



Roanoke Valley Astronomical Society

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



Vol. 20 - No. 10

October 2003

Blue then starry skies...

Annual Picnic Picks Perfect Day

By John Goss

Earlier in the week, it appeared that there was a good chance that the 2003 RVAS picnic would be disrupted, if not canceled, due to the incoming Hurricane Isabel.

Earlier in the day, people began arriving at the Franklin County Recreational Park. Picnic tables were arranged, the charcoal was lit, and the food was placed. Thanks to RVAS cooks **Mark Hodges, Richard Zue, and Lynn Slonaker**, the searing sounds of grilling hamburgers and hot dogs meant that dinner was almost ready. No one has yet come away hungry from a Society picnic, and this year was no exception. There was plenty for all: from cut vegetables to cake, from salads to fudge, from beans to cookies, from...well, you get the idea.

As dinner progressed, the noise level kept rising. This was a great time to catch up on old friendships, and to make new ones. In the middle of it all, **Dave Godman** passed out tickets for the door prizes. Books, calendars, posters and mugs awaited the

lucky winners. This year RVAS President **Paul Caffrey** and his daughter **Deirdre** did the honors of drawing tickets and distributing prizes. The winning tickets began with **Gary Hatfield**, and ended with **Richard Zue**, with many lucky others in between. Thanks go to all those who donated!

A surprise was left for the end. Every hobby needs someone who will take the time and make the effort to attract newcomers. For amateur astronomy in the Roanoke area, that person for many years has been **Frank Baratta**.



Paul hands Frank his "green gun."
(Photo by Mike Overacker)

With his popular Roanoke City and Franklin County sky watches, Frank has introduced the night sky to many a city

dweller. He has enriched the hobby and brought people to the RVAS. In appreciation of this, the Society presented Frank with a new green laser pointer. At sky watches everyone wants to know where things are in the sky, which stars are what, or where satellites are headed. This little green tool will point the way!

Members had their first opportunity to purchase the new batch of RVAS 11-ounce coffee mugs. Twenty were sold, but don't worry there are a bunch more. They will be available at upcoming meetings for those who didn't pick any up at the picnic. Please support your club with this \$5 mug!

Shortly after dinner the telescopes began coming out of their vehicles and on to the observing field. There were short tube reflectors and refractors. There were Schmidt-Cassegrains. There were Dobsonians, large and small. The award for the largest scope of the night went to **Isaac Campbell's** 15-inch Discovery. This baby always gives winning views!

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Chesapeake Bay Impact Crater

By Clark M. Thomas

Thirty-five million years ago a visitor from space rudely crashed into Tidewater Virginia at Cape Charles on the Eastern Shore. The crater looked like what we

often see on the Moon with a new crater like Tycho, having a central peak. This one, however, was immediately filled in with salty sea water, and later with debris; and the ancient peak is now well below ground. Beach visitors haven't a visual clue as to what is below their feet.

Our crater is sixty miles wide! Giant tidal waves blasted the Blue Ridge Mountains. Luckily, no humans were around for this awesome day of destiny. Even now the effects of this space rock or comet can be felt in the region:

First, we note on the map how the James River takes a sharp left turn in the direction of Cape

Charles as it meets the Bay, instead of continuing its southeast direction. This turn allowed for the Hampton Roads naval base to exist. No crater, no Navy.

Second, drinking wells within the crater produce only brackish water. No matter how deep you drill, it's salty brine. That's one of the reasons why Virginia Beach was so eager to get some of our Roanoke River's water.

To learn more about this event see the series of articles written in 2001 by Diane Tennant in *The Virginian Pilot*. The web page for this series is <http://www.hamptonroads.com/pilotonline/special/meteor/>

Mystery Object

Can YOU identify the unusual object below? Hint: "Think salt." Email your best guess to Dave Thomas, our Mystery Object Columnist, at

thomasde-ka8inl@worldnet.att.net



Astro-Quiz

Facing northward, you see Polaris, the North Star, at a certain elevation above your northern horizon. What does Polaris' height or angle tell you?

Answer to Last Month's Astro-Quiz: Last month, we imagined standing on the north pole of the Moon and looking back toward Earth. If we saw the right-hand half of the Earth sunlit and the left-hand half dark, then what would be Moon's phase as viewed from the Earth? Seeing the right-hand half of the Earth illuminated means the Sun is off to your right. Therefore, a person standing on the north pole of Earth looking back at the Moon would see the Moon's left-hand half illuminated. The phase of the Moon when this half is illuminated is called "third (or last) quarter." The Moon at this phase rises about midnight, as seen from Earth.

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 Through The Clouds...

By Mike Overacker

It was a typical week of anticipation for me. I really look forward to the public stargazing sessions. I love to talk to people, and I love to take their interest and try to move it to the next level — a level where they might consider joining the RVAS and possibly getting a telescope to advance their interests. As the week progressed, the forecasts were good for Friday,

Last Month's Mystery Object

Last month's Mystery Object is around 240,000 miles from Earth, and has been there since about 1974. The crew of Apollo 14 left it behind on the Moon as part of their science experiments.

