

# RVAS NEWSLETTER



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



Vol. 24 - No. 3

March 2007

## CAN YOU SEE THE STARS?

By John Goss

Join thousands of other students, families and citizen-scientists hunting for stars during March 8 - 21, 2007. Take part in this international event called GLOBE at Night to observe the nighttime sky and learn more about light pollution around the world.

GLOBE at Night is an easy observation and reporting activity that takes approximately 15-30 minutes to complete. Citizen-scientists record the brightness of the night sky by matching its appearance toward the constellation Orion with 1 of 7 stellar maps of different limiting magnitude. They then submit measurements on-line at [www.globe.gov/globeatnight/](http://www.globe.gov/globeatnight/). Resulting maps of all observations are created and placed back on-line by the GLOBE at Night staff within

the couple of weeks that follow.

The five easy star-hunting steps, for which more information is provided on-line, are:

- 1) Find your latitude and longitude.
- 2) Find Orion by going outside an hour after sunset (about 7-10pm local time)
- 3) Match your nighttime sky to one of our magnitude charts.
- 4) Report your observation on our website.
- 5) Compare your observation to thousands around the world.

Helpful and user-friendly ancillary materials such as a teacher packet and science standards, a family packet, and student games and

information are provided on-line at [www.globe.gov/globeatnight/](http://www.globe.gov/globeatnight/).

You can also subscribe to our mailing list to receive updates and results of this campaign. Visit [www.globe.gov/globeatnight/](http://www.globe.gov/globeatnight/) and click on "subscribe" at the bottom of the webpage.

During the 2006 event over 18,000 people from 96 countries submitted observations, including data from every U.S. state. Help us exceed these numbers in 2007!

GLOBE at Night is a collaboration between the National Optical Astronomy Observatory ([www.noao.edu](http://www.noao.edu)), The GLOBE Program ([www.globe.gov](http://www.globe.gov)), Centro de Apoyo a la Didactica de la Astronomia, Windows to the Universe ([www.windows.ucar.edu](http://www.windows.ucar.edu)), The International Dark-Sky Association ([www.darksky.org](http://www.darksky.org)) and Environmental Systems Research Institute, Inc.

## ECLIPSED MOON RISING AT CAHAS MTN. OVERLOOK

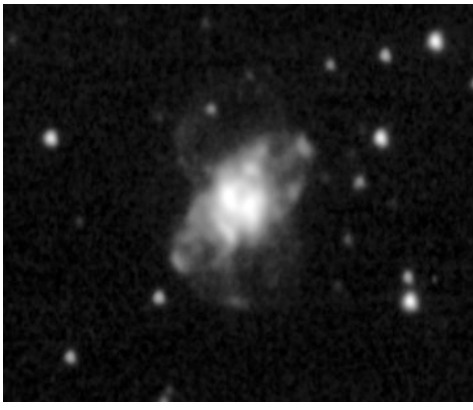
By Mike Overacker - RVAS President

The RVAS is conducting a public outreach program at the Cahas Mountain Overlook on the evening of Saturday, March 3, 2007. The reason for this outreach is the first of two lunar eclipses that will be visible in this area this year. This eclipse will feature the moon already in the middle of umbral eclipse as the moon rises. This should provide an awesome sight,

and this type of opportunity does not come around very often.

This is an excellent opportunity for members to get out and be involved in the club and provide outreach to the interested public, as well as meeting the active member requirement for public outreach. Remember, the active membership level reduces your next year membership fees. Members attending this event

should be at the Cahas Mountain Overlook at Milepost 139 on the Blue Ridge Parkway by 6:00 P.M. This will give us time to coordinate the event before the moon rises. The event will be cancelled if weather interferes with the plans. If you planning to attend, and did not sign up at the meeting, please contact Mike Overacker at [mike@overacker.com](mailto:mike@overacker.com), and Mark Hodges at [markh5@cox.net](mailto:markh5@cox.net).



## MYSTERY OBJECT

This object can be found in the constellation south of the "Big Dog". It has the distinction of containing the "hottest" one of these.

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

ka-8-inl@hotmail.com

# CLUB INFORMATION AND NEWS

## Welcome to the RVAS

The RVAS wishes to welcome four new members to the RVAS. A big welcome to Jeff Puuri, Paul Gensurosky, Scott Pierce, and Sterling Ellsworth. We hope you enjoy the RVAS, and stay for a long time.

## Leaving the RVAS

Steve and Barbara Manuel have left the RVAS. Steve resigned his position as Vice President and left the club. An article that he wrote is in this newsletter. He wrote it last month, but I did not have room in last months newsletter to run it.

