



# **RVAS NEWSLETTER**

Roanoke Valley Astronomical Society (RVAS)

News About Amateur Astronomy

In Southwestern Virginia

<http://www.roavas.org>



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July 2008

## **A Trip to Devils Tower National Monument**

*By Vincent St. Angelo*

It's a mecca for any fan of Close Encounters of the 3rd kind. For those who have never seen the movie, the premise is that a benevolent alien race makes contact with certain humans and puts an innate drive for them to make a pilgrimage to Devil's Tower. I won't get into the details, but I've always appreciated the beautiful screen shots of Wyoming and the area around Devil's Tower along with the masterful score written by a then young John Williams. Back in 2003 our family decided pull the camper out west to Yellowstone National Park and stop along the way there and back at certain points of interest. I'll save the stories about Yellowstone and the Tetons for another day. They are magnificent in their own right. On the way back home to Lynchburg, we budgeted time for a stop at Devil's Tower and the Black Hills of SD (Mt. Rushmore). A drive of 5 or so hours separates Devil's Tower from Mt. Rushmore. To get there, one must exit from

I-90 and drive along pretty good condition 2-way highways to Devil's Tower. The scenery is magnificent rolling hills. At a distance one can just begin to glimpse the distinctive flat-topped mound that is Devil's Tower. There is a KOA campground just next to the entrance of the park and that was our stopping point. As we pulled-in the sun was about 1 or so hours from setting. I looked up and the sky was a beautiful deep blue with no clouds in the sky. Save for one or 2 mercury vapor lights at the campground, the next nearest population center was probably over 100 miles away. This particular campground was the location of several field shots taken during Close Encounters. To commemorate this fact, every night the campground has a showing of Close Encounters outside on a large projection TV under the stars with Devil's Tower as a backdrop. At dusk, dinner consumed, we moved our chairs and blankets to the movie site and the show began. What an experience.

The night sky was just ablaze with stars no doubt down to 6th magnitude all adding to the experience.

After the movie we ventured out to the clear parts of the campground. These were absolutely the darkest skies I have ever experienced and I was astounded with the views. We sat out for a while appreciating the views. I was equipped only with binoculars, but the views would have just been wasted using a 1 degree eyepiece. We were overwhelmed.

Anyway, the next day we went into the park and spent half the day basking under the light of the great big star visiting the tower itself. The tower abuts from the ground and is the highest point around and is very distinctive. Our time almost up, we reluctantly hitched up the camper and piled in for the next stop.

If you ever travel out west, don't miss this astronomical mecca. You won't be disappointed.

***The RVAS is starting a new fiscal year with a new slate of officers. RVAS members can help make this club better by helping these officers with support and ideas. Take time to be involved. Not for yourself, but for the club and your fellow members. Look for opportunities to give, rather than take. It is the helpful, giving members that make a club great.***

# Club Information and News

## Lynchburg College Belk Observatory



The Lynchburg College Observatory is well on its way to full functionality. The scope has been undergoing targeting training, and although it is hitting targets in the field of view of most eyepieces, it must be trained a bit more before the scope is ready for the masses. Dr. Neal Sumerlin has done a great job so far, and hopes to have the docents working public observing nights soon.

## Mystery Object

Can you guess this object?

Send your best guess to Dave Thomas, our Mystery Object Columnist, at [ka-8-inl@hotmail.com](mailto:ka-8-inl@hotmail.com)

## VAAS 2008 Announced

The Virginia Association of Astronomical Societies has announced the date of VAAS 2008. Held by the Norfolk Astronomical Society this year, it will be held in Norge VA., in James City County, VA..

## RVAS Membership Discounts Available

The RVAS gives \$5.00 discounts to members that meet certain levels of activity in the RVAS. If you attend at least 3 RVAS meetings (not including socials and the picnic), 2 Member observings, 1 Public Outreach, work on an RVAS Committee, write at least one newsletter article or speak at a meeting, and pay your dues on time, you can get a \$5.00 discount on your next years dues. For more information, Contact RVAS Immediate Past President, Mike Overacker, at [impastpresident@roavas.com](mailto:impastpresident@roavas.com)

# ASTRO-QUIZ

Beyond the lesser amount of grinding required for an f/8 mirror (see answer to last month's quiz below), what other characteristic of f/8 mirrors has made them especially desirable to amateur mirror makers?

