

# RVAS NEWSLETTER



Roanoke Valley Astronomical Society (RVAS)  
News About Amateur Astronomy  
In Southwestern Virginia



Vol. 23 - No. 10

November 2006

## GET PINNED

*By Michael Overacker  
RVAS President*

Everyone that is a member of RVAS has been a member of the Astronomical League (AL). The AL does quite a few things involving amateur astronomy and astronomy clubs around the world.

One of the coolest things that they do is provide for a series of observing clubs that AL members can take part in, and work their way through the realm of amateur astronomy. The sad thing is that most members do not take advantage of these clubs.

In the recent restructuring of the RVAS into committees to expand the capabilities of the RVAS to reach new members, and provide for current members, a new committee, the Observing Club Committee, has been formed. I, Mike Overacker, am the chair of this new committee.

These clubs require you to observe the astronomical world around us. Some are naked eye observing, some are binocular, and some involve telescopes. Please note that Go-To Telescope

systems, as well as Point-To telescope systems are not allowed to be used to find these objects, unless otherwise noted in the club instructions. Go-To telescopes allow the observer to punch in the object, hit a button, and the telescope finds it. Point-To systems allow a user to punch in an object, the Point-To system then allows the user to move their telescope until the counters go to zero, thus finding the object. Both let the computer find the object for you, and are thus considered cheating and not allowed. The whole idea of these clubs and pins are to make you familiar with the night sky, not your computer. Please do not use these crutches and then expect to get your pins. Now, let me introduce you to some of the Observing clubs that are available to you, through the AL, that are available to you as a member of the RVAS.

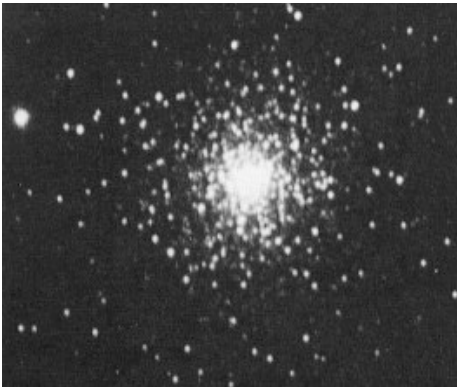
**Constellation Hunters Club**  
– The Constellation Hunters Club has 2 pins available. The Northern Skies Pin and the Southern Skies Pin. The purpose of these clubs is for the amateur astronomer to become familiar with the constellations. With this baseline of familiarity, the member can be much more comfortable moving

onto the other Observing Clubs. There is no need for any equipment, as all you have to do is find the constellations, sketch them out, and log date and time, seeing conditions, and nearby stars that help verify that you did see the constellation. This club is one that every member should complete, novice and expert alike.

**Sky Puppies Club** – (10 Years old and Younger) This club is an all around look at the night sky for the younger members. The parents can oversee their youngster in the completion of this club, but the Observing Club Committee can help out as needed. This is a great club for the younger observer. The Sky Puppies Club manual must be obtained from the Astronomical League.

**Universe Sampler Club** – This club is a novice observing club that exposes the new astronomer to the concepts and objects in astronomy. It introduces members to the moon, planets, double stars, deep sky objects, as well as constellations and

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## MYSTERY OBJECT

If you do your 110, this one is in the fall boat. Know your ecliptic.

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

thomasde-ka8inl@worldnet.att.net

## RVAS OCTOBER MEETING MINUTES

By Mark Hodges - RVAS Secretary

**Mike Overacker** opened the meeting and welcomed the 20 members and 3 guests present.

**John Goss** presented an Honorable Mention award to the club by the AL for our participation in Astronomy Day 2006.

John presented the deep sky object of the month, M52 and NGC 7789, both open clusters in Cassiopeia.

**Steve Manuel** presented the constellation of the month, Pegasus.

**Dave Thomas** presented the program, Radio Astronomy, using a short wave receiver and a dipole antenna to listen to radio bursts from Jupiter and the Sun.

**Jeff Suhr** gave a Treasures report.

**Mike Overacker** reported that the Meade tripod was sold, but we still have several accessories left from the telescope the club purchased for the Apple Ridge Farm Observatory.

