



ROANOKE VALLEY ASTRONOMICAL SOCIETY



NEWS ABOUT AMATEUR ASTRONOMY IN SOUTHWESTERN VIRGINIA

<http://www.roavas.org>

Vol. 19 No. 9

September 2002

ANNUAL EVENT, SIGN UP BY SEPTEMBER 23RD

RVAS Picnic On September 28th!

Once again, we're heading to the Franklin County Recreational Park for our annual RVAS picnic on Saturday September 28th. The park is 35 minutes south of Roanoke's Tanglewood Mall and offers the best facilities around. (See map elsewhere in this issue.) The lighted pavilion we've reserved has picnic tables, a large grill and convenient parking. Restrooms, a children's play area and a large observing field are adjacent to the building. Tennis courts and fishing are only a brief walk away.

Party time is 3:00 p.m. Dinner at around 5 p.m. As usual, the club is providing the hamburgers, hot dogs, condiments, soft drinks and ice. We'll

also provide the paper plates, plastic utensils and cups. Each member is requested to bring a side dish, salad or dessert (and serving utensils) to share with the group.

The moon in its third quarter on September 28th and rises at 11:23 p.m. So from sunset at 7:08 p.m. until 11:23 p.m., we'll have dark skies. Just after sunset, a bright crescent Venus will be low in the west. After twilight ends, the summer Milky Way will cross directly overhead, providing clusters, planetaries and globulars galore for our viewing pleasure.

Seasoned observers will assist new members and beginners in setting up

and using their new telescopes.

If you haven't made plans to join us for this great yearly event, don't put it off any longer. In order to have enough burgers and hot dogs, **you must register by Monday, September 23rd! Call the RVAS message line at 540-774-5651 or email Paul Caffrey at caffrey@rev.net.** We'll need the number of adults and children who will be coming with you and what food items you'll be bringing.

In case of inclement weather, picnic information will be available on the RVAS Message Line at 540-774-5651 beginning at 12:30 p.m. on Saturday, September 28th.

Franklin County Observing Session

Once a quarter, at the Franklin County Recreation Park, Frank Baratta hosts an RVAS Public Stargaze. Frank also conducts the public stargaze sessions monthly for the Roanoke City Parks. We should be proud that the public gets such a positive impression of our club through Frank's efforts.

Katherine Hix and I attended the Franklin County Stargaze held on Saturday, August 10. These sessions are free and open to the public. As dusk began to settle, people started to arrive, with approximately 10 to 12 visitors in attendance before the night ended.

The tiny crescent of the new moon was

just visible over the tops of the trees, with Venus just above the horizon. Stars began popping out, and Frank named the first visible stars - Deneb, Vega, Arcturus. I wondered how he could tell what the individual stars were without the surrounding stars from the constellations or some pointer star, but he could. Frank told mythological stories about the constellations, pointed out the main navigational stars, told how stars and their locations have always been navigational tools in the past, as they are now with the launching of satellites, etc.

Frank brought his 10" truss reflector and Katherine had her 8" Dobsonian, so people were able to see double stars, globular clusters, Messier objects, etc. A couple brought their

personal telescope and Frank patiently answered their questions about its use. The collective gasps of surprise as people looked through the telescopes were wonderful to hear. The Ring Nebula was met with great exclamation by several of the attendees. One constellation was said to look like the test pattern on the older black and white television sets.

It was a great night, very rewarding in that these people who took their time to show an interest in the stars were received so warmly by Frank, who shares his knowledge of the universe so willingly. It was a learning experience for me and solidified even further my desire to "keep looking up" and trying to learn what's up there.

Janice Wade

Mystery Object

Can you identify this object?

E-mail your guesses to Dave Thomas at thomasde-ka8inl@worldnet.att.net.

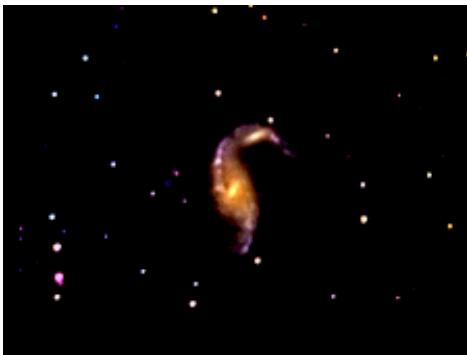


Last Month's Mystery Object

The August mystery object is NGC 6907 in Capricornus. 6907 is at R.A. 25h25.1m, Dec. -24 degrees 49' and shines at Mag. 11.1.