Answer to Last Month's Astro-Quiz: "Sagitta," the arrow, is a constellation. However, "sagitta" is also a term denoting the depth of the curve that must be ground into a flat mirror blank to produce a surface that will properly focus an image. The depth is found by the formula  $r/8(f)$ , where  $r$  is the radius of the mirror and  $f$  is its focal ratio. For example, a 6-inch diameter f/5 mirror, requires a 0.075" deep curve (i.e.,  $3/(8 \times 5)$ ), whereas an f/8 mirror needs only a 0.047" deep curve (i.e.,  $3/(8 \times 8)$ ). This difference partly explains why the mirror of choice of amateur mirror makers was once the 6" f/8.

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 dues are \$25.00; student dues are \$10.00. Articles, quotes, etc. published in the newsletter do not necessarily reflect the views of the RVAS or its editor.

**RVAS web page: <http://www.roavas.org>**

### Officers/Executive Committee:

**Kristen Gillespie**, President ([president@roavas.com](mailto:president@roavas.com))

**Randy Sowden**, Vice President ([vicepresident@roavas.com](mailto:vicepresident@roavas.com))

**Mark Hodges**, Secretary ([secretary@roavas.com](mailto:secretary@roavas.com))

**Jeff Suhr**, Treasurer / Information Director ([treasurer@roavas.com](mailto:treasurer@roavas.com))

**Dave Thomas**, EC Member-At-Large ([memberatlarge@roavas.com](mailto:memberatlarge@roavas.com))

**Michael Overacker**, Immediate Past President / Newsletter Editor / Webmaster ([impastpresident@roavas.com](mailto:impastpresident@roavas.com))

**Katherine Hix**, Past President ([pastpresident@roavas.com](mailto:pastpresident@roavas.com))



Photo Courtesy of ESO

## Last Month's Mystery Object

The June mystery object is a dark nebula, or Bok nebula, designated Barnard 68. It is located in the constellation Ophiuchus at RA 17:22:38, Dec. -23 Deg 43.8 minutes.

At a distance of 500 light years it is a dark molecular cloud that blocks light from stars behind it but not infrared radiation.

## Summer Stargazing At Its' Best

By Clark Thomas

Summer brings warm muggy nights. That's great for wearing light gear outdoors, but it's fatal for faint fuzzies.

Planets and other small, bright objects penetrate the humid haze of a stable high pressure dome overhead. Stable atmospheric levels yield excellent seeing. Pump up the power!

On the other hand, if you want to "capture" faint fuzzies, look for transparent skies following the passing of a cold/cool front. Either the first or second night could provide a good combination of low humidity (with up to mag. 6 transparency at the zenith), and sufficiently steady skies for your quarry.

Whereas planets and tight double stars require steady

skies, large objects with low surface brightness can show well even when the seeing is so-so. Most of these objects remain fuzzy under the best conditions. That's OK, because visually capturing the quarry itself is for most of us the primary goal. With a sufficiently hazy sky the largest telescope will have difficulty seeing much of anything beyond our galaxy. High moisture simply blocks faint light from the ethereal arms of distant galaxies, leaving only their bright cores. On the other hand, an exceptionally transparent sky can allow an 8-inch scope to perform as well as a 16-inch scope would under so-so transparency. On Monday night, June 23rd, I was all alone at Cahas. It was

just after the passage of a cool front with lower humidity. Seeing was only fair, as the sky was not yet stable. Transparency was excellent. Despite light from the NRV, I was able to see many Virgo galaxies; and lots of detail in M51 (the whirlpool); and even some detail in M101 (the pin-wheel). On a more humid night I would have seen much less.

The lesson here? Attend and enjoy our scheduled weekend club nights for camaraderie and the opportunity to learn from your friends. Some of those club nights will have magical transparency and seeing. If you want to have even more superb viewing sessions, look for special opportunities Mother Nature gives us, especially in the muggy summer.