There were 2 door prizes awarded at this meeting. A star atlas, "Atlas of the Stars", printed by Astronomy Magazine, was won by one of our guests, **Lea Turner**. A DVD Planetarium software package "DeepSky Astronomy", was won by **Paul Caffrey**. The DVD Astronomy Software was purchased and donated by **StarGazer Telescopes**.

**Mike Good** gave a report on the Observatory progress. They have 3 walls up and have made tremendous progress. The meeting was adjourned.

## ASTRO-QUIZ

In the history of celestial mapmaking, cartographers have felt obliged to introduce new constellations that have since become obsolete. One offered by J.J. Lalande is remembered only for an annual celestial event in January. What is the name of the obsolete constellation and what is the annual event?

Answer to Last Month's Astro-Quiz: There's a widespread impression that meteors shine because they are heated by friction with the Earth's atmosphere. The problem with this answer is that it's wrong! When passing through our atmosphere, meteors are heated so ferociously that they glow, and are visible for hundreds of miles. However, it is not friction that heats them, but "ram pressure." When gasses such as our planet's atmosphere are compressed, they get hot, like when a bicycle pump is vigorously used to inflate a tire. A meteor moving at 33,500 mph or more compresses the air in front of it violently. The air itself gets very hot, which is what heats the meteor. That's the fact, not friction. (Kudos to John Goss for correctly answering last month's Astro-Quiz!)

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:** **Mike Overacker**, President / Newsletter Editor (776-3092); **Steve Manuel**, Vice President (890-3883); **Mark Hodges**, Secretary (774-5039); **Jeff Suhr**, Treasurer / Membership Coordinator (563-0079); **Vacant**, Executive Committee Member-At-Large; **Katherine Hix**, Immediate Past President (334-2443); **Paul Caffrey**, Past President (345-2847); **Roger Pommerenke**, Webmaster (774-5823)



## LAST MONTH'S MYSTERY OBJECT

The constellation Aquila holds the mystery object for this month. NGC 6781 lies 2500 light years distant. A planetary nebula, NGC 6781 shines at magnitude 11.8.

Located on the sky at RA 19h 18.4 min the nebula shows detail in 8 inch or larger scopes. Although visible in smaller scopes it does not show detail as in larger scopes.

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concepts used in observational astronomy, such as setting circles and star hopping. This is a great stepping stone to the other clubs provided by the Astronomical League.

**Lunar Club** – This club is all about the moon. Requirements of this club involve finding various lunar features. This club can be done with a small pair of binoculars and a small telescope. The good thing about this club is it gives you something to do on the moonlit nights when you can't observe the deep sky "faint fuzzies".

This is another club that every member should consider.

**Messier Clubs** – There are two Messier AL clubs, the Messier Club, and the Binocular Messier Club. I was doing both clubs on my way to my Messier Pin, but I was distracted in my Messier Pin quest, and forgot to take out my binoculars during a lot of my sessions. I have my Messier pin, but now I have to complete the binocular club.

The Binocular Messier Club has various Messier objects to find, based on the binocular objective size. I was finding very little difficulty finding most of the necessary Messier objects with my binoculars from the front yard of my Roanoke County home. If you have a pair of binoculars, this one is for you. The Messier list does require a telescope. Aperture rules in assisting with these objects, but a reasonably dark sky and a moderate sized telescope will help you breeze through this list. This is the list that most amateur astronomers try to complete. You should too.

**Deep Sky Binocular Club** – Once you are finished with your Binocular Messier list, this list awaits you. Getting this pin will require the same binoculars, but good seeing and more patience. This list will test your observational skills with binoculars. Proof, again, that you do not need a telescope to be actively involved in astronomy.

Various Astronomical League

Observing Clubs require the use of a telescope, and sometimes a large telescope. These clubs are listed below.

### **Arp Peculiar Galaxy Club**

- Members must image 100 of the 338 Arp Peculiar Galaxies which range from magnitude 12 to 18. You can also do this club visually, but it is aimed at imaging.

### **Caldwell Club**

– Members can reach two levels of this list. Level 1 is for 70 of the 109 Caldwell objects, and Level 2 is for all 109 objects. This list is difficult because the declinations range from +85 to -80.

