



RVAS

Roanoke Valley Astronomical Society

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



Vol. 22 - No. 8

August 2005

USPS INTRODUCES CONSTELLATION STAMPS

The United State Postal Service (USPS) has announced the production of a block of four Constellation Stamps. The stamps will display 4 different constellations. Lyra, Orion, Pegasus, and Leo will be represented on the stamps. The constellation outline will be surrounded by a artistic overlay of the constellation figure. These will be \$.37 standard postage stamps. The USPS has scheduled the release date for October 1, 2005. Stop by your local Post Office and snap up these stamps. Show your pride and love for your astronomy.



Photo by United States Postal Service

RVAS TO CHOOSE BETWEEN TWO LOGOS

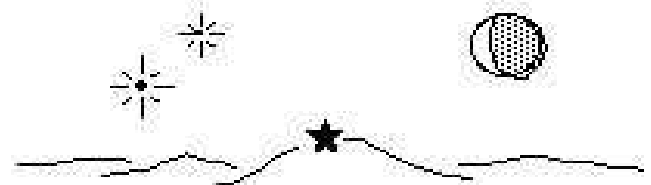
The RVAS is preparing to make new shirts and embroidering services available in August. It has been almost 2 years since the service was last available. This year, the club members can choose which logo they think we should use for the new shirts. The older logo has

been in use for some time now and shows the State of Virginia with a star in place for Roanoke. Above the state is the Pleiades. The new logos have the star above Mill Mountain. On one logo, above the mountain is a comet. On the other logo, there are a few stars and a

crescent moon. The decision will be made at the August meeting, so be there to voice your opinion and vote. Also, you can voice your opinion to any of the E-Board members, but you must attend the meeting to vote.



**ROANOKE VALLEY
ASTRONOMICAL SOCIETY**



**ROANOKE VALLEY
ASTRONOMICAL SOCIETY**

JULY 2005 RVAS MEETING NOTES

By Mark Hodges, RVAS Secretary

July's meeting had 28 members present.

The meeting opened with a video from our favorite astronomer Jack Horkheimer (Pleiades)

Katherine gave a treasurers report for Lynn, who is recovering nicely. She also reminded members that dues are due by July 31. She also brought in new 2006 calendars, these are still available for \$7.00 each if interested please call Katherine. Also Oceanside Photo and Telescope have issued the club a discount card that is good for 10% off any purchase. More details later.

John Goss is going to take orders

to have T-shirts printed with the club logo. These can be shirts you supply and there is a choice of two logos the original club logo or the logo that is on the coffee mug.

Mike Overacker presented the constellation of the month, for July it was Lyra.

John Goss also presented the deep sky object of the month, and a challenge.

The object is Eta Aquila a variable star in Aquila it has a period of only 7 days.

Katherine introduced our guest speaker Dr. David Scaer. He gave a very interesting talk on satellite observing and photography. ✦



MYSTERY OBJECT

This nebula isn't blue, and I doubt Brooke Shields will be there

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

thomasde-ka8inl@worldnet.att.net

ASTRO-QUIZ

What is the least expensive enhancement you can make to your telescope to improve its performance?

Answer to Last Month's Astro-Quiz: Our dark-adapted pupils have diameters of 5 mm (older adults) to 7 mm (youth). If the diameter of the bundled light rays making an image exiting an eyepiece, known as the "exit pupil," exceeds our pupils, then the excess light in the image is wasted. The exit pupil of a telescope when using a given eyepiece is found by multiplying the aperture by the eyepiece focal length and dividing the result by the telescope's focal length. A 15-inch (381 mm) f/4.5 telescope has a focal length of 1715 mm. With a 40 mm eyepiece, the exit pupil equals $(381 \times 40)/1715$, which is 8.9 mm, and much more than even young eyes can admit. Rearranging terms, we can compute that 23 mm and 32 mm eyepieces are the largest useful focal lengths for 5 mm and 7 mm eyes, respectively. You probably won't find a 23 mm eyepiece, but 26 mm and 32 mm are standard.

