

Astronomy Club of Tulsa
Observer



August 2009

Picture of the Month



M-16 / The Eagle Nebula... Photographer: ACT's Rod Gallagher

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Important ACT Upcoming Dates:

No August General Membership Meeting

Board Meeting...	Sun, Aug 9, 2009 (p3)
Public Star Party...	Fri, Aug 14, 2009 (p11)
Member Star Party...	Fri, Aug 21, 2009
Sidewalk Astronomy...	Fri & Sat, Aug 28-29, 2009

August 2009
Tulsa, Oklahoma

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1 Sunrise: 6:30am Sunset: 8:29pm Moonrise: 5:46pm Moonset: 2:23am
2 Sunrise: 6:31am Sunset: 8:29pm Moonrise: 6:32pm Moonset: 3:16am	3 Sunrise: 6:32am Sunset: 8:27pm Moonrise: 7:11pm Moonset: 4:12am	4 Sunrise: 6:33am Sunset: 8:26pm Moonrise: 7:46pm Moonset: 5:10am	5 Sunrise: 6:34am Sunset: 8:25pm Moonrise: 8:16pm Moonset: 6:09am Full Moon: 6:55pm	6 Sunrise: 6:34am Sunset: 8:24pm Moonrise: 8:43pm Moonset: 7:07am	7 Sunrise: 6:35am Sunset: 8:23pm Moonrise: 9:06pm Moonset: 8:05am	8 Sunrise: 6:36am Sunset: 8:22pm Moonrise: 9:33pm Moonset: 9:03am
9 Sunrise: 6:37am Sunset: 8:21pm Moonrise: 9:58pm Moonset: 10:02am	10 Sunrise: 6:38am Sunset: 8:20pm Moonrise: 10:25pm Moonset: 11:02am	11 Sunrise: 6:38am Sunset: 8:19pm Moonrise: 10:55pm Moonset: 12:04pm	12 Sunrise: 6:39am Sunset: 8:18pm Moonrise: 11:30pm Moonset: 1:09pm	13 Sunrise: 6:40am Sunset: 8:17pm Moonrise: none Moonset: 2:16pm Last Qtr: 12:56pm	14 RMCC PUBLIC Sunrise: 6:41am Sunset: 8:16pm Moonrise: 12:12am Moonset: 3:23pm	15 Sunrise: 6:42am Sunset: 8:15pm Moonrise: 1:03am Moonset: 4:28pm
16 Sunrise: 6:42am Sunset: 8:13pm Moonrise: 2:05am Moonset: 5:27pm	17 Sunrise: 6:43am Sunset: 8:12pm Moonrise: 3:15am Moonset: 6:19pm	18 Sunrise: 6:44am Sunset: 8:11pm Moonrise: 4:29am Moonset: 7:02pm	19 Sunrise: 6:45am Sunset: 8:10pm Moonrise: 5:46am Moonset: 7:40pm	20 Sunrise: 6:46am Sunset: 8:09pm Moonrise: 7:00am Moonset: 8:13pm New Moon: 4:02am	21 MEMBERS Sunrise: 6:46am Sunset: 8:07pm Moonrise: 8:13am Moonset: 8:44pm	22 Sunrise: 6:47am Sunset: 8:06pm Moonrise: 9:23am Moonset: 9:13pm
23 Sunrise: 6:48am Sunset: 8:05pm Moonrise: 10:31am Moonset: 9:44pm	24 Sunrise: 6:49am Sunset: 8:03pm Moonrise: 11:39am Moonset: 10:17pm	25 Sunrise: 6:50am Sunset: 8:02pm Moonrise: 12:44pm Moonset: 10:53pm	26 Sunrise: 6:50am Sunset: 8:01pm Moonrise: 1:48pm Moonset: 11:33pm	27 Sunrise: 6:51am Sunset: 7:59pm Moonrise: 2:47pm Moonset: none First Qtr: 5:42am	28 SIDEWALK BASS PRO & RIVERWALK 8-10 PM Sunrise: 6:52am Sunset: 7:59pm Moonrise: 3:41pm Moonset: 12:19am	29 SIDEWALK BASS PRO & RIVERWALK 8-10 PM Sunrise: 6:53am Sunset: 7:56pm Moonrise: 4:29pm Moonset: 1:10am
30 Sunrise: 6:53am Sunset: 7:55pm Moonrise: 5:11pm Moonset: 2:05am	31 Sunrise: 6:54am Sunset: 7:54pm Moonrise: 5:47pm Moonset: 3:02am					

Lands Tidbits – by John Land

Regional Astronomy Observing events: MOST REQUIRE EARLY REGISTRATION or offer DISCOUNTS for early registration.