### **Herschel 400 Club**

– Members must observe a defined 400 of the 2477 Herschel Objects and record required data. This list has been done with a 6 inch scope, but average seeing conditions will hamper scope of that size in this club.

### **Herschel II Club**

– Members must find 400 more of the Herschel objects for this club. All data must be recorded, and this club requires a telescope of at least 10 inches of aperture. This club is not for the faint of heart, but it is attainable if you have the desire. A manual must be purchased from the AL for this club.

### **Globular Cluster Club**

– This club lists 190 globular clusters, of which a member must observe and record data for 50 of them, with at least

# UPCOMING EVENTS

## TRI-STAR STARQUEST - GUILFORD, NC - MARCH 3, 2007

The Tri-Star Star Quest is an astronomy event held at Guilford Technical Community College. This is a very nice event that is held by the Greensboro Astronomy Club. The details have not been finalized yet, but RVAS members should consider attending this event. For more information as it becomes available, go to:

<http://technet.gtcc.cc.nc.us/comserv/cline/tristar.htm>

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one challenge object from the challenge list. You must purchase a guide for this list from the Astronomical League.

**Open Cluster Club** – The Open Cluster Club has a list of 125 open clusters. The member must observe and record data for all 125 cluster, as well as sketch 25 of the clusters. 10 of the open cluster require telescope apertures of 15 inches or more. If you do not have a 15 inch telescope, other club members can help. Several RVAS members have telescopes 15 inches and larger. Some of them would be willing to help you out in this endeavor.

### **Planetary Nebulae Club**

– Members must observe all 110 Planetary Nebulae on this list to achieve this award. All objects on this list should be visible from this area. This list was developed by Back Bay Amateur Astronomers, and all objects are visible from the Virginia Beach area declination. You must purchase a guide from the AL to complete this club.

– Members must observe 100 objects from two lists through a light-polluted sky, defined as a sky where you cannot see the Milky Way with the naked eye. Previous observations logs are not permitted. However, logs of viewed object from this club ARE allowed to be logged with other observing clubs. Telescopes from 6 to 10 inches in aperture are recommended. This is one that you can do from your front or back yard if you live in light polluted skies.

**Double Star Club** – Members must observe all 100 double stars on the list. Members must log all required information, plus sketch the double star in proper orientation to North and East or West. This observing can be done with telescopes of 60mm or larger in aperture, and at various powers to provide separation of close doubles.

Other clubs are:

**Asteroid Observing Club**  
**Comet Observers Club**  
**Earth Orbiting Satellite Observing Club**  
**Lunar II Club**  
**Master Observer Club**  
**Meteor Club**  
**Outreach Club**  
**Planetary Observers Club**  
**Sunspotters Club**  
**Southern Skies Binocular Club**  
**Galaxy Groups and Clusters Club**  
**Southern Sky Telescopic Club**

If you wish to start, or complete any of these clubs, contact me. I will try to put some groups together so members can work together to advance their skill at a much faster rate. Also, if you wish to become an Observing Club Committee member, contact me for more info. Lets get started observing. ✦



**Lunar Pin**



**Messier Pin**



**Constellation Hunter Pin**

**Urban Observing Club**

## **NOVEMBER OBSERVING HIGHLIGHTS**

The month of November 2006 will give up some very impressive sights to those who get out and observe this month. Starting it all off is a rare Mercury Transit on Wednesday, November 8, 2006. The RVAS will be on the first overlook on the Explore Road, off the Blue Ridge Parkway to observe this event. The next transit of Mercury across the sun will be in 2016. We have to wait 6 more years for the next Venus transit in 2012. This is something that you do not want to miss. The Venus transit in 2004 is one of the coolest things I have ever seen, so take some time off from work and join us for this solar event.

This Mercury Transit will start at 2:12 P.M and continue till sunset. The RVAS members will start setting up around 1:30 P.M.. I highly recommend that RVAS members take advantage of the opportunity to view this spectacle through the safety of solar filtered telescopes. Then, on Saturday, November 18, 2006, we get a visit from the Leonid meteors. This year is just before a full moon, so the sky will be dark. Mark Poore, a new member sent some info to me that indicates that this year could very well produce a spectacular shower to those who bundle up to brave the evening and morning chill. The RVAS plans to do outreach at this event as well, but the location has not been finalized at the time of this printing. Check with the club for further info.