NGC 6907 is a spiral barred galaxy with the bar oriented east to west. The galaxy is visible in 10 inch telescopes and exhibits a spiral arm on its east end. The spiral arm on the west end is visible in long exposure photos. Larger scopes show a bar within the bar near the core of the galaxy.

Dave Thomas



DUES and SUBSCRIPTION NOTICE



It's renewal time for RVAS memberships which expired on June 30, 2002. If you're uncertain whether this includes you, contact one of the officers. (If your membership expires at another time, you'll receive a special notice.) Membership categories are:

- ☛ INDIVIDUAL (\$20.00 per year) -- RVAS and Astronomical League membership for you.
- ☛ FAMILY (\$25.00 per year) -- RVAS membership for you, your spouse and each child 16 or over, plus your membership in the Astronomical League.
- ☛ STUDENT (\$10.00 per year) -- RVAS and Astronomical League membership for a full-time student age 16 or older.

Make checks payable to "RVAS" and forward to: Lynn Slonaker, RVAS Treasurer, 3548 Kenwick Trail, Roanoke, VA 24018.

CONTRIBUTE TODAY!

To **YOUR** RVAS newsletter! Share news, observations and other items of astronomical interest with the membership. Needed by the 20th of the month. E-mail preferred, but hand or type-written, photocopied, or floppy disk materials also accepted, or call the newsletter editor. See the bottom of this page for contact information.

Astro-Quiz

For many, meteorites are objects of curiosity. But one recovered meteorite has been an object of reverence since antiquity. What is this meteorite?

Answer to Last Month's Astro-Quiz: Astronomy is so much a part of us that we often overlook its influence. Take, for example, the familiar globes of the earth. One of the markings on globes is the Arctic Circle. While many know that this parallel of latitude marks the region of the earth north of which the sun will not be seen to rise on the winter solstice, few stop to consider why it is called the *Arctic* Circle. The word Arctic derives from the Greek *arktos*, meaning "bear." The region above the Arctic Circle is the area whose sky is dominated by the constellations of the Great and Little Bears (*Ursa Major* and *Ursa Minor*, in Latin). In Greek mythology, the bears are Callisto and her son, Arcas, who were changed into ursine form and set in the sky by Zeus. Thus, the Arctic region is an homage to the mythological origins of astronomy.

The Roanoke Valley Astronomical Society is a membership organization of amateur astronomers dedicated to the 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. Yearly individual dues are \$20.00 (Family membership: \$25.00; Student membership: \$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.

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); Dave Reese, Newsletter Editor (366-8775, dereese@mindspring.com), Dave Thomas, Mystery Object columnist (thomasde-ka8inl@worldnet.att.net), RVAS Message Line: 540-774-5651, RVAS Web page: <http://www.roavas.org>

HIGHLIGHT FROM THE AUGUST MEETING

RVAS Ambassadors Return from Texas Tour

Leading off the evening's activities, a person well known to all amateur astronomers who are familiar with telescopes, John Dobson, was featured in a video segment from the PBS series "The Astronomers." Dobson has lead numerous roles in life from chemist to monk to purveyor of the night sky. His popular alt-az mount has allowed inexpensive telescopes to be within the budget of many. He believes amateurs should go to where the public is, if they want to show off celestial wonders. The camera crew found him at Oregon's Crater Lake National Park introducing people to safe solar observing. "Come see the sun safely. It's your sun," he kept saying as he waved people over to his telescope. A real promoter of astronomy!

Slim Pickings for Summer Observing Nights

Summer skies contain many fascinating and beautiful clusters and nebulae. Unfortunately, there has been little cooperation by the weather. Perhaps it was the summer heat, but on Saturday August 3rd, only six RVAS members gathered on the Blue Ridge Parkway for a tailgate-stargaze. However, for once the weather came through! As the evening progressed, the skies grew clearer prompting Paul Caffrey and Dave Reese to stay until nearly 2 am.

The Perseid meteor shower was affected by very hazy skies. The nights on August 12 and 13 saw John and Genevieve Goss counting only about 10 meteors over 2 hours. After last year's Leonids, we have become spoiled!