## Blue Ridge Parkway Tips

I have been talking with the Parkway Rangers, and they wanted the club to know that if you ever have any problems with people at the overlooks we are using for observing, we need to call them at 1-800-PARKWATCH. If a BRP Ranger is not available, either the Roanoke County Police or Floyd County Sheriffs will answer the call. Also, remember to contact your US Representatives and US Senators and ask them to provide funding for the Blue Ridge Parkway. If we want to continue to use this resource, it helps to have it fully functional, safe, and available. Observe the speed limit on the Blue Ridge Parkway.

# ASTRO-QUIZ

While conducting an observing session for a public group, someone asks you what the distance to the constellation Orion is. What might you respond?

Answer to Last Month's Astro-Quiz: Most people understand a "Blue Moon" to mean a second full moon occurring in any month. But this may mistakenly interpret an earlier definition in which the Blue Moon is the third full moon within a season having four full moons. There is also a definition from a New England farmer's almanac of the early 1900's in which a Blue Moon is the full moon occurring during the last complete month within a season having four full moons. By this definition, Blue Moons could only occur during February, May, August and November.

The Roanoke Valley Astronomical Society is a membership organization of amateur astronomers dedicated to the pursuit of astronomical 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); **Vacant**, Vice President (000-0000); **Mark Hodges**, Secretary (774-5039); **Jeff Suhr**, Treasurer / Membership Coordinator (563-0079); **Dave Thomas**, Executive Committee Member-At-Large (434 237-5135); **Katherine Hix**, Immediate Past President (334-2443); **Paul Caffrey**, Past President (345-2847); **Roger Pommerenke**, Webmaster (774-5823)



## LAST MONTH'S MYSTERY OBJECT

The February mystery object was M33 in Triangulum. Also known as NGC598 or the Triangulum Galaxy.

Located at RA 01h 33' 50.9",  
DEC. +30 deg 39' 36".

M33 shines at magnitude 6.3 at a distance of 3 million light years.

## RVAS FEBRUARY MEETING MINUTES

*By Mark Hodges - RVAS Secretary*

Mike Overacker opened the meeting by handing out new official RVAS name tags for everyone. These name tags will be picked up by members when they attend the meetings. Members will keep the tags and be responsible for wearing them at all RVAS meetings, RVAS observings, and Public Outreach.

The RVAS welcomed our newest member Scott Pierce. Also, another new member, Sterling Ellsworth, joined the club, but could not stay for the meeting.

Mike also announced that Steve Manual has resigned as Vice President, and the VP position is now open if anyone would like to volunteer.

John Goss presented the deep sky object of the month - M35 in Gemini. John then gave the main program for the night - Dark Personal reflections on the size of the universe.

Mike Overacker then handed out Night Sky Network pins to John and Genevieve Goss for their work with the Night Sky Network teaching kits.

Mike Overacker explained the new membership levels which will be reported in more detail in the newsletter.

Jeff Suhr gave the treasurers report.

Chip Briggs has agreed to take the Hospitality committee chair.

The meeting was adjourned.

## 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>

### NEAF - NORTH EAST ASTRONOMY FORUM - SUFFERN, NY - APRIL 28 - 29, 2007



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).

### MASON DIXON STAR PARTY - WELLSVILLE, PA - JULY 11 - 15, 2007

The 18th Annual Mason Dixon Star Party is The Star Party for all members of the family. This location offers a flat and level camping /observing area with unlimited space for attendees. This is a Star Party for all members of the family. There will be workshops, speakers, field trips and raffle prizes for all ages. We also have camping areas, bunk houses, food, showers and facilities, horse shoe pits, sand volley ball courts and a swimming pool too!

