



The Astronomy Club of Tulsa Observer



MAY 2010 EDITION



*Milky Way coming out of Sagittarius - David Inman.
Gila, NM -2 minute exposure at 1600 ISO using
Canon T1i DSLR.*

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May Meeting Date

TASM Planetarium - 28th

The **Tulsa Air and Space Museum** will be presenting a special show for our members during this very special meeting. Due to budget cuts, they are also looking for volunteers to operate the planetarium and will discuss this with the membership.

Meeting Date	Scheduled Speaker
Friday, May 28, 2010	TASM
Friday, June 04, 2010	* <i>Summer Series</i> - Speaker TBD
Friday, July 02, 2010	* <i>Summer Series</i> - John Land
Friday, August 13, 2010	* <i>Summer Series</i> - Speaker TBD
Friday, September 24, 2010	Dr. Peter Shull – OSU
Friday, October 22, 2010	Tom McDonough – Club Elections
Friday, November 19, 2010	2011 Club President – Dinner Meeting
Friday, December 17, 2010	Dr. Aaron Coyner – Goddard Space Center

EARLY MORNING OBSERVING *by John Land*

For those willing to observe in the dark hours before dawn, 3:30 to 5:00 AM, Comet McNaught C 2009 R 1 is making a nice appearance. Latest reports say it is a nice binocular object around 7.5 magnitude.

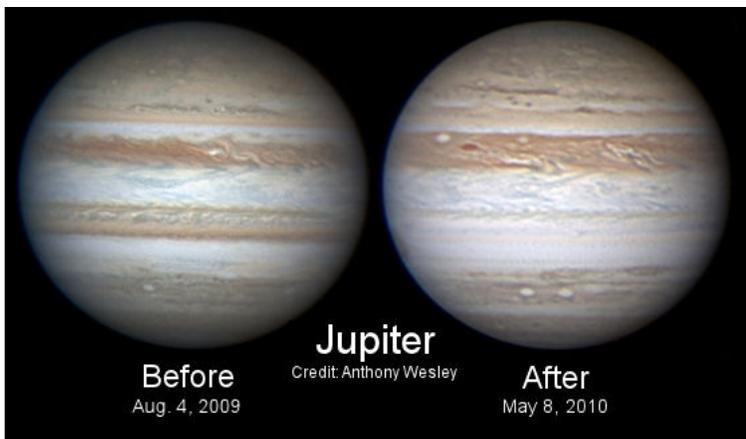
Predictions suggest it may reach a brightness as great as 5th magnitude in June.

More details can be found at
<http://www.skyandtelescope.com/observing/highlights/94277259.html>



Bill Goswick and his first observing session with his new Fujinon 25 x 150 Bino's

Jupiter has lost its Southern Cloud band



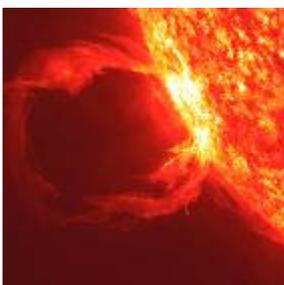
For those not wishing to climb out of bed so early Jupiter is putting on a fine show in the SE sky and can be seen as late as 5:30 AM. When Jupiter emerged from behind the sun a few weeks ago it was observed that the Southern Equatorial cloud band has faded out. Experts are still unsure of the cause for this but, it is well worth observing this planetary oddity.

http://science.nasa.gov/science-news/science-at-nasa/2010/20may_loststripe/

The great Red Spot should stand out better against the brighter background now that the strip has faded.