Don't forget that the RVAS November meeting is on Monday, November 20, 2006, on the fifth floor of the Center in the Square building at 7:30. ✦

## **RVAS "NAME THE NEWSLETTER" COMPETITION**

Do you have a creative side to your complex personality? If so, you might want to take a shot at the RVAS "Name the Newsletter" contest. The renaming was all started when the October NL was called the "Shooting Star". Many members said that they liked this name, but a board member did a "Google" search and found that a publication with sordid content was also named the "Shooting Star", so the board shot down that name.

So, now it is up to the membership to come up with a name for the newsletter. Send in your recommendations to any RVAS Board member to be eligible to win the contest. Entries must be received before November 30, 2006. The new name will appear in the December newsletter. The winner will also receive a prize for their winning entry. The RVAS board will select the winner. So, put your creative thinking caps on and send us your best ideas. ✦

## **DOOR PRIZES ADDED TO RVAS MEETINGS**

It pays for RVAS members to attend the RVAS meetings. Don't believe me? Just ask Paul Caffrey who came to the October meeting and walked away with a \$70 DVD Planetarium package. Or ask Lea Turner, an RVAS guest, who won the "Atlas of the Stars" star atlas from Astronomy Magazine. Valued at \$13.00. The RVAS gave away \$83.00 in door prizes at the October meeting. Will the RVAS be giving away door prizes at every meeting? No. Will the RVAS be giving away more door prizes at future meetings? Yes. But we will not be giving advance notice of door prize giveaways. So, if you want to win a door prize, you have to attend the meetings. As of right now, we have over \$300 worth of door prizes to be given away, and more are coming in, as we work with current and future donors and supporters. Can anyone say Laptop? ✦

# **RVAS COMMITTEE UPDATES**

*By Mike Overacker - President*

## **Dark Sky Committee – Jeff Wood**

I am a fairly new member of the RVAS and the new Chairman of the Dark Skies committee. I offer this outline of action and activities as a starting point for the Dark Skies to engage our local communities with the issues of light pollution, energy efficiency, and environmental impact directly related to lighting design.

Many of our members are already active in these and other related areas. I see the Dark Skies Committee providing a forum to consolidation and focus these various activities into an effective voice for protecting the Dark Skies of the Roanoke Valley for ourselves and future generations. I propose that Dark Skies start here in a “kick-off” committee meeting in November. I will contact committee members directly to coordinate a time place and agenda for this initial strategy session.

## **Scholastic Outreach Committee – Matt Fleenor**

ARC (Astronomy at Roanoke College) is now an active entity on campus and is led by our own Isaac Campbell. ARC had its first student/faculty observing session on

October 25, and a few students turned up to David Scaer’s house (faculty co-advisor) in South county. Anytime undergrads come out on a cold night in the middle of the week (and Semester), I count it a huge Success. We are in the planning stages for our first joint RVAS/ARC observing session ON CAMPUS at RC, November 17, beginning at 6.30 or 7. If you are interested in bringing a telescope or just showing up to assist, please contact Matt Fleenor (fleenor@roanoke.edu). Mike Overacker gave an excellent overview of observing and telescope design at the RC Conversation Series in September entitled “If it’s SO Big, Why Can’t We See It?” The talk was well-attended by over 50 undergrads, who were plenty interested and loaded with questions. This is an ongoing outreach of the Math, Comp Sci, and Physics dept at RC to provide undergrads with relevant and exciting applications within these fields. If you are interested in being a part of a future Conversation Series, please contact Matt Fleenor. Although the Scholastic Outreach activity was initiated within the RC community, we are also planning for future interaction with the elementary and high schools across the Valley.

## **Apple Ridge Farm Committee – Katherine Hix**

Volunteer members of the ARF Committee are Liana Arias, Jeff Suhr, Mike Good, and I. RVAS Officers, and therefore ad hoc members of the Committee, are Mike Overacker and Steve Manuel. Non-volunteer, attached members of the committee are Beth and Al Durham, Ellen Holtman, Elaine Thompson, and William Dillon.