## RVAS June Meeting Minutes

By Mark Hodges - RVAS Secretary

There were 19 members and visitors present.

The meeting was opened by **Mike Overacker**.

The evenings program was presented by **Randy Sowden** entitled Mayan Astronomy and Other Nonsensical Factoids.

**Mike Overacker** and **Mary Crouch** gave observing reports and several people reported seeing the ISS and Shuttle pass overhead.

**Jeff Suhr** wasn't present so **Mike Overacker** gave a treasures report.

**Mike Overacker** also announced the officers for the following year.

**Kristen Gillespie** - President  
**Randy Sowden** - Vice President  
**Mark Hodges** - Secretary  
**Jeff Suhr** - Treasurer  
**Dave Thomas** - Member at Large  
**Mike Overacker** presented the Constellation of the Month, this month it was Ophiuchus After which the meeting was adjourned.

# RVAS Membership Roster

<i>NAME</i>	<i>STREET ADDRESS</i>	<i>CITY</i>	<i>ST</i>	<i>ZIP</i>	<i>A/C</i>	<i>PHONE</i>	<i>MAIN E-MAIL ADDRESS</i>
Baratta, Frank & Carolyn							
Becker, Cliff	3120 Fleetwood Ave	Roanoke	VA	24015	540	774-1825	
Bowden, Rand	5225 Lipps Rd	Roanoke	VA	24018	540	772-3363	ranbow@excite.com
Briggs, Chip							
Caffrey, Paul & Grainne							
Crouch, Mary							
Davis, Fred & Stinnette, Sharon	1801 Mount Vernon Rd SW	Roanoke	VA	24015	540	982-8764	
Evans, Greg							
Gillespie, Kristen							
Godman, Dave	2615 Charing Cross Dr SW	Roanoke	VA	24018	540	774-3337	
Good, Michael							
Goss, John & Genevieve	932 Lee Lane	Fincastle	VA	24090	540	966-4606	ecoacres@rbnet.com
Grisso, Donnie							
Hamilton, Kevin & Emily							
Hill, Larry	5220 Hawkbill Circle	Roanoke	VA	24018	540	774-1903	larryhill@cox.net
Hix, Katherine							
Hodges, Mark							markh5@cox.net
Holtman, Ellen	316 Sunset Road	Salem	VA	24153	540	389-1514	
Jones, Bill							
Kolejka, Jiri	6991 Highfields Farm Circle	Roanoke	VA	24018	540	774-2256	jirikolejka@msn.com
McCredy, Chris							
Minnix, Melanie							
Montoro, Harry							
Noonkester, Scott		Blacksburg	VA				scottnoony@gmail.com
Overacker, Mchael					540	776-3092	mike@overacker.com
Pommerenke, Roger	5735 Equestrian Dr SW	Roanoke	VA	24018	540	774-5823	pommerenke@cox.net
Richert, Bob & Joel	415 Allison Ave SW	Roanoke	VA	24016	540	342-2837	richertrn@worldnet.att.net
Shadel, Gregg							
Shrewsbury, Scott							
Skelly, Tom							
Slonaker, Lynn							
Smith, Robert							
Sowden, Randy	2113 Stonemill Dr	Salem	VA	24153	540	389-8138	rrandomas@aol.com
St. Angelo, Vince							
Stinson, Ed & Lucy							
Suhr, Jeff	5827 Santa Anita Terrace	Roanoke	VA	24012	540	563-0079	jebesuhr@gmail.com
Thaler, David							
Thomas, Clark							
Thomas, David	605 Briarcliff Circle	Lynchburg	VA	24502	434	237-5135	ka-8-inl@hotmail.com
Vuich, Kathryn							
Witten, Thomas & Teresa							
Wood, Jeffrey & Maurelli, Nancy							
Young, Bob							

# UPCOMING EVENTS

## **Frank Baratta's Roanoke Parks and Recreation Public StarGaze - July 26, 2008**

Starts at 9:15 p.m. at the Cahas Mountain Overlook, milepost 139, Blue Ridge Parkway. For City, County and other area residents; Call 540-774-5651, for information.