Transit times for the Great Red Spot can be found at:
<http://www.skyandtelescope.com/skytel/beyondthepage/91731334.html>

Some additional interesting news from NASA



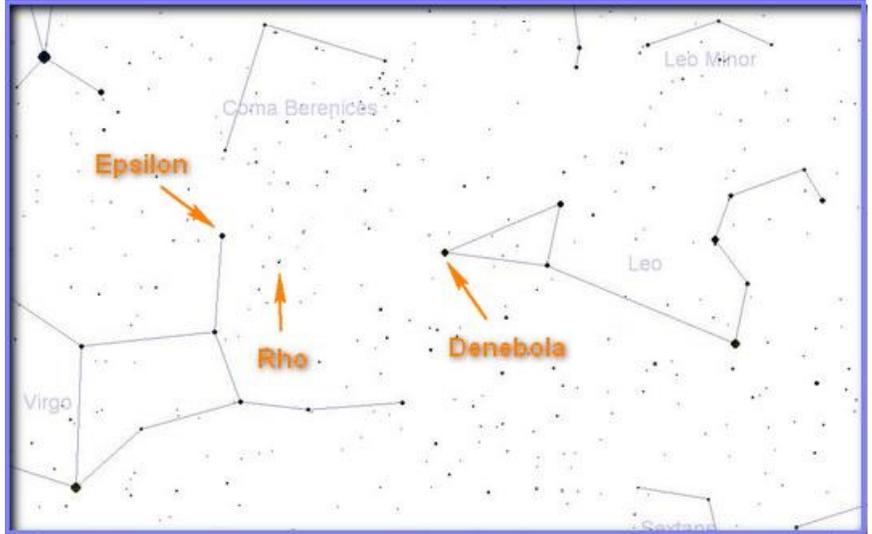
The Solar Dynamics Observatory (SDO) launched Feb 11, 2010 has begun producing amazing high definition photos of the Sun. SDO is equipped with 10 cameras covering 10 wavelengths. Each camera takes images every 10 seconds with a resolution of 4096 by 4096 producing 16.7 megabyte images. The satellite is positioned over New Mexico in an inclined Geosynchronous orbit that allows it to continuously stream data to the Earth at a rate of 1.5 Terrabytes per day! For amazing First light images go to http://science.nasa.gov/science-news/science-at-nasa/2010/21apr_firstlight/

Getting Through the Virgo Cluster

By Ann Bruun

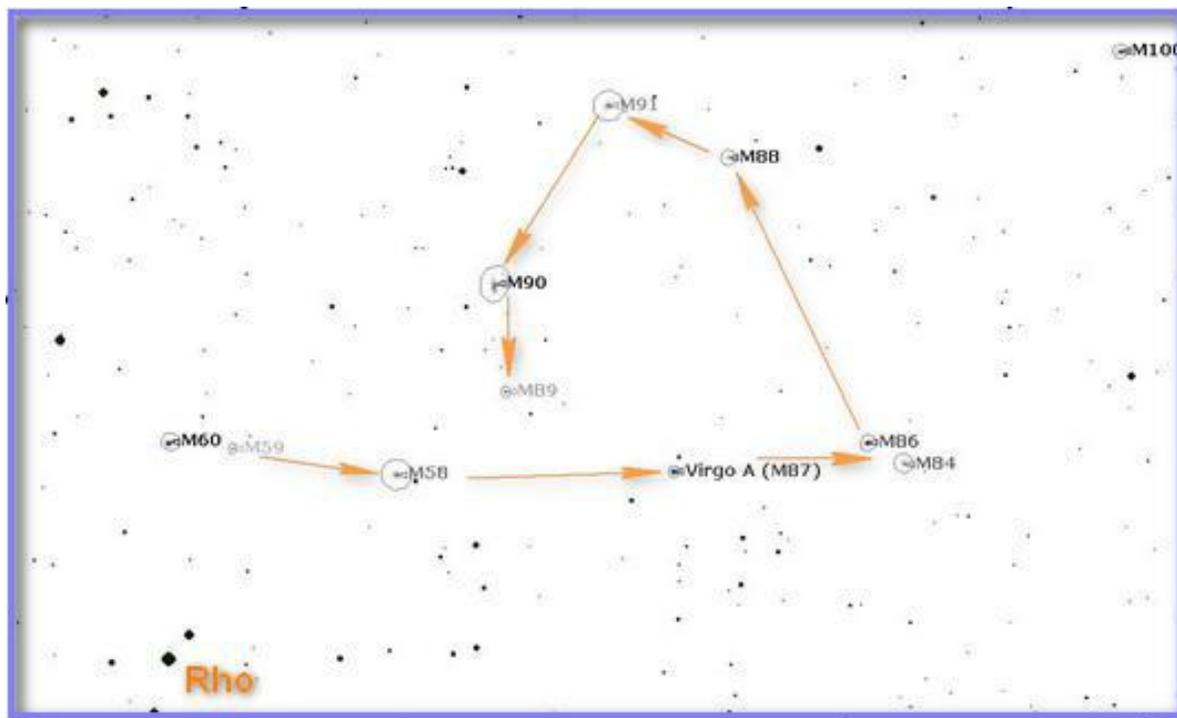
THE VIRGO CLUSTER – a phrase that strikes fear in the hearts of intrepid amateur astronomers! BAH – it's not that bad. I'm not going to deny that the bigger your scope the easier it is to get through, but it can be done with a small scope too. All you need is a road map.