Sept 12–20 Okie-Tex Star Party (<http://www.okie-tex.com/>) This annual gathering in the tip of the Oklahoma panhandle is attended by 300 plus astronomers including dozens from our club.

October 15–18 Heart of American Star Party in Butler Missouri (<http://www.hoasp.com/>) There is a excellent article on this event and its origins in the June AL Reflector.

Welcome Recent New Members: **PAUL MULLEN, JERRY YOUNG, DONITA GRAY, MICHAEL BLAYLOCK, DR. AARON J. COYNER, ARDEN STRYCKER, BILL MAURMAN, SOLOMON MITCHEK, MARGIE PUGH, KEVIN GILLILAND, NELSON HERNANDEZ**

Our membership rates for 2009 – 2010 will be as follows:

- 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 Astronomical League membership)
- Students - \$20 (with Astronomical 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, and/or additional Astronomical 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 / year. 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 to:

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 (<http://www.astrotulsa.com/>) 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.

A Note From the ACT Secretary:

This month our Board of Directors did not sit down to an official board meeting, however, many of us have been very busy with club business.

Rick Walker and Chris Proctor have been making plans to get our observatory free of leaks. Rick met with a local professional company at the observatory just this past week to get some estimates. This company has agreed to help us free of charge with some 'routine maintenance' on the roof over the classroom. Watch for details about this as we will be sure and publish a thank you to all involved once this has been completed.

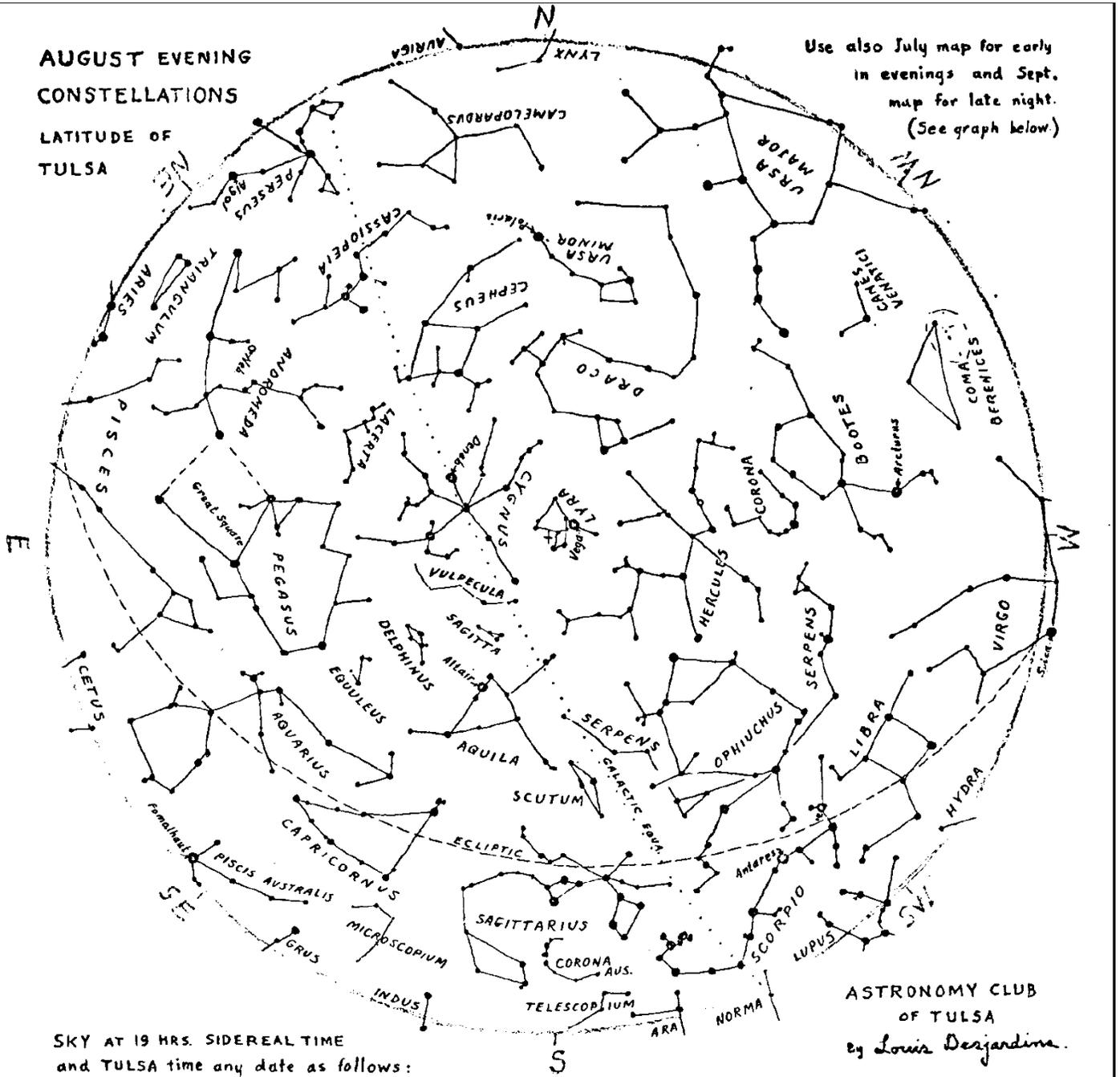
Peggy Walker continues to keep us on task with the IYA events at Bass Pro and the Riverwalks Park. Thank you Peggy and all those volunteers with telescopes that come out to help. She has more plans coming up for us this fall: We are going to Wool-A-rock near Bartlesville to share the stars. We need volunteers with solar scopes and also some without scopes. Anyone interested in working with students of all ages in small groups to share a small learning activity on this one day event, should contact Peggy. Those of us that have met for planning feel this is going to be a lot of fun. Let's all get involved and share what we can.