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

Those RVAS members who have been life-long devotees to astronomy can usually identify the moment that they became hooked on the hobby. John Goss reports that, at 6 years of age, his older sister disabused him of the idea that "the sun shines in the daytime and the moon shines at night". Seeing the moon in the daytime was enough to pique his interest and to encourage him to find out more about space. Dave Godman's move to Florida brought US space exploration to the forefront of his awareness, an interest that he retains to this day.

Most adults who love astronomy can link their first exposure to the hobby to one individual...a relative, Scout leader, teacher, neighbor, etc., who took a few moments to expand their realm from an earthly perspective to a more cosmological one. With a gazillion activities competing for the attention of today's kids and with compromised dark skies which fail to entice their vision upwards, is it any wonder that nationwide most amateur astronomers fall in the "aging baby-boomer" category?

How can we help interest children in astronomy?

First of all, be aware that Virginia Standards of Learning contain a space/astronomy component in physical sciences and offer to provide a hands-on experience to a local classroom. (RVAS has lesson kits with instructions to make the process flow smoothly.)

Secondly, point the parents of potential young astronomers to this

website: <http://www.dustbunny.com/afk/> which provides sky maps, sections on planets, constellations and sky wonders PLUS a 28-day guide to beginning observing requiring no astronomy equipment other than a pair of eyeballs!

Third, purchase the Astronomical League's beginning observing guides such as Sky Puppies and Universe Sampler as gifts for young astronomers or as guides for your own observing with them: <http://www.astroleague.org/>.

Fourth, add an observing session or a demonstration to family gatherings such as holiday dinners, family reunion picnics, neighborhood cook-outs, etc. (Frank Baratta, Dave Godman and John Goss can offer you pointers on using golfballs, string, and marbles to illustrate our solar system.) Finally, de-mystify the hobby by encouraging kids (and adults!) to keep looking up. Once you've cautioned them about not looking at the sun, challenge them to look at the sky through an Image Isolator (one of Jack Horkheimer's toilet tissue empty rolls!) or through a small pair of binoculars.

To seasoned observers, it's hard to imagine how people, children as well as adults, can be so uninformed about the sky above. A few simple pointers, made in a friendly, non-condescending way, can open their eyes to the universe and you will become that person, cited decades from now, credited with their introduction to astronomy. Enjoy! ✦

Quote

"Taking notes on wine was a proving ground for my research on the universe.

Now when I describe the beauty of a nebula, my vocabulary is inspired by years of wine commentary."

---Neil deGrasse Tyson, astrophysicist and director of the Hayden Planetarium, on how years of recording his personal wine reflections pays off in galactic studies.

LAST MONTH'S MYSTERY OBJECT

The first planetary nebula discovered, M27, is our Mystery Object for July. It has an angular diameter of 8' and a faint halo extending out to 15'.

The central star is a blue dwarf of magnitude 13.5. It lies at a distance of 1,250 light years. The nebula shines at magnitude 7.4 and is visible with 10x50 binoculars.



Deep Sky Object of the Month Project:

Eta Aquilae, a Cepheid variable star

Maximum magnitude: 3.7

Minimum magnitude: 4.5

Period: 7 days 4 hrs 14 min (7.17644 days)

