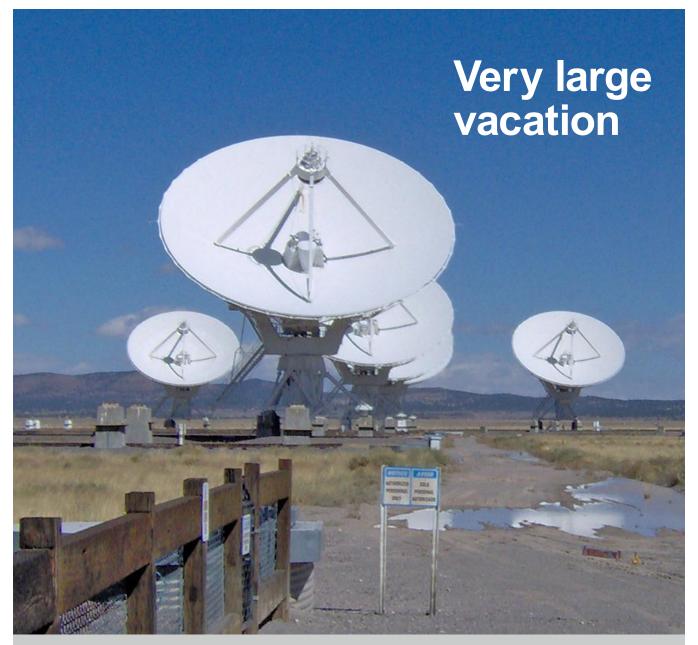


RIVER BEND ASTRONOMY CLUB NEWSLETTER



The size of the Very Large Array stuns visitors, both in terms of the scale of the site and the size of the 27 radio telescopes, which are configured in a "Y" pattern. RBAC member Lee Paul traveled to astronomy-themed destinations in Arizona and took this photo to prove it.

Stars set in the west

Rambling through the astronomy-themed sites of Arizona

BY LEE PAUL

ince my return to astronomy about a year ago following a 45-year leave of absence, I found that a few billion lights have been added to the night sky — and that the St. Louis area has received its fair share. To make matters worse, my beautiful back yard which abuts a 22-acre designated "greenspace", has many, many, beautiful trees. So many, in fact, I can see ~15% of the night's sky.

Determined not to be beaten by these astro-bugaboos, I got the idea of buying a trailer-camper and using it to go stargazing. Realizing why there are so many observatories in the Southwest due to its pristine skies, I began to compile a list of places that could be visited in a weeks' time and without terrible hardship to my sacroiliac. I had been using the camper to get away on short weekend trip to "dark sky" locations in southern Missouri, so it seemed a natural extention to check out the really dark skies of the West.

The selection's final cut left me with an itinerary of many of the most famous and compelling astro-sights in the southwest. My brother-in-law, a sort of 'closet' stargazer," got interested and decided to tag along for the nine day adventure. To put it another way, he wanted to get out of the house. He's also a great cook!

We departed on Friday the 13th of October. Being grounded in the sciences, we were undaunted by that foreboding date. We in fact were well prepared to spend a week in the little 24-foot camper, which I call "The Planet Prowler." To spare you some of the bumps and toilet breaks of the trip, we uneventfully cruised through Missouri and Oklahoma on I-44 all the way to Oklahoma City where we picked up I-40 for the remainder of the westbound trek.

About 30 miles east of Flagstaff, AZ, is the exit to 50,000-year-old Barringer Meteor Crater. This site was once considered an extinct volcano (they couldnt find a meteor anywhere) until D. M. Barringer spent a good part of his life proving otherwise. Thus his name became attached to this remarkable, one-of-a-kind attraction, well worth the time it takes to explore this well-preserved but touristy site.

We stayed at a nearby camper/trailer park, then next morning proceeded to Flagstaff and on to Lowell Observatory. Lowell sits prominently on a foothill overlooking the city with it's dozen or so buildings and observatories open to the public. Hourly guided tours, a movie theater and a great souvenier shop are worth your time.

