



# RVAS

Roanoke Valley Astronomical Society



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

Vol. 23 - No. 1

January / February 2006

## ***ENCHANTED EVE 2005/6***

*By Sharon Stinette*

The sign read, "SEE THE STARS", and through the evening of December 31<sup>st</sup>, hundreds of people did just that. Six members of the RVAS deployed seven telescopes on the front lawn of the Vinton War Memorial as part of the Second Annual Enchanted Eve celebration. The telescope array was one of many locations in downtown Vinton offering various activities, entertainment, and food in a family-oriented atmosphere.

After a day of overcast with occasional sunshine, the clouds broke and we had clear skies. Viewing was generally good until late in the evening when some scattered clouds rolled in. Club members who turned out for this public outreach event were Mike Overacker, Katherine Hix, Mark Hodges, Dave Godman, Fred Davis and Sharon Stinette. Our first "customer" was a fifth-grader who spotted Venus before the sun set. Fred trained our Celestron, a 6-inch f/8 refractor, on the bright planet, which

appeared as a beautiful, thin crescent. The weather was kind to us – it was neither very cold nor windy. Still, I was thankful for the propane heater in Mike's AstroBus and the comfort it provided against the winter chill. Mike took a few pictures of our telescope array before dark and then we were busy with all the people out to welcome the New Year.

Early in the evening we scouted the skies for various targets, but as more people gathered to "see the stars" we settled our telescopes on

selected sky objects. Katherine had her 13.1-inch f/4.4 Dobsonian on the Double Cluster in Perseus, a dramatic feature which most people could easily discern, and then later on Mars. Mike had two of his hand-crafted telescopes, the 12.5-inch f/8 Dobsonian and the 15-inch f/4.8 Dobsonian, available for viewing various objects. Early on, observers saw Betelgeuse and Rigel through Mark's 11-inch Schmidt Cassegrain, and then he shifted to the Orion Nebula (M42 and M43). One woman only knew  
*See Enchanted Eve, Page 2*



Don't forget to start getting your astrophotography and night sky images together for the RVAS Photo Competition. The competition takes place at the April RVAS meeting.

## ENCHANTED EVE

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### MYSTERY OBJECT

This nebula, by any other name, would smell as sweet - ette.

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

thomasde-ka8inl@worldnet.att.net

of Orion through the movie, *Men in Black*, and was excited to pick out the real constellation. Mike had set up two of his Schmidt Cassegrains: The 8-inch Meade with an f6.3 focal reducer followed the Pleiades (M45) and the 10-inch Meade tracked the Andromeda Galaxy (M31). Some people had trouble perceiving M31, but those who did were impressed. Most thought the Pleiades were beautiful through the telescope and were pleased to spot the pattern high overhead. After Venus set, Fred focused on various sky objects until Saturn rose, and it was so popular he never moved to another target. Those magnificent rings are tough to beat for sheer drama. Children

seemed most interested in the planets, and I overheard several parents predict that Santa Claus might deliver a telescope next Christmas.

The heart of the evening was this: Close to 1000 people of all ages stepped up to the eyepiece of a telescope, some for the first time in their lives, and walked away excited by what they had seen. Words like "awesome", "beautiful", "cool", or simply, "wow" were commonly spoken all through the night. In the age of Nintendo and other sources of sensory overload, it was gratifying to watch people genuinely moved by the natural wonder and beauty of the night sky. ✦

## ASTRO-QUIZ

Where in the sky would you look if you wanted to see the most Messier objects at one time in an eyepiece that has a one-degree field of view?

Answer to Last Month's Astro-Quiz: Last month we asked which of the 88 officially accepted constellations, bears a name that is also a well-known factor involved in producing the objective of a reflecting telescope. The objective of a reflecting telescope is its primary mirror. And the depth of the paraboloidal curve that must be ground out of the flat glass mirror blank is known as the "sagitta," which is, of course, also the name of the tiny constellation representing an arrow between Cygnus and Aquila. A mirror's sagitta equals the square of its radius divided by four times its focal length. For a 10-inch f/5 mirror, the sagitta would be  $25/(4 \times 50)$ , or 0.125 inch. Note that if the mirror were f/8, the sagitta would only be 0.078 inch. We leave it to the reader to work out the math and ponder the implications.