The first thing to do is get oriented. I always find Virgo from Leo. The Lions body ends with Denebola, or as I like to call it, Leo's butt. Following the point of Leo out you come to a seeming void but that's where the cluster is located. Moving down you run into a wide “V” or “U” shape, this is Virgo. I



always think of the “U” shape as her arms spread out to the cluster. The end of the far “arm” is Epsilon Virginis; this will be our starting point. If we get completely lost on our journey we can always get back to Epsilon. Moving right from Epsilon 5° we find Rho Virginis. You should be able to just see Rho naked eye. Using an eyepiece with a 1-degree Field of View (FOV) move up from Rho 1.5 degrees and you will run into M59 and M60. These two galaxies are what we will call our “home base”; they are the beginning of the galaxy road. Harvard Pennington first introduced me to the idea of using M59 and M60 as a home base in his book “The Year-Round Messier Marathon”. I highly recommend this book if you are interested in marathoning.

M59 and M60 make a nice home base because they both fit in the same field of view when using a 1-degree FOV eyepiece. M60 is much brighter than M59 but the two of them in the same field are distinctive.



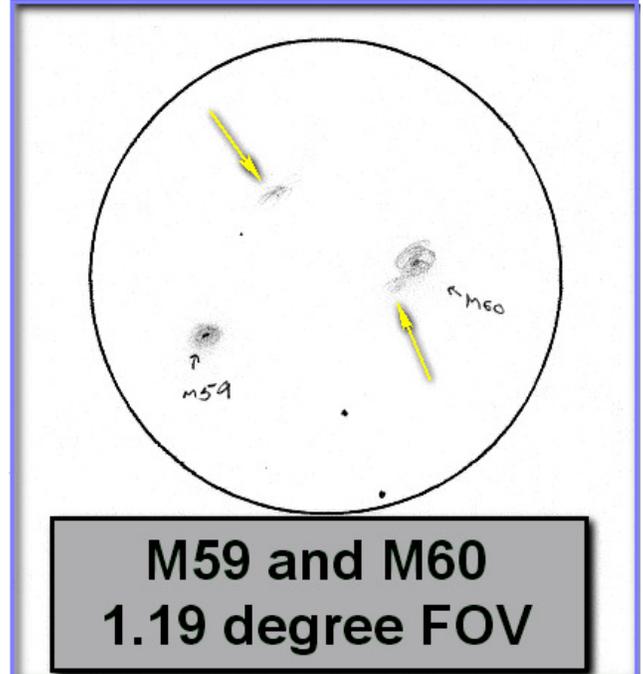
There are also a couple of other galaxies in this field if you have a larger scope. Follow the line from M60 to M59 and keep moving that same direction about 1 degree and you will run into M58, another relatively bright galaxy. If you continue that same direction but take a longer leap this time and you will run into M87.