We turned southeast and headed to the National Radio Astronomy Observatory, known as the Very Large Array. The site consists of 27, count 'em, 80-foot-diameter, 235 ton, radio telescopes configured in a gigantic "Y" formation. You can see them 25 miles away, and as you drive nearer they grow to breathtaking size. There is



The Richard B. Dunn Solar Telescope extends from 136 ft. above ground to 228 ft. below through a series of mirrors in a vacuum throughout.

only a self-guided tour available with a museum and souvenier shop, but it's worth doing.

Next we were off to the Alamogordo, NM, area where are found the Sun Spot Observatory and Apache Point Observatory, about 30 miles east in the beautiful Sacramento mountains.

Sun Spot has two large scopes engineered specifically for monitoring and recording solar activity. Unfortunately the day we were there it was cloudy and their 'cloud filter' was broken! (Just checking to see if you're paying attention.) Unfortunately, no such filter.

About three miles down the road is the Apache Point, home of the Sloan Digital Sky Survey which is currently mapping the northern galactic sky. This complex is almost totally operated from remote sites and we couldn't find anyone there.

Our final stop was the city of Roswell, NM. Roswell, of course, is the UFO Capitol of the world. It is quite interesting if you like that sort of thing, but don't expect Hard Evidence of Alien Visitors... They have everything you can imagine there about UFO's — that is, except *real evidence* of their existence.

All in all, the trip was an experience of a lifetime for me, and one I think most amateur astronomers would also love. 5



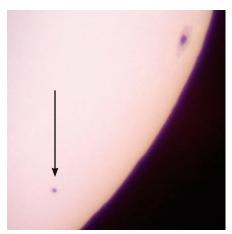
The author poses on the catwalk at Meteor Crater.

The River's Edge

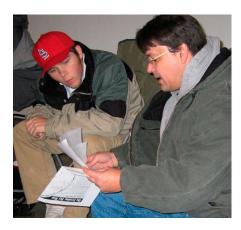
Across the universe

BY ERIC YOUNG

MERCURY TRANSIT The planet closest to the sun appeared to cross its fiery surface on November 8th. Several club members observed the event that afternoon at locations around the St. Louis metro area. Recalls Dennis Rippelmeyer, "I realized that if I waited until I got home from work the sun would be in it's "red" stage on the horizon so I asked my boss if it would be okay if a few of us spent our break in the parking lot looking at the transit. The planet against the sun along with the large sunspot offered a terrific view." In another location, Jamie Goggin was watching: "I set up the PST in front of the office. Another guy from work brought in a 5" Meade with a filter. We had about 20 people view the transit. Had to go back to work after about an hour outside. Mercury is very small, as planets go..." And Tom Foster reported from SIU-E: "We had our P.S.T. and the two Questars set up. From 2 p.m. until a bit before 5 p.m. we had about 50 people look at the transit. The nice thing about spending so much time observing was that Mercury's position really did change during the day." And at Washington University Medical Center, someone who observed through Eric Young's telescope commented that the tiny planet in relation to the sun was about the same size comparison as the head of a sperm to an egg. Astronomers don't get to hear that every day.



This view of the transit in progress was photographed through the telescope by Rich Halasey. Many observers thought Mercury seemed miniscule compared to the big sunspot looming above it.



Few RBAC members have found the time or energy to build their own telescopes. Enter Justin Galbraith, left, a sophomore at Greenville College, who's made a Dobsonian telescope for a class project. RBAC members such as Jamie Goggin, right, have shared some expertise and offered Justin encouragement along the way. The completed scope was unveiled at the December meeting.

BILL READIN' When he isn't peering through the eyepiece of his telescope, Bill Breeden can be found curled up with a good astronomy book (don't tell Rita). He says he has enjoyed *The Caldwell Objects*, by Stephen James O'Meara, so much that he's read it several times. Bill says that it's "a great continuation of O'Meara's popular book, *The Messier Objects*." And Bill also raves about the new *Sky & Telescope Pocket Sky Atlas*. "It's the size of a 'normal' book," says Bill, "spiral bound, and logically arranged. This will get lots of use under the stars and on cloudy nights for armchair astronomy!"