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 in downtown Roanoke, Virginia. 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:** Katherine Hix, President (334-2443); Mike Overacker, Vice President and Newsletter Editor (776-3092); Mark Hodges, Secretary (774-5039); Lynn Slonaker, Treasurer (774-5695); Bruce Jones, Executive Committee Member-At-Large (774-3844); Paul Caffrey, Immediate Past President (345-2847); Dave Godman, Past President / New Member Coordinator (774-3337); John Goss and Genevieve Goss, Outreach Coordinators (966-4606); Frank Baratta, Membership and Public Viewing Coordinator (774-5651); Mahesh Tailor, Web Master (776-5472)

# THE LOCAL GROUP

By Genevieve Goss

Magazines such as Astronomy and Sky & Telescope attract a quarter of a million readers each month, so at least this many people must have an interest in sky quality and have heard of the International Dark-Sky Association (IDA). Yet, despite its impact on light pollution and the world acclaim it receives, the IDA does not show a very large percentage of amateur astronomers in its membership roster. Instead, the cost of educating the world about good lighting and creating a demand for full-cutoff light fixtures is carried more by professional observatories, universities and lighting companies who address the needs for these fixtures. Donating to a nonprofit,

educational organization may pose the question of "What do I get for my membership??" to members of the Local Group. Well, how much is it worth to preserve the beauty of our night skies? To conserve energy? To promote quality outdoor lighting to reduce glare and light trespass? Using good lighting is such a win-win solution to a difficult problem, but people have to know that there are alternatives. By joining or making a contribution now to the International Dark-Sky Association, you will be doing a great service to all, especially to all amateur astronomers.

RVAS pays for one club membership per year. While it's a noble use for club funds, it doesn't let individual members off the hook! Your own membership to IDA is critical to its success in the battle to save dark skies.

In addition, there is strength in numbers, and IDA will leverage your support around the globe.

If you own one or more telescopes, you should join IDA! If you have subscribed to Astronomy or Sky & Telescope magazines, you should join IDA! If you are a member of an astronomy club (even if your club is a member) you should join IDA! If you think that future generations should be able to observe the heavens, you should join IDA! As you consider year-end donations to offset your income tax burden, you should join IDA! And just how do you join IDA?? Visit: <http://www.darksky.org/membership/membership.html> or mail a check for \$30 (individual) or \$50 (family) to

International Dark-Sky Association  
3225 N. First Ave.  
Tucson, AZ 85719 USA ✦

## LAST MONTH'S MYSTERY OBJECT

The November/December mystery Object is located in Andromeda at RA 01:09 DEC +35:43. NGC 404 is just 7 arc-minutes away from the star Beta Andromedae that shines at 2.1 magnitude.

NGC 404 is a elliptical galaxy 8,000 light years from earth that spans 4.4" and glows at magnitude 10.3. The galaxy is also known as Mirach's Ghost because of its close proximity to Beta Andromedae, also known as Mirach.



## DECEMBER AND JANUARY RVAS MEETING NOTES

By Mike Overacker - RVAS Vice-President

**December** - There were 22 members and 3 guests present. The Treasurer's report was given, and a small amount of observing reports were made. December's meeting is our annual winter social, and there were lots of goodies to be consumed by the attendees. Reminded that on New Years Eve, the club will be participating in Vinton's "Enchanted Evening" at the Vinton War Memorial. We will have telescopes set up, weather permitting. And this spring Astronomy Day will be observed on May 6, 2006. Attendees were permitted to participate in the Alien Earths Exhibit in the Science Museum. Door prizes were awarded at this meeting. Mark Hodges won

a book and Bruce Jones won an Astronomy Calender.

**January** - The meeting was held in the planetarium. The Treasurer's report was given, and a small amount of observing reports were made. The meeting featured a constellation shoot-out. The laser pointer was passed around as attendees answered questions for points. After the lights were raised, it seemed that a great portion of the attendees left in the dark. That was a big disappointment, given the hard work that other members put into making this event possible.

Frank Baratta and John Goss won the event, but donated their prizes back to the RVAS. ✦

# RVAS WINTER SOCIAL 2005

Images by David Thomas



# UPCOMING EVENTS

## **TRI-STAR - GUILFORD TECHNICAL COMMUNITY COLLEGE - JAMESTOWN, NC - MARCH 4, 2006**

The Triad Starfest, \*Tri\*Star\* for short, is a gathering of astronomers of all types, from novice to professional, for a full day of presentations, displays, and observing. The event allows astronomy enthusiasts to share ideas, learn about a range of astronomical topics, get together with old friends, and make new ones. The event will draw astronomers from North Carolina and surrounding states.

