

July
2008



OBSERVER

Public Star Party

July 4, 2008 7:30PM

RMCC Observatory
Mounds OK

PRESIDENT'S MESSAGE

By Tamara Green

Our first star party for July will be on Friday, July 4. Yes, I know this is Independence Day Weekend, but those of you who do not wish to fight all the traffic, loud crowds, noise and drunks to see fireworks displays that you would have to park two miles away and hike to go see only to get about an hour, if that long, of entertainment are most welcome to come out to our observatory and see the magnificent and enduring "fireworks" in the night sky that Nature gives to us year-round!

And besides, you can look all over the horizon and see EVERY local display for miles around and enjoy them in peace and quiet under the stars!

Kids are welcome but must be supervised at all times. And please, no alcoholic beverages.

Since this is a summer star party, those of you who wish to bring a pot-luck dish or treat to share are most welcome to do so, as the Fourth wouldn't be the Fourth without a picnic, right?

In the event of cloudy skies or bad weather, the star party/picnic will be on Saturday, July 5.

Our members-only star party will be on Friday, July 25, with Saturday, July 26 as the back-up night.

We hope to see all of you all there!

Clear Skies,

Tamara

Astronomy Club Star Party – Friday July 4th

Alternate date will be Saturday July 5th if sky is cloudy on Friday.

Gates open at 7:30 PM Sunset is 8:44 PM Driving Directions below.

Due to the uncertain weather reports, check your local weather reports for sky conditions. Our club has an excellent resource for predictions of cloud cover on the observe section of our website.

<http://www.astrotulsa.com/Observe/observe.asp>

Since Night time temperatures can still dip to the mid 40's you should plan to bring a jacket.

Some insects have become active so bug repellent may also be needed.

Beginners Telescope Set Up on Center Pad

Several of our new members and guests have new telescopes they are trying to learn how to use. We would like to invite you to set up your equipment near the center concrete observing pad. Members lets all take time to meet these novice astronomers and help them get a good start with their equipment.

Wireless Internet now available at the Observatory. For laptop users - Rod Gallagher has made arrangements for wireless Internet to be broadcast on the observing field. Details for log on are available at the observatory. This is available for members to use for astronomy, observing and weather information and should not be abused for other types of browsing and gaming.

Things to Bring to a Star party. *Of course a telescope or binoculars are great for observing but you don't have to have one to enjoy the evening. You don't have to own a telescope to enjoy an observing night. Our members are eager to share their views with others. There will be plenty of people willing to share the view if you just ask. Also bring a red colored or covered flashlight to see your way around. We have plenty of folding chairs and a clean restroom.*



Children are welcome but **must be supervised** and must stay on observatory grounds. It's always wise to have an alternate activity such as a favorite book or tapes for younger children who may tire early. Closed toed shoes are preferred and a light jacket as needed.

A **donation of \$1.00 per guest** would be appreciated to help us maintain the observatory.

<http://www.astrosociety.org/education/podcast/index.html>

PARKING MAY BE AT A PREMIUM. Reserve Parking is available next door in old ATT lot for those without equipment or planning to leave early. **PLEASE DO NOT PARK VEHICLES near the center observing pad** blocking the view and traffic access.

SAFETY ISSUE: When large groups are present it is better to turn on your park lights or headlights on low beam rather than to try driving in or out without lights. Especially if those groups include children. Just warn everyone when you are getting ready to leave. NEVER try driving down the hill without lights.

Directions to Club Observing Nights at Mounds Observatory –
Plan to arrive before dark. We have plenty of chairs and a classroom area.

We have a microwave and you can bring your own snacks. You need to bring your own drinking water!

There is a restroom available but we don't recommend you drink the water. Bring your own telescope or just enjoy sharing the view with some of the members.

Map at <http://www.astrotulsa.com/Resources/Maps/rmccmap.asp>

To get there take Highway 75 South toward Okmulgee. **Watch out for GLENPOOL SPEED TRAPS**

Turn WEST (Right) on 241st St South (across from Duck Creek Indian Casino)

Continue on 241st about 6.5 miles (Its a dirt and gravel mixed road)

As you reach the west end of 241st it turns up a steep hill to the right

As you reach the top of the hill it turns into a paved road.

Continue on pavement about 1 mile and you will see the observatory on the top of the hill.

Children are welcome but must be supervised and must stay on observatory grounds.

Insect repellent is beneficial in the warmer months.

ALTERNATE DRIVING 251st route to Observatory. (See regular route and map below)

This route provides a wider well-paved road and avoids about 3 miles of dirt and gravel as well.

It's a little tricky to find so if you're new you may want to try the direct route listed below instead.

Go one mile south of 241st (Duck Creek Indian Casino)

Look for small green sign that says "Winchester"

You will TURN RIGHT (WEST) on 251st. It's not well marked and easy to miss.

You'll have 3 miles of wide well paved road to old 75 highway.

When you cross old 75 highway. Note your odometer reading.

Go exactly 3 miles more west. Look for N 140 Rd. Its just before a turn and small bridge.