TO DUE LIST Don't forget to send in your annual membership dues, reminds our treasurer, Mike "Deal or No Deal" Veith.

WEATHER WATCHER All RBAC members know that it's really more productive to become a cloud expert than an amateur astronomer. Just ask Jeff Menz. Jeff's been a weather watcher and recorder for years, and he reports his data to the *Highland News-Leader*. Jeff even gets calls from insurance companies and anxious landlords asking about weather conditions on particular dates.

SHADOWS AND SILHOUETTES

This new Night Sky Network kit was demonstrated by Terry Menz at the October meeting. The package covers a variety of topics including the shadow of earth, moon phases, lunar and solar eclipses, transits, and the Kepler Mission and its search for habitable planets.

STARRY, STARRY NIGHT

Saturday, January 20, 5:00 – 7:30 p.m. at the Children's Museum in Edwardsville. Join us under the stars to explore the night sky at the 5th annual Starry, Starry Night. RBAC members will share their telescopes and their knowledge of astronomy. Visitors can enjoy hot chocolate, space related activites and crafts inside the museum. Appropriate for all ages. Pre-registration is not required, except for groups over 20. Visit www.childrens-museum.net

THAT'S A WRAP The RBAC holiday party was held on December 16th. "It was a fun night of astronomy, chili, cheese, Christmas music, and laughs," says Bill Breeden. "Thanks to Gary and Kathy Kronk for hosting a great party." And so the club looks ahead to a New Year of clear skies, bright comets, fiery meteors, and dancing planets. It's in the stars.



This homemade binocular viewer is the work of craftsman/astronomer Lee Paul. Total cost of the materials was about \$100. The mirror is "first surface," meaning that the top of the glass is silvered rather than the bottom as in a typical mirror. Now Lee can stargaze, shave and comb his hair at the same time.



River Bend Astronomy Club serves astronomy enthusiasts of the American Bottom region, the Mississippi River bluffs and beyond, fostering observation, education and a spirit of camaraderie.

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Affiliated with the Astronomical League, dedicated to fostering astronomical education, providing incentives for astronomical observation and research, and assisting communication among amateur astronomical societies. www.astroleague.org



Affiliated with the NASA Night Sky Network, a nationwide coalition of amateur astronomy clubs bringing the science, technology and inspiration of NASA's missions to the general public.

nightsky.jpl.nasa.gov

Current Astronomy CLUB NEWSLETTER

EDITOR

Eric Young younger@wustl.edu

2007 Meetings

Note: The January 20th meeting will be "Starry, Starry Night" at the Children's Museum.

January 20 May 19 September 15
February 17 June 16 October 13
March 17 July 14 November 10
April 21 August 18 December 8

Kronk Observatory

132 Jessica Drive, St. Jacob, IL 62281 Phone 618/644-2308

Looked up lately?

Join River Bend Astronomy Club

Want to learn more about astronomy? You won't need expensive tools or special skills — just a passion for observing the natural world.

- Meetings offer learning, peeks through great telescopes and fun under the stars.
- You will receive the club newsletter, Current Astronomy.
- · Get connected with our members-only web site.
- · Borrow from the club's multimedia library.
- And that's not all! Through club membership you also join the Astronomical League, with its special programs and a colorful quarterly newsletter to enrich your hobby.

We meet monthly, observe regularly and generally have a good time. Won't you join us?

Name(s) Address			
City			
Phone (Day)	(Even	(Evening)	
Email address (to receive club i	news and info	ormation	ነ):
Where did you hear of our club'	?		
How long have you been intere	sted in astror	nomy? _	
Do you have optical equipment	? Teleso	cope _	Binoculars
Are you afraid of the dark?	Yes No	o (just k	idding)
I am submitting my application	or:		
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@ \$20.00/year (18 years or older)			5.00/year er 18)
I enclose a check for a total of \$ made out to "Mike Veith, Treasu			-
Signature			
Date			



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DECEMBER 06