Recording your Observations

A. Record date and time. Convert to decimal days.

B. Compare Eta with Delta and Iota and assign it the following values:

1 - as bright as Delta

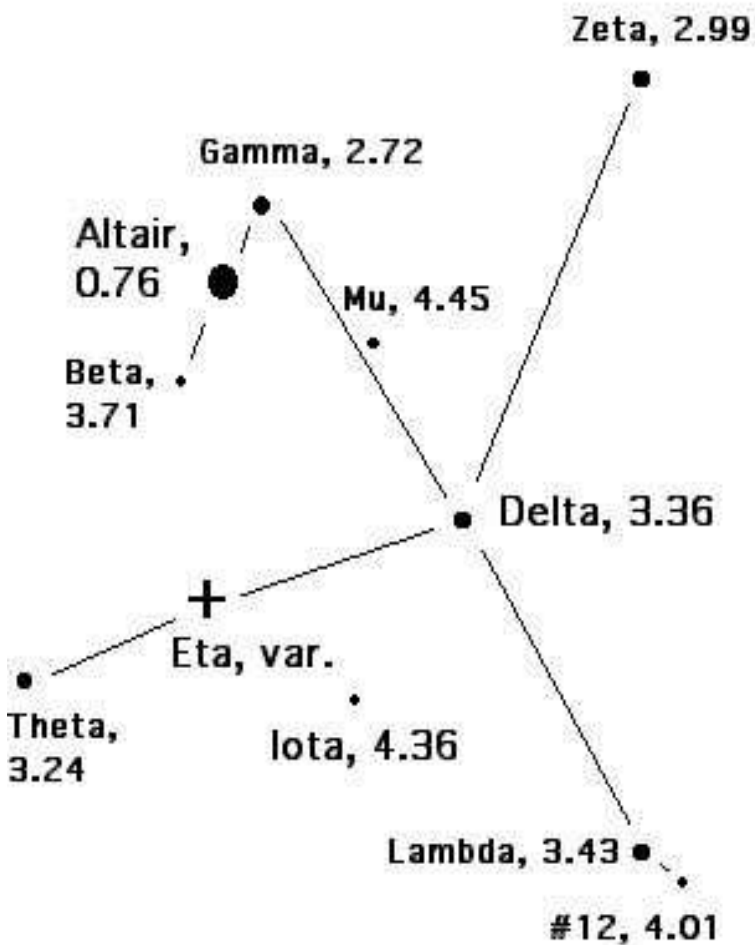
2 - slightly fainter than Delta

3 - halfway between Delta and Iota

4 - slightly brighter than Iota

5 - as faint as Iota

C. Plot decimal days vs. brightness values

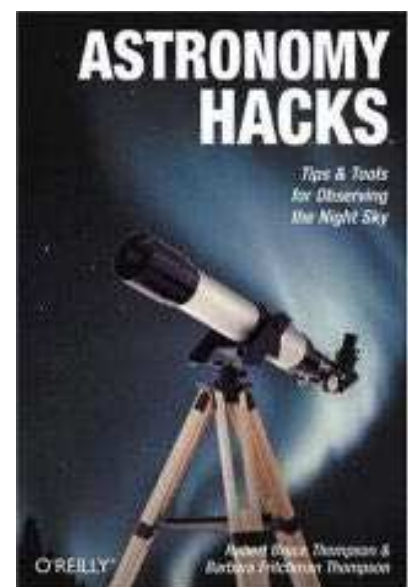


WSAL OFFICERS PUBLISH BOOK - "ASTRONOMY HACKS"

By Mike Overacker, RVAS VP

Robert Bruce Thompson and Barbara Thompson have written and published a book. This one is an astronomy book, and from a brief scan, it is a good book. Who, you might ask, are Robert and Barbara Thompson? Well, Robert is President and Barbara is Treasurer of the Winston Salem Astronomical League (WSAL) and friends of mine. You see, I am also a member of WSAL. John Goss told me he had received a book from the Thompsons, so I gave Robert a call. He filled me in on the info about the book with a few emails.

I have not had time to read this book, but I have had time to get an idea of the value. First off, I finally know what Robert looks like. I have never seen him in the daytime, so the pictures in this book will allow me to recognize him if I ever see him away from a dark site observing session. Second, this book is full of info on all types of subjects. With that fact alone, this book should be on your short list of books to buy. It is available at amazon.com. The name of the book is "Astronomy Hacks". I am definitely going to buy at least one copy and get the authors to sign it.



UPCOMING EVENTS



ALCON EXPO 2005 - KANSAS CITY, MO - AUGUST 12-13, 2005

The Astronomical League is proud to announce the 2005 annual convention to be held in Kansas City, August 12-13, 2005.

The League's Council meeting will be held August 11 at the National Office, our first council meeting at the facility. There will also be an astronomical trade show and vendor exposition, a Star-B-Q at Powell Observatory, and a private exhibition at the Linda Hall Library where you can hold a Galileo first edition and read Herschel's journal. Our goal will be to increase participation by astronomers and companies and to make this the best trade show we've ever hosted. The meetings, annual awards banquet, trade show, and speakers will all be held at the Overland Park, Kansas, Sheraton Hotel and Convention Center.

For information about the hotel, call 913-234-2100,

or toll free 866-837-4214. Be sure to mention the Astronomical League for a discount rate.