Turn Right – Go 1 mile north on N 140 Rd

Turn Left and proceed west as usual another mile to the road up the hill to the observatory.



Astronomy on PBS OETA in July

Nova Science Now airs on PBS at 8:00 PM each Wednesday evening.

July 9 Hubble Repair

July 16 Northern Lights

July 23 SETI – Are we Alone?

July 30 Phoenix (Mars Mission)

An Additional program **Phoenix Mars Mission Ashes to ICE**

Weds July 9th at 10 PM more on at <http://phoenix.lpl.arizona.edu/>

Lands Tidbits – by *John Land* July 2008

Welcome Recent New Members: Landon Holcomb

Our membership rates for 2007 – 2008

Adults - \$ 35 per year includes Astronomical League Membership

Sr. Adult discount \$25 per year for those 65 or older includes Astronomical League Membership

Students \$ 15 without League membership.

Students \$ 20 **with League membership.**

The regular membership allows all members in the family to participate in club events but only ONE voting membership and one Astronomical League membership.

If an **additional member of the family** would like to join with voting rights the additional cost is \$15.

Additional League memberships within a family are \$ 5 each.

Magazine Subscriptions: If your magazines are coming up for renewal, try to **save the mailing label** or renewal form you get in the mail. Do NOT mail renewals back to the magazine!

To get the club discount you must go through the club group rate.

Astronomy is \$ 34 for 1 year or \$ 60 for 2 years. www.astronomy.com

Sky & Telescope is \$33 / yr www.skyandtelescope.com

Sky and Telescope also offers a 10% discount on their products.

Note: You may **renew** your **Sky & Telescope subscription** directly with out having to mail in the subscriptions to the club. **NEW SUBSCRIPTIONS** must still be sent to the club treasurer. Forms are available on the website.

We now have an automated on line registration form on the website for new AND renewal memberships plus magazine subscriptions. You simply type in your information and hit send to submit the information.

<http://www.astrotulsa.com/Club/join.asp>

You can then **print a copy of the form and mail in your check.**

Astronomy Club of Tulsa - 25209 E 62nd St – Broken Arrow, OK 74014

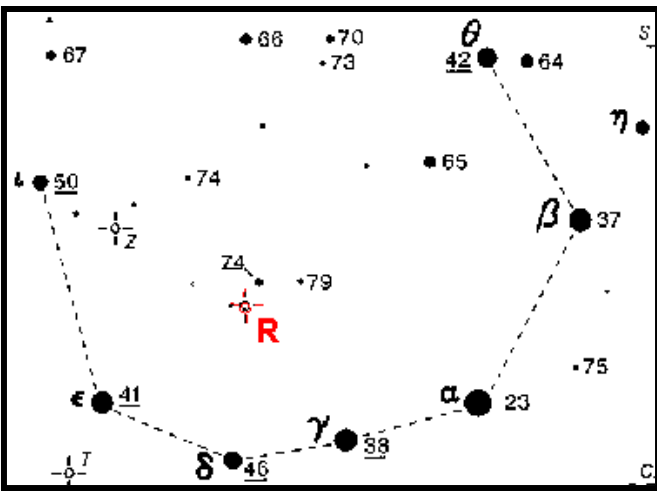
Address Corrections- Email changes – Questions:

You may forward questions to the club by going to our club website and Fill out an online form or just click on John Land and send an email. Please leave a clear subject line and message with your name, phone number, your question – along with email

R Cor Bor, Where Are You?