Zach Garrett of Garrett optics has donated some awesome binoculars for all to enjoy. We should have them mounted and ready at our next star party.

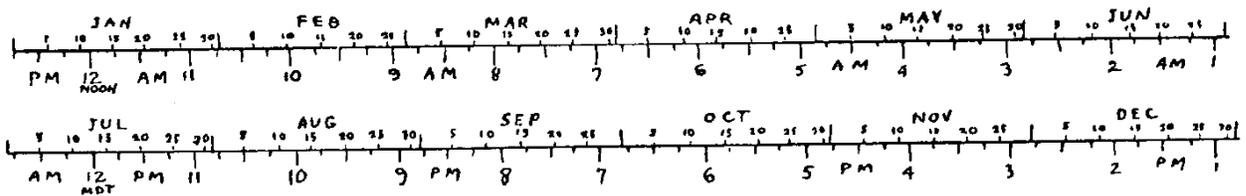
About a dozen of us set up telescopes at the River Fest Park for an observing session just after the Star Light Band concert on July 14th. Some of you may remember that we did this last summer. Now the Starlight band wants to make this an annual event. There is always a good crowd of about 200 people and they all really enjoyed taking a peek at the moon and Saturn just as the music ended. Watching a young student look and look again, asking question after question while his parents chased his brother around was most amusing. Before they left, the dad admitted he has a telescope in his attic and now that he sees the interest of his oldest son (age7) he will have to dig it out and dust it off. Every time you take a telescope to an event, there is always many people so thankful to view something they may never have observed in their life time if we didn't make it possible. Thank you to all who came out to contribute.

A few of us had the privilege of working with a special group of honor students. The Sam Noble Museum of Natural History sponsors an elite group of 12 and 13 year olds for an awesome summer camp. These students send in an essay and application, some are selected for an interview, and then finally no more than 15 are chosen to participate in the annual camp that goes on the road. From OU they go to RSU in Claremore for part of the camp. Each year the organizing teacher contacts me to contribute the astronomy portion at the campus in Claremore. So with the help of Bob Boston who works at the RSU campus, and Tim Davis who assists with telescope equipment also, I am honored to go and present some special aspect of astronomy to these eager and highly motivated students. This year I chose the topic: How does a telescope work?. I phoned Peggy Walker to ask about using one of the Night Sky Network kits for this. Peggy met with me to loan one of the kits and some extras. The students were able to really see how the lenses work in a telescope, as the kit was equipped with small optics for both a refractor and a reflector. The students worked to line up the lenses held by clips on a few meter sticks. Small groups worked from one station to another including one of Bob Boston's telescopes on display so they could see the mirrors in the working telescope.