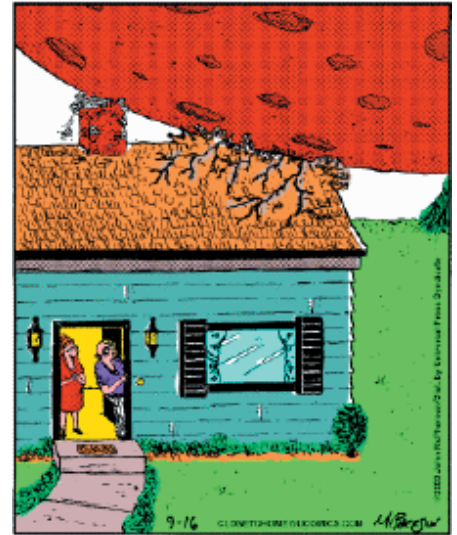
Known as LRRR, LR3, it is a Laser Ranging Retroreflector, an optical corner reflector. The purpose is to measure the recession of the Moon from the Earth. It is also used to measure lunar librations and the wobble of Earth's poles. These measurements are made using short-pulse laser ranging. Reflectors were also placed by the Apollo 11 and 15 missions.



and even Friday morning, at about 4:30 a.m., as I returned from an emergency medical call, I glanced up to see Orion in his majestic glory. But alas, I awoke at around 7:00 a.m. to find cloudy skies. That was pretty typical as well. All day long I hoped for the best; but even as a few holes in the clouds opened up in the afternoon it was not looking good for the Mars watch on the Explore Park spur road. The gathering was canceled, as it should have been, given the overcast skies. However, being the eternal optimist when it comes to stargazing, I informed John, Mark, Clark, and others that I was going up anyway in hopes of some clearing.

I expected to see a few people at the overlook. I expected to see the hopeful, the people looking for a few holes in the clouds. I arrived to be greeted by an older couple, telling me that they observed Mars in the southwest sky. I took me by surprise for a moment until they said that they see it in the morning when they visit the overlook. That made sense, as they were observing the setting Mars.

Soon there was a gathering of about ten people at the overlook, so I decided to set up one scope. I set up the Meade AR6 refractor, as it has been giving me tremendous views of Mars. When I was nearing the completion of my set up, I stopped to look around, and to my amazement, the crowd



“They say this is the closest Mars has been to Earth in 60,000 years.”

had grown to about 35 people. This was way more than I had expected to see, and they were very willing to wait for an opening in the cloud cover.

We continued to talk, and people looked at the telescope. As interest in looking through the telescope at something, at ANYTHING, grew, I turned the scope to the top of the tower on Mill Mountain so visitors could look through a scope. Then I received a question from the crowd that I never expected to hear. Can I see Mars in the telescope now?

Of course, I replied that it was cloudy. But, you have a telescope. **Can't your telescope see through the clouds?** I didn't know what to say at first, trying to be diplomatic, but I answered as politely as I could.

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Clouds and Mars...

I explained that telescopes can only enhance viewing of objects that can be seen with the eyes. If clouds block the seeing with your eyes, it also blocks the seeing with a telescope. With that answer, about six people left. I realized that several people had the impression that optical telescopes could see past the clouds and into the vast starry night.

As the night went on people came and went, hoping for a glimpse of Mars. I tried to keep count, but people were arriving and leaving so fast I couldn't. I counted 78 people, but I know I probably missed about 20 — so nearly 100 people showed up on a cloudy night for a chance to look into the night sky at Mars.

The vast majority asked if another watch was going to be scheduled. Many asked me if they sent me their email address, would I notify them the next time I set up my telescopes? I told them that I would do that for them. I have received emails from some of the visitors that night.

On a personal note, I am a bit surprised that the RVAS does not have an independent outreach program. We have sessions through the Roanoke and Franklin County Parks and Recreation Depts., and events associated with the Science Museum of Western Virginia. However, outreach programs run by the membership in the RVAS are in short supply.

I have discussed this with several members, and the feedback I have received is that the membership does not have time to do these programs. I stay very busy, however I feel that I can make some time for this purpose. **How about you?**

To keep our treasured knowledge to ourselves seems like a wasted opportunity to teach the future generations what we have learned. Our legacy in our group is what we pass on to others. The only way any outreach program can work is if we have a large support base of members to help spread out the load.

Get Ready for Our Oct. 20th Meeting!

The next RVAS meeting will feature our favorite gadgets and techniques. This will be a member-focused meeting. Your assignment is to bring to this meeting anything you rely on to make your stargazing special. Share this with us!

Do you have a special eyepiece, or maybe some cool star maps, or maybe a finder, or even a technique that you would like to share? Say it or show it. If it's too big to carry to the meeting, show us a picture of it.

