Mark stayed out late to see Omega Centauri and watch Antares in Scorpio rise.

I think everyone had fun, and those who missed this session, well, you missed it. If you haven't been to one of these observing sessions, you are missing a golden opportunity to expand your knowledge about astronomy. These gatherings are free and FUN! Try to attend them if possible.

Oh yeah, my friend never showed up. He missed it too.

Society Calendar of Events and Activities for April 2004

APRIL MEETING: Monday, April 19th, 7:30 p.m. fifth floor meeting room, Center in the Square, Roanoke. Dr. Dwight Holland will speak on the following topic: Medical, Psychological and Group Dynamics Issues, with the MIR/Progress Near-Disaster as an example, and other concerns for Human Long-Duration Spaceflight including Little Known Anecdotes such as: "How do you go to the bathroom in space?" (Real footage of the MIR-Progress crash as it occurred will be shown).

"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, April 9th and 10th. Sunset is at 7:51 p.m. Astronomical twilight ends at 9:22 p.m. The Moon rises at 1:14 and 2:19 a.m., respectively.
- Friday and Saturday, April 16th and 17th. Sunset is at 7:57 p.m. Astronomical twilight ends at 9:30 p.m. The Moon sets at 5:14 and 6:17 p.m., respectively.
- May Sessions: 7th and 8th; 14th and 15th.

FRANKLIN CO. PARKS DEPT./RVAS PUBLIC STARGAZE: Next session: May 8th, 9:15 p.m., Franklin Co. Recreational Park.

ROANOKE CITY PARKS DEPT./RVAS PUBLIC STARGAZE: Saturday, April 17th, 8:30 p.m., Cahas Overlook, milepost 139, Blue Ridge Parkway. For City, County and other area residents. RVAS members welcome to participate. Call the RVAS Message Line, 540-774-5651, for information. (Next session: May 15th, 9:15 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.

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