\*Tri\*Star\* will take place on Saturday, 4 March 2006 in the Percy H. Sears Applied Technologies Center on the campus of Guilford Technical Community College in Jamestown, NC. In addition to a series of speakers scheduled throughout the day, there will be a wide range of astronomical displays, assorted astronomy-related vendors, prize drawings, "how-to" help for astronomy beginners, a photography contest, and daytime and nighttime observing sessions (weather permitting). \*Tri\*Star\* t-shirts are also available.

## **ASTRONOMY DAY - ROANOKE CITY MARKET AND ELMWOOD PARK - ROANOKE, VA - MAY 6, 2006**

The RVAS is making plans to hold our Astronomy Day activities on Saturday, May 6, 2006 at the Strawberry Festival and Chili Cook-Off. This event will be held in the Roanoke City Market and Elmwood Park area. Weather permitting, observing sessions may also be scheduled that evening in some darker locations. This is a RVAS event, and we will need all the volunteers we can get. We have given 3 months advanced notice so you can schedule this day for the RVAS and Astronomy.

## **NEAF 2006 - ROCKLAND COMMUNITY COLLEGE - SUFFERN, NY - MAY 6 AND 7, 2006**

NEAF (North East Astronomy Forum) is an annual event held by the Rockland Astronomy Club in New York. The event is held at the Rockland Community College at 145 College Road in Suffern NY. This event is heavily attended by astronomy enthusiasts from up and down the east coast and by astronomy vendors from around the world. Information will coming soon at the Rockland Astronomy site at [www.rocklandastronomy.com](http://www.rocklandastronomy.com).

## **ALMOST HEAVEN STAR PARTY - SPRUCE KNOB, WV - AUGUST 24-27, 2006**

NOVAC is pleased to announce that we will be holding our second annual Star Party at Spruce Knob, West Virginia on June 2-5, 2005. The event will be held at The Mountain Institute in one of the darkest areas on the east coast at an elevation of about 4200 feet. Please check the web site for more information. We will be adding details over the next few weeks. <http://www.novac.com/AHSP/index.php>  
Registration will open on February 15, 2006 and it can be done completely on-line. If you have questions, send an email to [AHSP@NOVAC.COM](mailto:AHSP@NOVAC.COM).

## **THINGS RVAS MEMBERS MIGHT WANT TO DO THIS MONTH**

1. Attend the RVAS February meeting on Monday, February 20, 2006. This will be a great learning opportunity for all club members. Isn't that why you joined the RVAS?
2. Make a list of things that you would like to know more about involving Astronomy. Also, areas that you might have the sufficient knowledge to help others in that realm of knowledge. Also, write an article for the Newsletter. That is something that every member of this club should do. The RVAS is what you make it. More members involved means a better club. When you come up with a list or article, send it to me at : [mike@overacker.com](mailto:mike@overacker.com)
3. Do some observing. Preferably, do some observing with some other club members. Sure, it might be cold, but that is what layers of clothing are for. The vast majority of club members have never been seen at RVAS programs, or out observing with other club members. Why not start now?
4. Volunteer to help with Astronomy Day activities, or other club activities. A large part of the activity and outreach of the RVAS is being done by a few people. This is not fair to those few, or the club. It makes no difference how much, or how little, you know. What counts is that you are willing to be a part of the RVAS. Remember, the RVAS is here to promote astronomy, the RVAS, and to have fun. You can't have fun if you don't show up.

# ***Society Events and Activities for February 2006***

**MONTHLY MEETING:** Monday, February 20th, 7:30 p.m. fifth floor meeting room, Center in the Square, downtown Roanoke. The meeting program will be Mark Hodges speaking on Telescope Collimation, John Goss speaking on the Astronomical League Observing Clubs, and Katherine Hix speaking on the AL Double Star list and double star observations. .

**“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 6:03 p.m. Astronomical twilight ends at 7:30 p.m. The Moon rises at 10:23 p.m. and 11:24 a.m., respectively.

Friday and Saturday, 24th and 25th. Sunset is at 6:09 p.m. Astronomical twilight ends at 7:36 p.m. The Moon sets at 2:04 and 3:22 p.m., respectively.

**March Sessions:** 17th and 18th; 24th and 25th.

**FRANKLIN CO. PARKS DEPT./RVAS PUBLIC STARGAZE:** No sessions planned until March 25, 2006.

**ROANOKE CITY PARKS DEPT./RVAS PUBLIC STARGAZE:** Saturday, February 18th, 6:30 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: March 18th, 7:00 p.m., Cahas Overlook.)

**RVAS EXECUTIVE COMMITTEE MEETING:** To be announced.

Roanoke Valley Astronomical Society  
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