Be creative... How do you keep your feet warm? How do you arrange your accessories? Tell us your secrets, and we'll all have fun sharing.

Also, Katherine Hix will show us everything about Aquarius, the constellation Mars is now visiting.

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Annual Picnic...

As darkness ensued...the observers saw the International Space Station pass just above the eastern horizon and enter into the earth's shadow. Let the observing begin! Everyone looked at Mars. They couldn't help it as the Red Planet was the most commanding presence in the sky. Even veteran observers wanted one more peek before it fades to obscurity again. The steady seeing also brought good views of tiny Uranus, just above bright Mars. Not all viewing was through telescopes. September presents some of the best skies for just lying back on looking up: the Summer Triangle, Cassiopeia and Andromeda, and Aquila and Scutum just for starters.

Deep sky objects were not left out of the mix. The Messiers of Sagittarius attracted **Dennis Stevens** and **Katherine Hix**. There certainly is an overabundance of celestial attractions in the southern Milky Way: M8, M17, M20, M22, M23 to name a few. Always a crowd pleaser, M13 in Hercules, was zeroed on by **Frank Baratta**.

One great thing about RVAS stargazes is that the experienced help the novice. Once again, everyone came away knowing something new or different in the heavens above. With mist and dew forming, another RVAS Picnic and Stargaze was brought to a successful conclusion. See you in September next year!

The Local Group...

By Genevieve Goss

The proximity of Mars has given RVAS members and the general public an incentive to get outside and observe.

Despite less-than-perfect viewing conditions, I have noted that **attendees at public observing events seem delighted with an excuse to be outside in the dark under safe conditions.**

We who congregate in the dark tend to forget about those who live in such light-polluted environments that they are unable to tell whether the night sky is cloudy or clear (as witnessed by the hundreds who turned out to

see Mars at the Explore Park overlook on an evening when the event had actually been cancelled due to clouds!)

With our safety-in-numbers protection at club viewing events, we offer the public more than a chance to look through a telescope. We offer a ticket to an experience they might never know otherwise, that of being outside under very dark, starlit skies.

We offer **children** the chance to learn of the wonders of the universe, and **adults** a chance to recapture that mind altering feeling of viewing the Milky Way and imagining one's tiny position in it.

Mostly we offer camaraderie born of being a part of a small group of earthlings gathered together looking beyond our planetary realm.

Upcoming events:

MASP (Mid-Atlantic Star Party) October 21-27 (or portions thereof) in "Dark Park" south of Robbins, NC
<http://www.masp.org/>

Blackwater Falls Astronomy Weekend October 24-26 in West Virginia
<http://www.kvas.org/AstronomyWeekend%202002.htm>

VAAS (Virginia Association of Astronomical Society), November 15, Norfolk, VA

800 Civilians Look Through RVAS Telescopes!

By Mark Hodges

Katherine Hix, Mike Overacker, and myself arrived at the overlook, Friday the 26th of September, at about 7:45, and there were about six people already there. We began to set up as more people were arriving. **Matt Maness** showed up a few minutes later and began setting up while the rest of us began looking at Mars.

At first we had to fight some clouds but they cleared out. **Paul Caffrey** also joined us a little after 8:00. By that time we were beginning to accumulate quite a crowd. **Mike Good** also came down, and he and Paul were interviewed by a reporter from the newspaper.

I estimate that we had at least 150-200 people there at any one time, and probably around 800 all total.

Although the seeing wasn't very good, it was clear. Everyone was very impressed with the views, and appreciated the fact that we were there for them.

Thanks go to *The Roanoke Times* for their Sunday article on page B3. You can also read Shawna Morrison's article about this night at: <http://www.roanoke.com/roatimes/news/story156021.html>



Society Calendar of Events and Activities for October 2003

OCTOBER MEETING Monday, October 13th, 7:30 p.m., fifth floor meeting room, Center in the Square, Roanoke The evening's program will be a "show and tell." See article elsewhere in this newsletter for all the details

"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, 17th and 18th.** Sunset is at 6:40 p.m. Astronomical twilight ends at 8:07 p.m. The Moon rises at 11:36 p.m. and 12:37 a.m., respectively
- **Friday and Saturday, 24th and 25th.** Sunset is at 6:31 p.m. Astronomical twilight ends at 7:59 p.m. The Moon sets at 6:15 and 6:47 p.m., respectively
- **November Sessions** 14th and 15th; 21st and 22nd.

FRANKLIN CO. PARKS DEPT./RVAS PUBLIC STARGAZE: The next session is November 15th, 5:45 p.m.

ROANOKE CITY PARKS DEPT./RVAS PUBLIC STARGAZESaturday, October 18th, 7:00 p.m., Cahas Overlook, milepost 139, Blue Ridge Parkway. Free. Call 540-853-2236 to register. (Next month: November 22nd, 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
740 Arbutus Avenue
Roanoke, VA 24014-2504