Finally, the much ballyhooed close approach of newly discovered asteroid 2002 NY40 was literally a wash out for Roanoke area observers. Clark Thomas was hoping the weather wouldn't let him down, "On the way (to the Parkway) it seemed to be clearing, and the Moon even looked good. Then it

started to rain a bit, and then it stopped. Arriving at the overlook, it was totally cloudy; so I waited for over a half hour. Nothing but wind and clouds. It was after midnight, and getting spooky. So I went back to Roanoke, never having taken my scope out of the car." Being in a drought and all, why did it rain as this building sized rock zipped past the earth?

Adventures at the McDonald Observatory

For newcomers to astronomy: No, McDonald's does not have an observatory!

The University of Texas along with other institutions operates a world class observatory in southwest Texas near Fort Davis. Sitting atop the 6800 foot Davis Mountains, there are 3 major scopes including the world's third largest, the 11 meter segmented Hobby-Eberly Telescope (HET). RVAS traveling ambassadors, Vince and Phyllis Talley, were lucky enough to tour the facility during the last week of April and be part of an observing session sponsored by Elderhostel. Although they were unable to use the 11m HET, the 2.7 Harlan Smith Telescope, or the 82 inch Otto Struve Telescope, they were given time on a 36 inch telescope. That's nothing to sneeze at! At this location, the great Omega Centauri cluster was visible 10° above the horizon and gave a superb view through Vince's 11 x 80 binoculars.

The Hobby-Eberly Telescope is of an unusual design. It is comprised of 91 mirror segments arranged in an Arecibo type structure. Of course, each segment is optically finished to the most exacting tolerances. As with the Green Bank 100m radio telescope, the curvature of its segments is adjusted by 273 actuators. The telescope's central obstruction is 2.5 meters wide--that's close to 100 inches of unusable aperture. Not too long ago, a 100 inch mirror would have been one the world's largest! Over the next few years, expect to hear about fascinating discoveries from this extraordinary instrument.

VAAS 2002*PRELIMINARY ANNOUNCEMENT*

Host: Richmond Astronomical Society
When: Saturday, October 5
Location: Randolph-Macon College in Ashland, VA
Registration: TBA

9:00 – 9:45 Registration
 9:45 – 10:00 Welcome, Jim Blowers, RAS president
 10:00 – 10:30 Dr. George Spagna, RMC
 10:45 – 11:30 Dr. Robert Rood, UVA
 11:45 – 12:30 Dr. Eric Douglass, RAS
 12:30 – 1:30 Lunch
 1:30 – 1:45 VAAS clubs welcome
 2:00 – 4:30 Workshops

There will be door prizes at the conference. In the evening, there will be a picnic and star gaze at Poor Farm Park in Ashland.

Workshops

ATM (Amateur Telescope Making)
Joe Hetmanski

CCD Class
TBD

Renaissance Navigator
Robert Hicks

"Hunting for Herschels"
John Goss, RVAS

Dobsonian Video
Joe Hetmanski

Moon/Mars Geography
Eric Douglass

"Comets and My Catalog", a special presentation by Charles Messier
Norm Guenther

If you have anything to donate for the swap table, contact Joe Hetmanski or Gary Cowardin. Any item can be placed on the swap table.

Details at Richmond Astronomical Society webpage (<http://www.richastro.org>) and the October RVAS NL.

Mike Good's CCD Photography



The Great Hercules Cluster, M13, taken with a Meade 8" SCT on August 6, 2002, at f3.75 (using focal reducer) and an ST-237 CCD camera at 0°C. There were 126 images in 1x1 mode (10 seconds each, throwing out images where atmosphere got wavy, or tracking errors), for 21 minutes integrated luminosity, followed by 2x2 binning of R, G, and B of 5min, 6min, and 8min respectively.

Used 22 dark frames, averaged together, to make sure there was no thermal noise in the luminosity image – helping image quality. Resampled to 2x, Lucy-Richardson deconvolution, and rescaled back to normal size (The ST-237 has a 640x480 CCD chip in 1x1 mode.)

Can you spot the elusive propeller in the heart of the cluster?

Coming soon to RVAS Meetings!

Do you know all the approximately ninety RVAS members by name? Or, face? RVAS will be providing each member with a name tag that can be worn to all RVAS activities.