You may have to go back to home base, M59 and M60 and take a run at it. Take off from M60 following the direction to M59, keep moving past M58 and you will run smack into M87 a bright (always relatively) round galaxy.

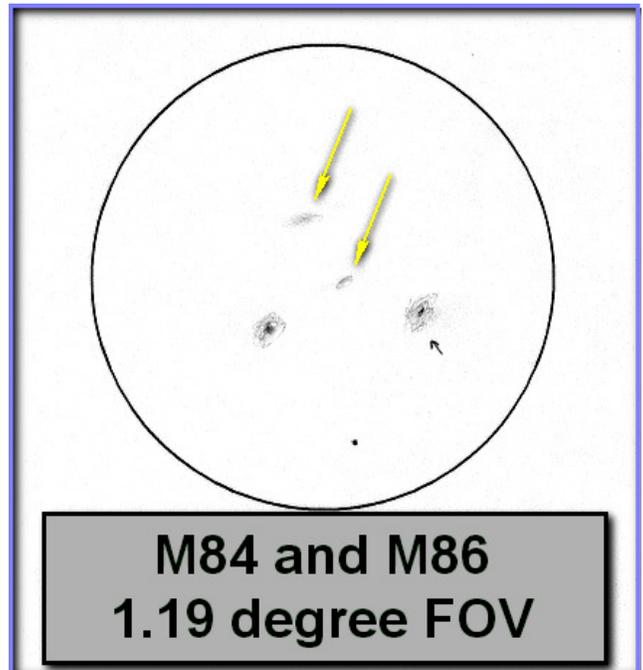
The next stop, M86 and M84, is a nice pair of galaxies that both fit in the same 1° field of view. From M87, keep moving the same direction as before to find them. This field of view also contains other galaxies, which can be spotted with larger scopes.

Now for the first real challenge, we have to make a left turn. Use the line of galaxies we have been following as the base and go up and slightly left from M86 and M84. You will have to travel 2° to find M88. With a 1° FOV eyepiece you should catch it in your view. It is another bright oval galaxy. Now for the second challenge, M91. Very near M88, M91 should be easy to find. Most books don't give any indication it would be any trouble. I think the trouble is that M91 is smaller than the other cluster galaxies and is easily over looked. I have spent a lot of time doubting I could possibly be looking at the correct object.

Now we turn back and head toward the base line of galaxies. Down from M91 1.2 degrees is M90, a large oval. Its' size will makes it a bit fainter than you might expect but it is still easier to spot than M91. Keep moving down to find M89; it should enter your 1-degree field of view just as M91 starts to move out of view. That's it! If you keep moving down you will once again run into M58 on the baseline. We have swept up ten galaxies on our Virgo loop. Once you have run the loop a couple of times the galaxies will start to become familiar to you. Look for the extra galaxies in the fields this will be a good warm to get you ready to start looking for Herschels. The next list to strike fear in the hearts of armature astronomers!



**M59 and M60
1.19 degree FOV**



**M84 and M86
1.19 degree FOV**



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!

Adam's Ranch Information *from Ann Bruun*

It is Adam's Ranch Registration time. The event is open to Astronomy Club of Tulsa Members and their families. If you do not have the forms please email me and I will send them to you for the Adam's Ranch Dark Sky Weekend, July 9th and 10th. Please fill out the registration and send it in as soon as possible. There are 15 bunks available in the coed bunkhouse, which cost \$30 per night. The \$30 fee is what the Ranch charges, the club does not keep this money. There is plenty of room for tent camping and space for RVs, which is \$5.00 per night per person. This will help pay for the Porta-Potty. The \$10 registration fee includes a dinner Saturday night at the bunkhouse for everyone. The dinner will probably be lasagna and a salad, which the club will provide. Anyone, who wants to, can bring something to go along with the dinner. We are supposed to leave the bunkhouse in the condition that we found it, so we will have to clean up after ourselves. The ranch also requires we all sign a liability release form, please print out the attached release form and bring it with you to the ranch. The registration form is in excel format and will add up the fees for you. Just follow the instructions on the form. Save a copy and email it in to reserve your spot. In the subject line put – Your name – Ranch registration