[www.YCAS.org](http://www.YCAS.org) and <http://www.masondixonstarparty.org/>

# AURIGA - THE CHARIOTEER

*By Steve Manuel - Former Member*

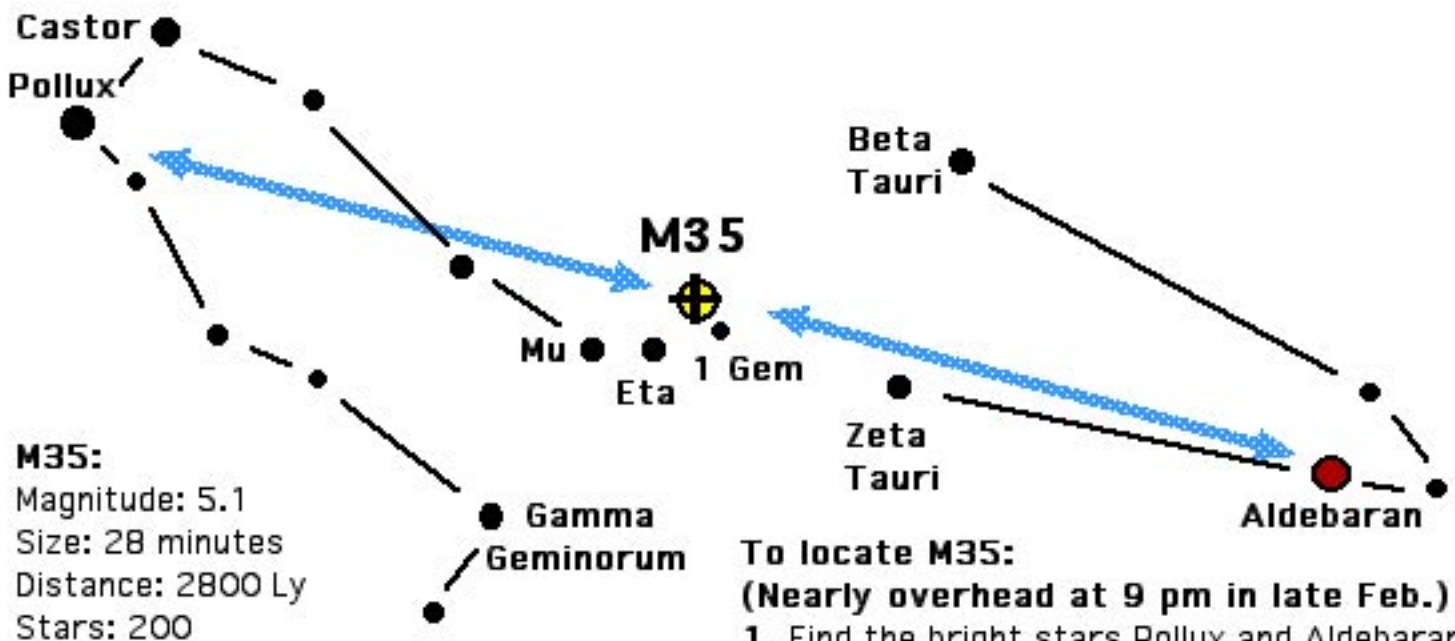
This ancient constellation brings to mind a fast-running, highway-savvy, tough warrior as he commands his four-wheeled speedster over rough and tumble Greek or Babylonian roadways. At least until you begin to explore a little further. According to mythology, he's not the helmeted warrior we thought. He's a shepherd with a smelly goat thrown over his left shoulder with perhaps one or two kids (baby goats) squeezed under the same arm. And he may be using the chariot more like a wheelchair than a sporty babe magnet. Some versions portray him as the lame son of Vulcan.

This time of year you'll find him due east at sunset, directly over the head and shoulders of Orion, separated only by the horns of Taurus the Bull. As the night bears on he'll ride the Milky Way straight overhead. Look for bright Capella, which makes up his left shoulder. Trace four other fairly prominent stars (including Alnath/Almaaz at the tip of Taurus' right horn) to form a rough pentagon, and for the most part you have Auriga, the Charioteer in your sights. Besides Capella, which is actually a group of stars including a couple of Sun-like yellow ones that make it stand out so yellow and bright, you'll want to zoom in on three prominent Messier objects, M36, M37, and M38. These are

found in the lower portion of the constellation if you use the Bull's Alnath as the lowest boundary star. Trace a line from Orion's Betelgeuse to Capella and you'll cross right through M38 and M36. M37 falls a bit outside the Auriga pentagon, but still in the vicinity of its neighbor clusters. These approximate 6.00 magnitude open clusters can be seen with good eyesight in dark skies and easily with binoculars.

Now the next trick is to close one eye, tilt your head about 80 degrees to your own shoulder and tug on the opposing ear. Try to make out the raised lettering on the left front wheel of the chariot. Then you will see as the ancients saw!

## Deep Sky Object of the Month: M35, an open cluster



**M35:**  
 Magnitude: 5.1  
 Size: 28 minutes  
 Distance: 2800 Ly  
 Stars: 200

**NGC 2158:**  
 Magnitude: 8.6  
 Size: 5 minutes  
 Distance: 16,000 Ly

- To locate M35:**  
**(Nearly overhead at 9 pm in late Feb.)**
1. Find the bright stars Pollux and Aldebaran.
  2. Draw a line between them.
  3. M35 is located 1/2 way between them.
  4. Binoculars will reveal a grainy smudge.
  5. Telescopes will also show open cluster NGC 2158 in the same field.