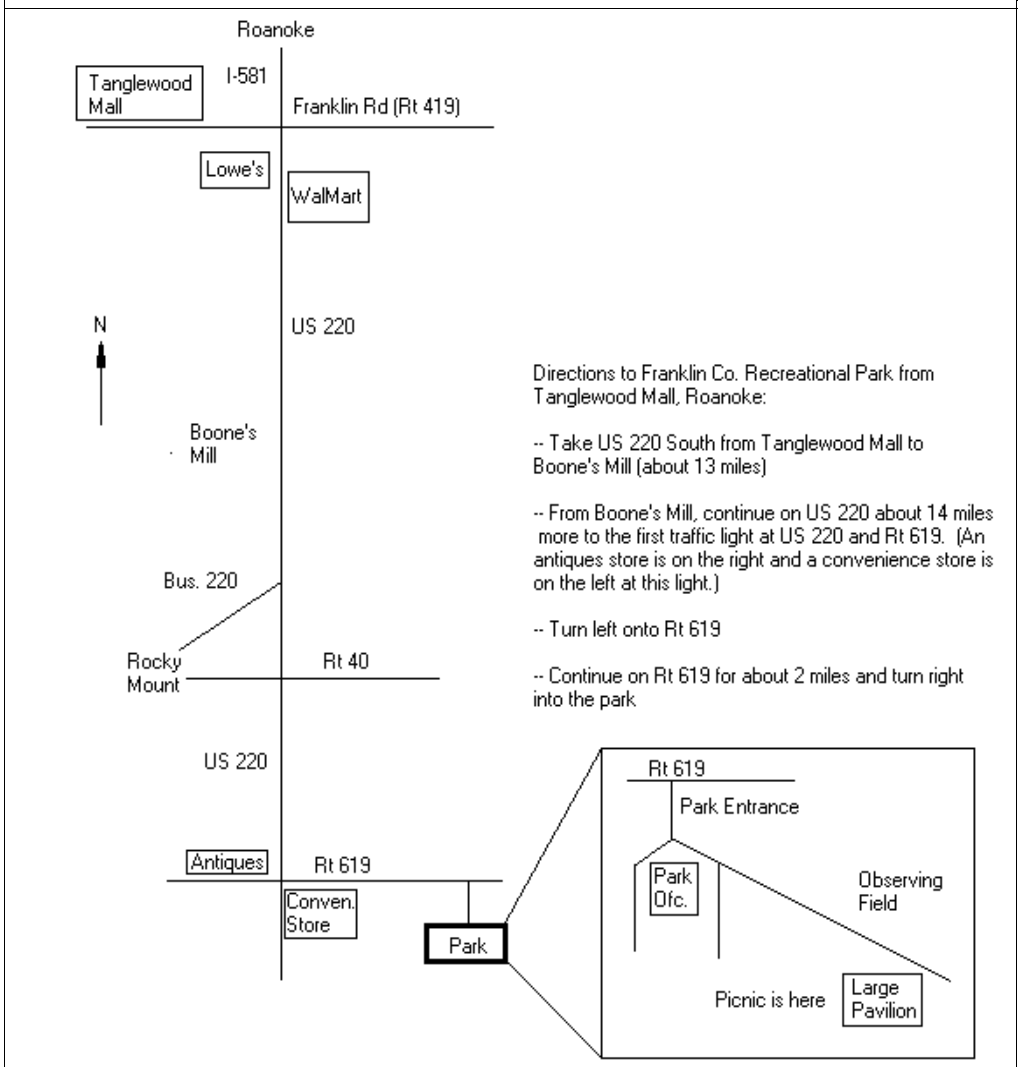
Newsletter Editor On Leave

David Reese, RVAS newsletter editor, is handing over his duties for the September issue to John Goss and Mahesh Tailor while he and Laura await the arrival of their first child and RVAS' youngest member.

Improve Your Astronomy Skills — Start an Observing Program

The Astronomical League has many observing programs from solar studies to planetary targets, from Messier objects to Herschel fuzzies. See their homepage for all the details : <http://www.astroleague.org>.

Directions to Franklin County Recreational Park and the RVAS Picnic





Four days at ALCon 2002

What is ALCon and what happens there? Every year the Astronomical League assembles a national convention for amateurs that is part conference, part vendor exposition and part star party. The 2002 effort was hosted by the Salt Lake Astronomical Society who held the 4 day extravaganza at the beautiful Olpin Union Building at the University of Utah.