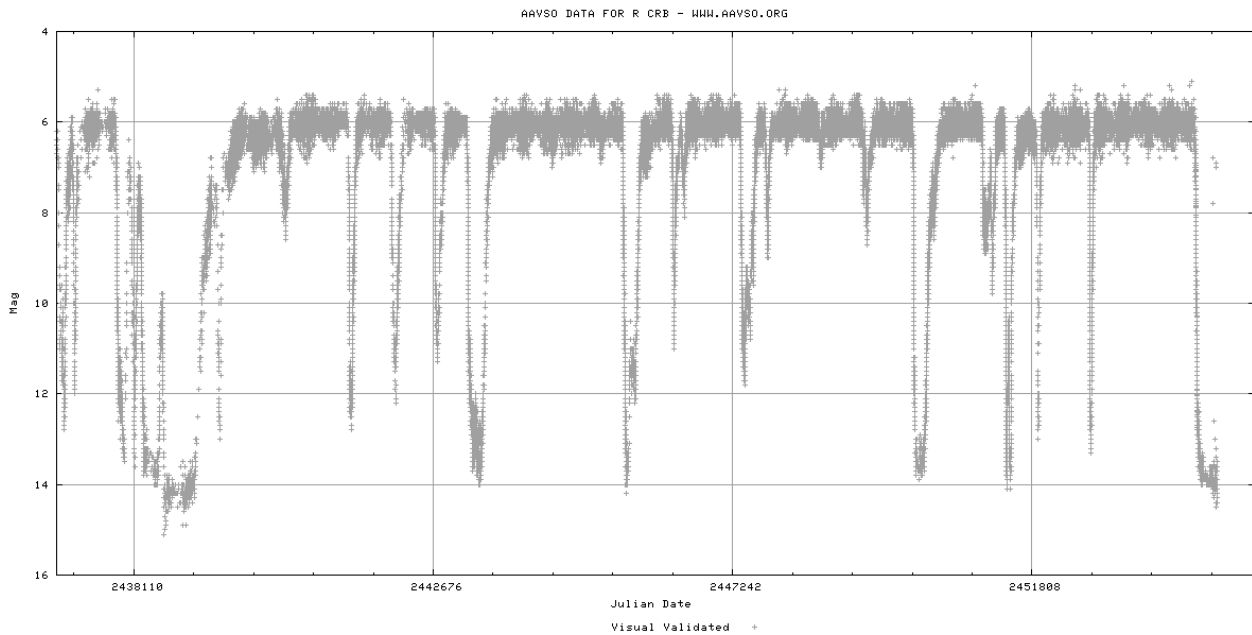
D. J. Karcher

One of my favorite variable stars has been missing for over a year now. Well... to be more specific, it has been too faint to be seen in my 7x40 binoculars, which I usually use to check this particular target.



R Coronae Borealis (also known as "R Cor Bor" to those whom observe it regularly) is an unusual variable star, sometimes termed an "inverse nova", which occasionally fades from view instead of brightening. It has been a favorite with observers ever since its discovery nearly 200 years ago by the English amateur, Edward Pigott. R CrB will normally shine at the limit of naked-eye visibility (a little brighter than 6th magnitude) and then suddenly drop in brightness at random intervals and for periods of time that can be as short as a few weeks or as long as several years. The star's dimming, sometimes only a few magnitudes but often by as much as 8 – 9 magnitudes (a factor of almost 4,000x) is much too irregular to be caused by an eclipse from an orbiting companion (like Algol) – so what's going on here?

Apparently we're seeing the star disappear behind clouds of dust. The spectrum of R CrB reveals a hydrogen-deficient / helium-rich star that has a carbon-to-oxygen ratio of 2:1 expelling carbon-rich gas in the stellar wind. The wind condenses when it gets far enough from the star to cool (a literal smoking chimney). The star seems to be a post Mira phase star (low mass [0.8 solar] but bright helium-carbon-rich class G giant) that has lost most of its hydrogen-rich atmosphere and has cycled by-products of fusion (carbon and other elements) to the surface (which it blows off in the stellar wind). The star will eventually run out of helium and begin the long slide to white-dwarfhood as it is much too low mass to sustain higher level fusion.



R CrB Light Curve (Jan, 1960 – Jun, 2008) – AAVSO

R Cor Bor began its most recent vanishing show early last summer (2007) and may be showing signs of now reappearing. Or, it could just be a minor fluctuation as happened back in the early 1960's when R CrB stayed hidden in it's dusty envelope for almost four years. That's what makes this star so interesting and fun to observe – it is truly irregular. Just when you think you understand the cycle – something surprising and completely unpredictable happens.

CLUB OFFICERS

POSITION	NAME	PHONE
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Vice-President	Tom McDonough	918-665-1853
Treasurer	John Land	918-357-1759
Secretary	Teresa Kincannon	918-637-1477

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Richie Shroff	918-835-3565
Bill Steen	918-251-3062
Tony White	918-258-1221

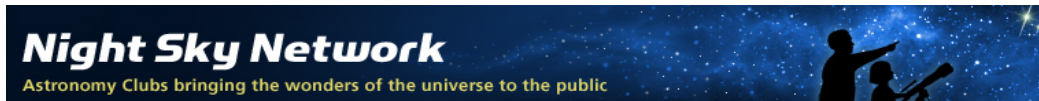
APPOINTED STAFF

POSITION	NAME	PHONE
RMCC Facility Manager	Craig Davis	918-252-1781
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Observing Chairman	David Stine	918-834-1310
New Members	Tom McDonough	918-665-1853
Observatory Director	Teresa Kincannon	918-637-1477
Webmaster	Richard Alford	918-855-9986
Newsletter Editor	Tom McDonough	918-665-1853
Night Sky Network	Teresa Kincannon	918-637-1477

MEMBERSHIP INFORMATION

Astronomy Club of Tulsa membership (\$35/year) includes membership in the Astronomical League and subscription to ACT's "Observer" and AL's "Reflector". "Astronomy" (\$34/year) and "Sky and Telescope" (\$33/year) are also available through the club. For more information contact John Land at 918-357-1759. Permission is hereby granted to reprint from this publication provided credit is given to the original author and the Astronomy Club of Tulsa Observer is identified as the source.

The Astronomy Club of Tulsa is a member of the Astronomical League and the Night Sky Network



<http://www.astroleague.org>

<http://nightsky.jpl.nasa.gov>

ACT welcomes your questions, suggestions, comments, and submissions for publication.

Please send all inquiries to Newsletter@astrotulsa.com