# CHANGES IN DUES AND MEMBERSHIPS

*By Mike Overacker - RVAS President*

Several changes have been made in the way the RVAS handles memberships and dues. The first change is a "late payment" charge for renewing members who pay their dues after July 31 in their renewal year. Renewing members are required to pay their RVAS dues before July 1. Many members in the past years have been late in making their dues payments. This action, in turn, has caused the RVAS to have an inaccurate count of members when the Astronomical League dues were paid. The RVAS does not want to assess this late fee. However, it will be charged to members for late dues payments.

Another change is a way for RVAS members to reduce their dues by bringing in a new "Dues Paying" member to the RVAS. If an RVAS member brings a new

person, or family, to the club and the new member(s) join the RVAS, the member who brought in the new person, or persons, will get a \$5.00 discount on their next dues year. This is a "once a year" benefit, but we still encourage you to get as many people as you can to join the RVAS. This benefit is effective February 1, 2007.

A third change will benefit the RVAS members who are involved with the RVAS, and spend time with RVAS events and programs. All RVAS members are now RVAS Supporting Members. There is now another level of membership called RVAS Active Members. To get the Active Member status, there is a short list of requirements that must be met, and documented, to reach the new membership level. If a supporting member, in a fiscal year (July 1 to June 30), they will reach the Active Member level and

will receive a \$5.00 discount on their next years dues. This is not a lot of activity for any member, and 3 members have already met the requirements, with about 10 others that are close to the requirements. This is a great way for the RVAS to recognize members who put the time into the RVAS to help make us a better club. It is also a way to reward that effort with a discount on their dues. So, any member who reaches the "Active Member" level and brings in a new, dues paying, member to the RVAS can save \$10.00 a year on their club dues.

We do realize that a lot of our membership will wish to continue to be Supporting Members of the RVAS, and that is great. We just wanted to give interested members something to strive for, and recognize them for their efforts. With this new system, everyone wins.

## Requirements for attaining "Active Member" Level

- 1) *Attends at least 3 meetings during the year, not counting the socials or the picnic*
- 2) *Is actively involved on a committee*
- 3) *Attends 2 monthly club observings*
- 4) *Attends 1 public outreach program*
- 5) *Writes 1 Newsletter article, or does a presentation to the club as a guest speaker*
- 6) *Pays club dues before July 1*

---

## THE CHESAPEAKE BAY CRATER

*By Dave Thomas - RVAS MAL*

During the last few years there have been many discoveries of ancient impact craters around the world. In the continental United States the best known of these is the Barringer crater in Arizona, also known as Meteor Crater. The largest impact crater in the United States is located here in Virginia beneath the Chesapeake Bay. Thirty-five million years ago,

during the Eocene era, an object entered the Earth's atmosphere and impacted in eastern Virginia. The resulting crater was twice the size of the state of Rhode Island and deeper than the Grand Canyon. The impact blasted debris as far away as New Jersey. The crater is now buried at a depth of over one half mile in what is now called the Delmarva Peninsula. The impact not only made a huge scar in the Earth's crust it also created faults that

make the ground unstable during earthquakes. This presents a hazard for population centers in the area of the crater. Thirty five million years ago such impacts were probably more likely to occur than at present. If an impact of that magnitude happened today it would certainly be one of the greatest catastrophes in human history. We can take solace in that the odds of such an event are astronomical.

# ***Society Events and Activities for March 2007***

**MONTHLY MEETING:** Monday, March 19th, 7:30 p.m. Fifth floor meeting room, Center In The Square, Roanoke. The evening's program will be Telescopes and Targets - Information on Telescopes, Mounts, and what you can see - Presented by RVAS President, Mike Overacker

**"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, 9th and 10th. Sunset is at 6:22 p.m. Astronomical twilight ends at 7:49 p.m. The Moon rises at 12:05 and 1:07 a.m., respectively. (Note: DST begins at 2:00 a.m. on March 11th.)

Friday and Saturday, 16th and 17th. Sunset is at 7:29 p.m. Astronomical twilight ends at 8:56 p.m. The Moon sets at 4:47 and 6:02 p.m., respectively.

April Sessions: 6th and 7th; 13th and 14th.

**FRANKLIN CO. PARKS DEPT./RVAS PUBLIC STARGAZE:** Saturday, March 17th, 8:00 p.m., Franklin County Recreational Park. For Franklin County residents; RVAS members welcome to participate. Call the RVAS Message Line, 540-774-5651, for information. (Next session: June 9th, 9:15 p.m., Cahas Overlook.)

**ROANOKE CITY PARKS DEPT./RVAS PUBLIC STARGAZE:** Saturday, March 10th, 7:00 p.m., Cahas Overlook, milepost 139, Blue Ridge Parkway. For City, County and other area residents; RVAS

Roanoke Valley Astronomical Society  
3578 Berry Hill Drive  
Roanoke, VA 24018