The latest information I have regarding the Observatory at Apple Ridge Farm is as follows: The observatory is expected to be completed this winter. Programs for children who attend camps will need to be completed beginning in the spring. I would expect that, for the first year, we will need programs directed to children from elementary, middle, and high schools for the spring, summer, and early fall of 2007. Expansion of programs can be addressed for 2008, as necessary.

Personally, I am working on programs that will last about 40 minutes long, and that consist of showing some constellations outside of the observatory, then going in the observatory to look at objects through the telescope using the GOTO

function. This will give children the opportunity to see the sky as a whole, learn to identify some constellations and other objects that are visible with the naked eye, and then view some of those objects more closely and discuss them.

My goal is to have nine programs ready to be used by spring (March 15 is my target date). I understand that the children who attend the camps are mostly middle-school and high-school aged, with some younger children occasionally. Therefore, I believe that two programs for elementary school children, three for middle school, three for high school, and one for more advanced high schoolers, might do the job for the first year of operation.

These programs would need to discuss what is in the sky at the time, including objects that are always there in the particular season, and possibly discussing others that are just passing through, such as comets or planets. I am working on two programs myself, and have requested that other members of the committee begin considering the creation of additional programs to be ready by early Spring 2007.

### **Membership Committee – Issac Campbell**

The membership Committee was being chaired by Clark Thomas. Clark has informed

the RVAS president that he is currently unable to fulfill the requirements of the chair of the Membership Committee. Issac Campbell was invited to assume the chair for this committee, and he accepted the invitation. The RVAS Executive Board has complete confidence in Issac, and wishes him well as he takes over the helm of this very important committee.

### **Hospitality Committee – Carol Mesimer**

The Hospitality Committee reports that they are preparing for the Winter Social. They would like to remind RVAS members to bring a snack, dessert, or goodies to the Winter Social on December 18th at the December RVAS meeting.

### **Public Outreach Committee – Mark Hodges**

The Public Outreach Committee is working on outreach for the Mercury Transit on Wednesday, November 8, 2006 and the Leonid Meteor Shower on Saturday, November 18, 2006. If you would like to help with this outreach, please contact Mark Hodges

### **Program Committee – Steve Manuel**

Programs have been set through January 2007. Working on more programs for next year. Please forward any suggestions to a Program Committee

member

### **Observatory Committee – Paul Caffery**

Members have been contacted and progress started toward Observatory Rules and Regulations.

### **Publicity Committee – John Goss**

Committee is working on Public Access information and media coverage of the Mercury Transit on November 8, 2006.

### **Observing Club Committee – Mike Overacker**

This new Committee will be working on putting together AL Observing club groups, as well as looking into the CLASS Observing standards for students. ✦

## **FOR SALE**

There is a Meade Model 395 80MM refractor on an equatorial mount for sale. If you are interested in this telescope, please contact Hunter Summerson at (540) 774-2277

The RVAS also has a Meade Model #1220 Field Derotator for sale. This is for Meade SCT telescopes and allows astrophotography without the use of a wedge. Contact Mike Overacker if you are interested.

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

**MONTHLY MEETING:** Monday, November 20th, 7:30 p.m. Fifth floor meeting room, Center In The Square, Roanoke. The evening's program will be an update to the Apple Ridge Farm Observatory by Michael Good.

**"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, 10th and 11th. Sunset is at 5:13 p.m. Astronomical twilight ends at 6:42 p.m. The Moon rises at 9:54 and 10:58 p.m., respectively.

Friday and Saturday, 17th and 18th. Sunset is at 5:08 p.m. Astronomical twilight ends at 6:39 p.m. The Moon sets at 3:14 and 3:38 p.m., respectively.

December Sessions: 8th and 9th; 15th and 16th.

**FRANKLIN CO. PARKS DEPT./RVAS PUBLIC STARGAZE:** Saturday, November 11th, 5:45 p.m., Franklin County Recreational Park. For County residents; RVAS members welcome to participate. Call the RVAS Message Line, 540-774-5651, for information. (Next session: March 2007, date to be determined.)

**ROANOKE CITY PARKS DEPT./RVAS PUBLIC STARGAZE:** Saturday, November 18th, 5:45 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: December 16th, 5:30 p.m., Cahas Overlook.)

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

Roanoke Valley Astronomical Society  
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