Speakers from all facets of astronomy were invited. The result? There was something for just about everybody: from "Native American Images of the Sky" to "Five Remarkable Women at the Crossroads of Astronomy", from "Photoelectric Measurements of Planetary Nebulae" to "The Age of the Oldest Stars", from "Grinding and Polishing a 24" f/7 Mirror" to "Art and Science in Astronomy" and from "Cassini Mission to Saturn" to "Mars: Flashes, Dust, and What's Up for 2003". This short list leaves out many, many others. All told there were at least 40 lectures, 3 workshops and a number of impromptu informal gatherings.

The evenings were not left out with 2 star parties, a ranch barbecue, and the concluding Astronomical League Gala banquet. A diverse collection of people attended all with the similar mind of enjoying the sky. You could just as easily rub shoulders with a retired astronaut, an engineer from JPL, an

Astronomical League officer, a university professor, a Kitt Peak Observatory operator, a Meade Instruments vice-president, as with an experienced amateur from Miami or a novice from Salt Lake City. As amazing as it may seem, everyone seemed to learn something from one another! Even the editors of Sky and Telescope and Astronomy magazines shook hands! There were a lot of camera flashes capturing that moment.

One of the highlights for the Astronomical League and the RVAS occurred during the awards ceremony at the Gala banquet. As was announced earlier this year, RVAS member Isaac Campbell was flown to Salt Lake City to be presented the 2002 Horkheimer Service Award. Isaac won this award due to his interest in amateur astronomy and sharing his enthusiasm with others. For the past 4 years, Isaac has helped with club activities including observing sessions, Astronomy Day, First Night, and meeting presentations. He also has brought astronomy to other Home Schoolers, as well as guests at the Science Museum of Western Virginia. In recognition of this and much more, Bob Gent, the League's president, was proud to present this year's award to Isaac.

Many of you may remember that last year's ALCon was held in Frederick, MD. Next year, it won't be too much of a drive from Roanoke as it will be held in Nashville, Tennessee. Keep your calendars open from July 8-13!

Nothing Compares With Quiet Gazing

When you read about astronomy your mind starts reeling,
 your head spins in sympathy with Earth.
 Whether or not you can follow the physics,
 the wonder still collapses your brain.
 But nothing compares with quiet gazing-
 lying in the grass at night looking up
 or letting a hammock swing you out there.
 Each star a sun,
 and all of us a spiraling family!
 How magnificent must we be serenening through space
 through telescopes on neighboring galaxies.
 And the distances!
 How to comprehend that our own Milky Way,

with a 100,000 light-year diameter,
 is but one of billions?
 More than astonishing a questing intellect,
 the night sky nourishes the hunger
 for awe before mystery.
 what worth is technological advancement
 if it so speeds and clutters life
 that we cease lying in the grass at night looking up
 or letting our hammocks swing us out there?

*Charles C. Finn
 April 1987
 Fincastle, VA*

Society Calendar of Events and Activities for September 2002

SEPTEMBER MEETING: Saturday, September 28th, 3:00 p.m., Annual RVAS Picnic and Star Party, Franklin County Recreational Park. Join us for our annual gathering and enjoy an afternoon and evening of food, friends and fun!

"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, 6th and 7th.** Sunset is at 7:41 p.m. Astronomical twilight ends at 9:10 p.m. The Moon sets at 7:54 and 8:28 p.m., respectively.

☉ **Friday, 27th.** Sunset is at 7:09 p.m. Astronomical twilight ends at 8:36 p.m. The Moon rises at 10:38 p.m.

☉ **Saturday, 28th.** (RVAS Picnic at Franklin Co. Recreational Park) Sunset is at 7:08 p.m. Astronomical twilight ends at 8:34 p.m. The Moon rises at 11:22 p.m.

☉ **October Sessions:** 4th and 5th; and 25th and 26th.

FRANKLIN CO. PARKS DEPT./RVAS PUBLIC STARGAZE: Next session: November 2nd.

ROANOKE CITY PARKS DEPT./RVAS PUBLIC STARGAZE: Saturday, September 7th, 8:15 p.m., Cahas Overlook, milepost 139, Blue Ridge Parkway. Free. Call 540-853-2236 to register. (Next month: October 5th, 7:30 p.m., Cahas Overlook.)

VAAS 2002 CONFERENCE: October 5th, Randolph-Macon College, Ashland, VA. See www.richastro.org.

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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ROANOKE, VIRGINIA 24019-6810**

ADDRESS CORRECTION REQUESTED