Next time I'll have information from our board meeting. We have plans to meet on Sunday, Aug. 9, 1pm possibly at the Oakbrook Village Club house if available. Phone one of us if you would like to attend.



SKY AT 19 HRS. SIDEREAL TIME
and TULSA time any date as follows:

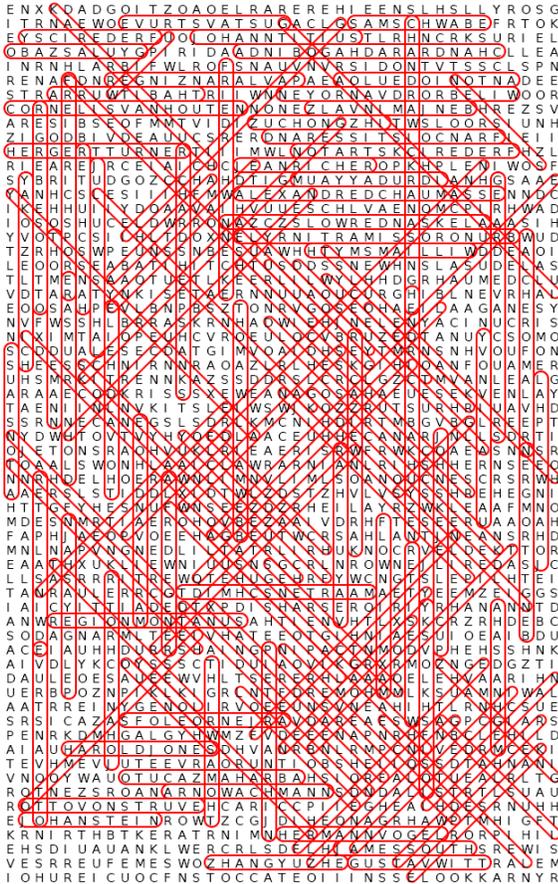


Full Moon.....August 5th
 Last Quarter.....August 13th
 New Moon.....August 20th
 First Quarter.....August 27th

August 12th - Perseid meteor shower peaks
 August 14th - Jupiter at opposition
 August 17th - Neptune at opposition
 Evening - Mercury, Jupiter & Saturn / Morning - Venus & Mars

(Answers for July, 2009 Word Search Puzzle)

Male International Astronomers R-Z Astronomy Club of Tulsa



I entered all the drawing tickets into Excel and then sort to my heart's content. The little statements on the bottom of the tickets, tell me where people are the most interested in what we do. They checked - Year of Astronomy Activities, Sidewalk Astronomy, Club Meetings, Public Star Parties, Astronomy Classes and Becoming a Member. Plus, asking for their ages, will show what cross section of the population we have reached so far.

Are you ready?

I currently have entered 469 tickets full well knowing that many folks would not fill one out after looking in a scope, and some were genuinely not interested at all. People interested in our I.Y.A. activities, 172, Sidewalk Astronomy 177, Club Meetings 75, Public Star Parties, 162, Astronomy Classes, 110, and interested in A.C.T. Membership 78.

Just think what would happen if we contacted them, and kept them informed on our events – could we handle 50 to 100 more people at our meetings? So as Dennis recuperates, in his spare time, he will contact those interested in membership so don't be surprised if we see some new faces in September!

Plus we have an idea that 110 people would like to take an astronomy class offered by us. There is another opportunity to education the public about this wonderful hobby of ours and the universe we share. That could be plans for next year's calendar of events.

The age break down was as follows:

- Ages 2 to 9 was 38
- Ages 10 – 14 was 82
- Ages 15 – 20 was 60
- Ages 21 – 30 was 69
- Ages 31 – 40 was 63
- Ages 41 – 50 was 83
- Ages 51 – 60 was 35
- Ages 61 and over was 16.