## **Green Bank Starquest - Green Bank, WV- July 2-5, 2008**

One of the closer star parties to our area, this event is in the shadow of the Green Bank Radio observatory. This event seems to get better every year, so if you plan on hitting a star party this year, this one is a good choice. For further information, visit [www.greenbankstarquest.org/](http://www.greenbankstarquest.org/)

## **Mason Dixon Star Party - Wellsville, PA - July 30 - August 3, 2008**

The 19th 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! See [www.YCAS.org](http://www.YCAS.org) and <http://www.masondixonstarparty.org> for information

## **Almost Heaven Star Party - Spruce Knob, WV -July 31 - August 3, 2008**

Held at the darkest site in the East, the AHSP has amenities—hot showers, meal service, and internet access—you won't find at any other star party. Plus you'll enjoy daytime programs for the whole family—like hiking, birding, canoeing, caving, and mountain biking. Watch for more info at <http://www.ahsp.org/>

## **Frank Baratta's Franklin County Parks Public StarGaze - August 30, 2008**

Starts at 8:30p.m. at the Franklin County Recreation Park. Call 540-774-5651, for information.

## **Black Forest Star Party - Cherry Springs State Park, PA - September 5 - 7, 2008**

The Black Forest Star Party is an annual dark-sky amateur astronomy observing event hosted by the Central Pennsylvania Observers (CPO). Held since 1999, the BFSP generally spans a weekend in the late summer/early fall in Cherry Springs State Park in Potter County, Pennsylvania. Go to [www.bfsp.org](http://www.bfsp.org) for more info.

## **VAAS 2008 - Norge, VA - September 20, 2008**

The Virginia Association of Astronomical Societies (VAAS) will have their annual meeting in the Norfolk Area this year, at the James City County Library, just off I-64 (near Norge, VA). Observing and cookout being planned for that evening at nearby York River State Park.

## **AstroBlast 2008 Star Party - Franklin, PA - September 23 - 28, 2008**

ASTROBLAST is an annual event held by the Oil Region Astronomical Society. Our organization is blessed with a remote "dark sky" site located far from the light pollution of large urban areas. The event is held in the Lockwood Campground near Franklin, Pennsylvania. See [www.oras.org](http://www.oras.org) for more information.

## **Stella Della Valley XXII Star Party - Chalfont, PA - October 24 - 26, 2008**

Join the Bucks-Mont Astronomical Association in its 22nd year of the Stella Della Valley StarParty in beautiful Bucks County, Pennsylvania. The weekend will be filled with vendors, swap meet, a great pizza party and door prizes raffles, guest lecturers and of course two nights of terrific stargazing. Stella Della Valley has built a reputation as a friendly relaxed StarParty in southeastern PA, NJ, DE and NY.

## **Mid Atlantic Star Party - Robbins, NC - October 27 - November 2, 2008**

MASP 2008 continues the annual Mid-Atlantic Star Party tradition. MASP has been patterned after the examples of Stellafane the oldest Amateur Telescope Makers Convention which is in Vermont late summer and of the Winter Star Party which is in the Florida Keys mid-Winter. MASP exists for the benefit of its attendees and the astronomical community at large. MASP is located in the "Dark Park" East of Robbins, NC. This is about halfway between Raleigh and Charlotte and halfway between Winston-Salem and Fayetteville.

# ***Society Events and Activities for July 2008***

**MONTHLY MEETING:** Monday, July 21st, 7:30 p.m., Hopkins Planetarium, Fourth Floor, Center in the Square, Roanoke. The program for the evening is "Andromeda: Our Surprising Galactic Twin". Rachael Lynn Beaton, from UVa., will be our special Guest Speaker.

**"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, 4th and 5th. Sunset is at 8:44 p.m. Astronomical twilight ends at 10:35 p.m. The Moon sets at 10:17 and 10:50 p.m., respectively.

Friday and Saturday, 26th and 27th. Sunset is at 8:33 p.m. Astronomical twilight ends at 10:17 p.m. The Moon rises at 12:21 and 1:00 a.m., respectively.

August Sessions: 1st and 2nd; 22nd and 23rd; and 29th and 30th.

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

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