For additional information, contact Mr. Carroll Iorg, 7241 Jarboe Street, Kansas City, MO 64114. Phone 816-444-4878 or e-mail

Carroll at: Carroll-Iorg@kc.rr.com.

NOVAC STAR GAZE 2005 - CROCKETT PARK - WARRENTON, VA - OCTOBER 1, 2005

The Northern Virginia Astronomy Club (NOVAC) is presenting their annual Star Gaze on Saturday, October 1, at Crockett Park near Warrenton (Warrenton VA is less than 4 hours from Roanoke). They will have two famous guests: John Dobson (of the Dobsonian telescope fame) and Richard Berry (telescope and CCD guru). Mark your Calendars!

VAAS 2005 - VIRGINIA WESTERN COMMUNITY COLLEGE - ROANOKE, VA - NOVEMBER 5, 2005

RVAS is happy to announce that Roanoke is the host city for the Annual Convention of the Virginia Association of Astronomical Societies (VAAS). This years convention will be held at Virginia Western Community College on Saturday, November 5th, 2005. Speakers are John Davis from Rochester, NY; Johnny Horne from Wilmington, NC; Dr. Dwight Holland from Roanoke, VA; and Michael Good from Roanoke, VA.. We already have a wide selection of door prizes to be given away at the event, plus more are coming in. This is a "Must Attend" event for any astronomy enthusiast.

For more information, please visit the website at: <http://www.vaas2005.com>

***** IMPORTANT - DUES AND SUBSCRIPTION NOTICE *****

It's renewal time for RVAS memberships, most of which expire on June 30, 2005. If your membership expires at another time, you'll receive a special notice. If you want to know now when your membership expires, **call Frank Baratta at 774-5651**. Membership categories are:

INDIVIDUAL (\$20.00 per year) - RVAS and Astronomical League membership for you.

FAMILY (\$25.00 per year) - RVAS and Astronomical League membership for you and your family.

STUDENT (\$10.00 per year) -RVAS and Astronomical League membership for a full-time student.

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

MAGAZINES: Members may subscribe to *Astronomy* (\$29.00) and/or *Sky & Telescope* (\$32.95) at the indicated substantial club discount rates. Subscriptions are sent to the publishers each April 15th, August 15th and December 15th. Renewal payments should be submitted by whichever of these dates is at least 4 months prior to the expiration of your magazine(s). Orders may be added to dues payments, or submitted separately.

Society Events and Activities for August 2005

MONTHLY MEETING: Monday, August 15th, 7:30 p.m. Fifth floor meeting room, Center In The Square, Roanoke. The evening's program will be Einstein - Relativity by Dr. Frank Munley. 2005 Year of Physics presentation.

"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, August 5th and 6th. Sunset is at 8:23 p.m. Astronomical twilight ends at 10:03 p.m. The Moon sets at 9:06 and 9:31 p.m., respectively.

- Thursday and Friday, August 11th and 12th. Perseid Meteor Shower Watches, weather permitting, beginning 11:00 p.m. Moonset 11:25 and 11:56 p.m., respectively.

- Friday and Saturday, August 26th and 27th. Sunset is at 7:56 p.m. Astronomical twilight ends at 9:29 p.m. The Moon rises at 12:02 and 12:46 a.m., respectively.

September Sessions: 2nd and 3rd; 23rd and 24th; 30th and (Oct.) 1st. (Note: September 24th is the Annual RVAS Picnic and Star Party at the Franklin County Recreational Park.)

FRANKLIN CO. PARKS DEPT./RVAS PUBLIC STARGAZE: Saturday, August 27th, 8:30 p.m., Franklin Co. Recreational Park. For County residents; RVAS members welcome to participate. Call the RVAS Message Line, 540-774-5651, for information. (Next session: November 26th, 6:00 p.m..)

ROANOKE CITY PARKS DEPT./RVAS PUBLIC STARGAZE: Saturday, August 6th, 9:00 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: September 3rd, 8:15 p.m., Cahas Overlook.)

RVAS EXECUTIVE COMMITTEE MEETING: Sunday, August 7th, 3:00 p.m., Katherine Hix's house.

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