Clearly, to continue the legacy of this quarter-of a century Tulsa Tradition, we need to make ourselves available to the youth and these 180 families. We have college and career people totaling 69, and the adults were 197 people. If A.C.T. does not follow up in some meaningful fashion, we might as well pick up our toys and go home permanently.

We can't leave them hanging... anyone ready and willing to help take the next step??

From your RMCC Facilities Manager

Greetings!

Thanks to all those who turned out for last months workday, we've got the dome floor repainted, stores inventoried and some serious weed-eating done by Tim and Bill both on the field and along the driveway. I really appreciate everyone's help.

For those who have not noticed yet- the RCX is back up, the cover finished and should be operational by 8/8. The platform allowing access to the shutters on the dome has been repainted with a no-slip paint and the rope on the lower shutter has been replaced. The cables for the top shutter however have not been replaced so please take care when opening and closing them. The hope is to have those cables replaced reasonably soon.

Predicted MAXIMA of long period variables - August 2009 North of -55° Declination ~ Tulsa, OK Viewing Limit (Predicted Maxima > 8.0 - Easy Binocular Range)

Designation	Name	Code	Range	Est Max Date
0018+38	R And		<6.9-14.3>	Aug 18
*0349-46	U Hor	@	7.5-(14.0	Aug 06?
0811+12	R Cnc		<6.8-11.2>	Aug 28
1233+07	R Vir		<6.9-11.5>	Aug 06
1536-54	T Nor	@	<7.4-13.2>	Aug 05
1901+08	R Aql		<6.1-11.5>	Aug 23
2044-05	T Aqr		<7.7-13.1>	Aug 19
*2137+53	RU Cyg		<8.0-9.4>	Aug 11?

Codes:
 # - needs more observations
 & - needs more observations urgently
 @ - needs more observations very urgently
 % - has good CCDV or multicolor photometry, but more visual observations are needed (usually more visual observations are needed very urgently)

Source: AAVSO Bulletin 71

IYoA - MID-YEAR REVIEW – Peg Walker

As with all endeavors, no matter how large or small, there is a time when taking stalk of your efforts is called for. Just to let you awesome, die-hard astronomers know, your outreach efforts have peaked interests of many families and students.

I have also procured a pair of “crowd control” poles that I’ll eventually be hanging either rope or chain from to deter access to the platform in the dome itself, and to the stairwell to the dome. The idea is to prompt guests to have a member with them when going up stairs.



I will be doing some repair and painting to the stairway in the next few weeks. The top and bottom step on each flight of stairs as well as every third or so step will be repainted with the same no-skid paint that I used upstairs.

No work-day is planned for August or September but in October we need to be thinking about a large turn out as we have some tree trimming to do on the north side of the field between the fence and the drive. More to come on this as the date (10/03) nears. If you have yet to come out for a work day this year, please consider coming up to help with this one.

While I was at the Comanche Ranch observatory last week, I took plenty of notes on how they have done things in order to improve our own facility. With luck I will be able to incorporate improvements to the grounds addressing safety and convenience issues over the next 12-18 months.

Chris Proctor

WOOLAROC

“SUN” DAY ON SATURDAY IS FAST APPROACHING

Saturday, September 26th, the Astronomy Club of Tulsa will be hosted by Jan Tucker the event planner at Woolaroc in Bartlesville. During the morning/day, we will conduct solar observing to the general public and shift into night observing for a different group in the evening. So from 10:00 am to 5:00 p.m solar observing, dinner break, then 7:00 p.m. (to what ever time we decide), night viewing starts for a special group called, “Friends of Woolaroc”.

The plans are to arrive from 8:30 – 9:00a.m. and set up. The scopes will be partnered throughout the park with the astronomy kits/exhibits in a Cosmic Scavenger Hunt. The visitors will get the schedule as they enter the gates, and work their way through the park and get a mini-lesson as they work their way back to the main entrance.

What I need is a count of solar scopes, astronomers, and presenters and who you would like to partner with. All four exhibits will be presented on the half-hour: 10:30 a.m., 11:30

a.m., 12:30 a.m., and 1:30 p.m. The concept and locations I have selected are Star Wobble Exhibit at the Mountain Man Camp, Order the Solar System Exhibit at the Museum, Matter Down The Hole Exhibit at the Petting Barn, Inside a Telescope Exhibit at the Events Center. The subjects/topics are possibly up for revamping as we get closer so please be open for a change if need be.

Then the guests will end their day with a Black Hole presentation at 3:30 p.m. in the multi-function building at the front of the park. This is to help get the crowd ready to leave at 5:00 since the park closes at that time and Jan needs to prepare for her evening guests.

After 5:00 p.m. we are welcomed to cook and enjoy each other’s company until 6:30 or so before we start the evening agenda at 7:00. Jan thought it would be nice to have her Friends of Woolaroc have their own special viewing of the black hole presentation before they start observing. So I will be talking to them for about an hour which will give the club time to move the telescopes to the parking lot near the front of the park.

We need to know who would be coming for the evening event so we can be at the gate to let you in. So please tell me your plans so we can plan accordingly. Some members were talking of cooking food but we would have to bring a B.B.Q. since they don’t have one available. There may not be enough time to cook, eat, clean up and set up for part two. We may want to consider having local food delivered, or picnic items, to cut down on stress and actually give us some down time before we gear up again. Please, give me some input so we can make the proper arrangements.

One thing to note is that Jan is going to be handing out flyers now for the September event and contact the Bartlesville paper and her contact may get it in the Tulsa World. So this could be big! Even if you don’t have equipment, we could use your help because we don’t know what to expect and there will be plenty for everyone to do.

Thank you for your overwhelming commitment to the events we have planned. Believe it or not, it is starting to pay off, as you will see in the IYA up date or status article in this newsletter.

You can contact me at peg@astrotulsa.com



Jupiter Transit 7/18/2009 – Steve Chapman

**NO food or drinks
allowed in the
Planetarium**



Planetarium Shows

August 1st - 31st 2009
Presentation Schedule Changes Monthly



Doors open 10 minutes prior to show time for general seating.
All shows begin on the hour. Admission applies to one show.

Monday PLANETARIUM CLOSED

Tuesday through Friday

11:00 AM	Extreme Planets
12:00 Noon	Secret of the Cardboard Rocket
1:00 PM	BIG
2:00 PM	Extreme Planets
3:00 PM	Night Skies over Green Country
4:00 PM	Secret of the Cardboard Rocket

Saturday

10:00 AM	BIG
11:00 AM	Extreme Planets
12:00 Noon	Secret of the Cardboard Rocket
1:00 PM	BIG
2:00 PM	Extreme Planets
3:00 PM	Night Skies over Green Country
4:00 PM	Secret of the Cardboard Rocket

Sunday

1:00 PM	BIG
2:00 PM	Extreme Planets
3:00 PM	Night Skies over Green Country
4:00 PM	Secret of the Cardboard Rocket

BIG: The Universe is Big, but how Big is Big? Journey to the farthest observable reaches of the universe to find out! Computer animation, claymation, laser graphics and a surround sound musical score bring a really BIG subject down to Earth.

Secret of the Cardboard Rocket: Join two children, Bonnie and Marcus, on a magical journey through the Solar System, aided by a talking astronomy book, a cardboard rocket, and a vivid imagination. Take an up close look at all of our planets and learn the secret that makes this entire journey possible. Great for young children and their families. *Funded by Sam Viersen Family Foundation and The Oxley Foundation. Community Sponsor -- Tulsa City-County Library.*

Extreme Planets: For ages, humanity has wondered whether we are alone in the Universe. Fifteen years ago we were unaware of planets outside our solar system, but today these "extrasolar" planets appear to be quite common. As the search continues, the possibility exists that one day we might find life elsewhere in the Universe, born in the light of another sun. Join us in the adventure as we explore Extreme Planets.

Night Skies over Green Country: Live Planetarium presentation takes the audience on a journey of the current local night sky. Visual demonstrations will include what constellations and planets are visible that night and include upcoming celestial events like comets, meteor showers, and eclipses. Program changes as the night sky changes.

Notice: Shows are subject to change. Seating is for 110. Admission and seating is on the basis of first-come, first-served. Seating may not be available for all showings. Visitors must be seated before presentation begins. No entry after doors are closed, late arrivals attend next presentation. No food or drinks allowed in Planetarium. Please contact the Planetarium to confirm shows and information at (918) 834-9900 x400.

Observing Pages

Information Exchange

The Astronomy Club of Tulsa has started a new Yahoo Group for the club. For those of you who are unfamiliar with Yahoo groups, it is a forum that allows for messages, photos and files that can be shared among the group's members. As stated in the group's description, "This group is for the members of the Astronomy Club of Tulsa to ask questions, share ideas, get information, plan observing sessions, or just communicate in general. Informal club business communications may also be announced here." This group can be found on the web at <http://tech.groups.yahoo.com/group/AstroTulsa/>. It is open to all club members so be sure to check it out! Tony White, our new Club President is the group's moderator.

August Observing List

	Double Star	Deep Sky Binocular	Caldwell	Messier	Herschel-1
1	Omicron Ophiuchi	NGC6520 *	C06 (NGC6543) *	M16	NGC6440
2	Rho Herculis	NGC6633 *	C78 (NGC6541)	M17	NGC6445
3	Nu Draconis	IC4665		M18	NGC6451
4	Psi Draconis	IC4756		M22	NGC6514
5	40/41 Draconis			M24	NGC6517
6	95 Herculis			M25	NGC6520 *
7	70 Ophiuchi			M26	NGC6522
8	Epsilon Lyrae			M28	NGC6528
9	Zeta Lyrae			M69	NGC6540
10				M70	NGC6543 *
11					NGC6544
12					NGC6553
13					NGC6568
14					NGC6569
15					NGC6583
16					NGC6624
17					NGC6629
18					NGC6633 *
19					NGC6638
20					NGC6642
21					NGC6645
22					NGC6664

Details of this list are located in the folder, "ACT Observing Lists" in the AstroTulsa Yahoo group's files section. This list contains too many objects to "observe" in one evening, but we will recognize anyone who observes 20 or more of these objects. The reason there are many objects is to give the observer a variety of objects that can also be used for completion of a Astronomical League (AL) Observing Club. For more information on the Astronomical League and the observing clubs, check it out at <http://www.astroleague.org/observing.html>. All of the objects cross the meridian between 10 PM and midnight. For this month, the list contains 9 double stars (AL Double Star Club), 2 Caldwell objects (AL Caldwell Club), 10 Messier objects (AL Binocular Messier & AL Messier Clubs), 4 deep sky objects (AL Deep Sky Binocular Club) and 22 Herschel objects (AL Herschel-1 Club). One of the Herschel objects is also on the Messier list, so observing this object will count toward both observing clubs.

After 13 months of Observing Lists, we now have included all of the objects from 5 of the AL observing clubs. Next month I will start a new observing program. Please let me know what you think!

Please take a look and give feedback to either Ann Bruun or Rod Gallagher. Also, please provide a copy of your observing logs to Ann Bruun.

Thanks – Rod Gallagher

Nebraska Star Party: The Bad the Good and the Glorious

By Ann Bruun – ACT Observing Chairperson

July 19th – 22nd Bob and Marcia Boston and Lina and I attended the Nebraska Star Party at Merritt's Reservoir in north central Nebraska.

Let's get the BAD out of the way first:

"It's far!" "How far?" "Uber far!" If you have driven to Okie Tex think – (OkieTex x 2 = NSP). It is a 12 or 13-hour drive.

Sand hills – really dunes with a little grass and several cacti growing on them. Spiral tent stakes are recommended because of course the wind/storms will blow. Spiral stakes are just dog ties. When I picked up the six we had ordered at the hardware store the young man asked, "How many dogs do you have?"

The star party is held at a very slightly used state park so cars will occasionally drive in and out with their lights on. And speaking of it being slightly used, there is one vault toilet for the observing field, yes one. This may be a bigger issue for us women – yuck!

The final "bad" is more of an FYI. Many people get a motel room in the closest town, Valentine, which is listed on the NSP site as 27 miles away. You would think this means a 25 minute drive but because of the winding road it will take a good 45 minutes to get to town. This is not terrible but it is nice to know.

Now for the GOOD:



All the NSP organizers are very friendly and helpful. The registration packet was wonderful. It not only had the program for the star party it also had a copy of Astronomy magazine and several of their informational guides, plus a poster and CD from NASA about the Sun and a list of ISS passes.

You can sign up for evening meals and I can tell you the food is delicious. A free dinner was provided for all star party participants on Tuesday.

They also have "Field School". These sessions cover the basics of Astronomy to help people new to the hobby. There are special programs offered for children as part of an effort to get the whole family involved.

Astrophotographers can enter a contest and observing challenge lists can be completed for a certificate. There were also speakers and vendors and a swap meet; in other words, everything you would expect of a good star party.

On to the GLORIOUS:

We had three nights at the star party. Sunday was party cloudy becoming very cloudy around midnight. Shooting through a hole into Cygnus I was delighted by the number of stars I could see. The immediate comparison, which came to mind, was Okie Tex skies. But Sunday was just a tease. Monday we were treated to the obligatory storms during the day. By evening the sky was partly cloudy with lightning to the southwest. This is when I started to panic. We were only staying three nights and the forecast didn't look good for Tuesday either. "You mean I drove 700 miles for #@!/? I'm quitting astronomy, this is too much stress! You get the picture – it wasn't pretty.

Then Tuesday night came, the sun went down, the clouds went away and all made sense again. This was why we came. Stars horizon to horizon, perfect weather, in other words, heaven. Shortly after it got dark the Aurora Borealis started in

the northwest. It hung low then it would streak up into the sky like someone had turned on powerful spotlights pointing straight up just over the horizon. It went on like that for hours, subsiding then flaring up again. Each time you could hear cries of excitement around the field. I observed until I became too exhausted to find any more objects. When I turned in at 4am the sky was still going strong.

If you are up for the trip I would definitely recommend the Nebraska Star Party. Yes the environment is harsh but that is always the case where the dark skies are. The skies make it worth the trouble and the NSP organizers make it worth your time to attend.



To see more of Howard's photos visit his web site. <http://www.howardedin.com/>



Garrett Optical® stocks over 50 astronomy binoculars from six different manufacturers, and we're based right here in south Tulsa.

Visit our websites
www.GarrettOptical.com
www.AstronomyBinoculars.com
for more information!

ASTRONOMY CLUB STAR PUBLIC PARTY

FRIDAY AUGUST 14TH - ALTERNATE DATE WILL BE SATURDAY AUGUST 15TH IF SKY IS CLOUDY ON FRIDAY.

GATES OPEN AT ~7:30 PM SUNSET -8:15 P.M. / END CIVIL TWILIGHT - 8:42 P.M.

PHASE OF THE MOON ON 14 AUGUST: WANING CRESCENT WITH 40% OF THE MOON'S VISIBLE DISK ILLUMINATED.

LAST QUARTER MOON ON 13 AUGUST 2009 AT 1:56 P.M. CENTRAL DAYLIGHT TIME.

Due to the uncertain weather reports, always 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>). Also check the Astro-Tulsa Yahoo Group Page: (<http://tech.groups.yahoo.com/group/AstroTulsa/>) for cancellations if weather is uncertain!

- **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 let's 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 always 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.
- We would like to encourage our new members and guests to join us
- 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!

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.

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



CLUB OFFICERS

POSITION	NAME	PHONE
President	Tony White	918-258-1221
Vice-President	Tom McDonough	918-665-1853
Co-Treasurers	John Land Jim Miller	918-357-1759 918-627-4551
Secretary	Teresa Kincannon	918-637-1477

BOARD MEMBERS AT LARGE

NAME	PHONE
Ann Bruun	918-834-0757
Steve Chapman	918-342-1643
Rod Gallagher	918-369-3827
Bill Steen	918-251-3062
Chris Proctor	918-810-6210
Rick Walker	918-451-9235
Dennis Karcher	918-619-7097

APPOINTED STAFF

POSITION	NAME	PHONE
RMCC Facility Manager	Chris Proctor	918-810-6210
Membership Chairman	John Land	918-357-1759
Observing Chairman	Ann Bruun	918-834-0757
New Members (co-Chairmen)	Owen Green Rick Walker	918-851-1213 918-451-9235
Observatory Director	Teresa Kincannon	918-637-1477
Webmaster	Tom McDonough	918-665-1853
Newsletter Editor	Dennis Karcher	918-619-7097
Night Sky Network	Peggy Walker	918-640-0832

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 proud 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



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eMail article submissions to: djkarcher@cox.net