Email to Ann Bruun: act_obs@astrotulsa.com
 Then print it off and mail it in with a check to:
 Astronomy Club of Tulsa
 1307 S. Winston Ave.
 Tulsa, OK 74112

You can send in just your registration/reservation cost and pay the rest when you get to the ranch or you can pay it all when you register. Reservations cannot be held if payment is not received and the registration fee, \$10 per person, is non-refundable. You will need to provide all your own food except for the dinner Saturday night. Also don't forget bug repellent!

Adam's Ranch is located on a 30,000 acre ranch about 20 miles NW of Pawhuska OK. It is one of the Darkest places in Oklahoma. Skies easily exceed 6th magnitude viewing naked eye. This ranch once belonged to Oil Tycoon Boots Adams who had his own private airport on the ranch. The ranch has a large bunkhouse with kitchen, bathroom/showers and living area. There are several nice places to visit in the area. The ranch is adjacent to the Tall Grass Prairie preserve that features 36,000 acres of open range and 5000 head of bison. Pawhuska has several historic buildings and Bad Brad's Barbeque is a favorite eating-place. About 40 miles

west is Ponca City with its historic Marland Museum. Those not staying at the ranch may inquire about motels in Pawhuska but be sure to tell them you will be sleeping in the daytime. If you have any questions you can email me at act_obs@astrotulsa.com. I am also looking for someone to help coordinate the dinner. Please email me if you can help out.



Upcoming 2010 Events

Grand Canyon Star Party June 5 to 12 <http://www.tucsonastronomy.org/gcsp.html>



MidStates Regional convention
June 4- 5, 2010 Lincoln, Nebraska
<http://msral.org/>



National Astronomical League Convention
June 25–26, 2010 Tucson, AZ
 Side trips include tours of Kitt Peak
 national observatory
<http://alcon2010.astroleague.org/>

Adam's Ranch July 9 and 10 *Registration information in this issue*

Nebraska Star Party Aug 8 to 13 <http://www.nebraskastarparty.org/>

Heart of America Star Party Sept 2 to 9 <http://www.hoasp.org/>
 In west central Missouri

Okie-Tex Star Party Oct 2 to 10 <http://www.okie-tex.org/>

If you know of an upcoming event not listed here that may be of interest to club members, Please email relevant information to act_pm@astrotulsa.com

**ASTRONOMY CLUB OF TULSA
MINUTES
GENERAL MEETING FRI APR 30, 2010**

PRESENT:

Tom McDonough
Ann Bruun
Tamara Green
John Land
Steve Chapman

NOT PRESENT:

Chris Proctor
Teresa Kincannon
Catherine Kahbi
Denny Mishler

There were approx. 30 people present.

President Tom McDonough called the meeting to order at 19:03.

Tom welcomed all to the meeting and introduced himself. One new member was present. The rest were regulars. Tom then introduced the agenda, including the program, upcoming events and announced that there will be no Astronomy 101 this evening, due to the scheduled presenter, Chris Proctor, having been called out of town on business.

The main program was Stephen Farwell, whose topic was Amateur Telescope Making. He told a wonderful story about how he became interested in astronomy. He showed us his home-made telescope, which is an exquisite truss-tube Dobsonian reflector, the rocker box made out of highly polished wood. He explained all the criteria for building the telescope, i.e. it must fit in his car, fit through the door, be easy to move, etc. He disassembled the telescope and explained all of the design features.

Following Stephen's presentation, Rick Walker talked about his telescope that he made, which was a John Dobson design, a "true Dobsonian", as he called it. It was called the Dobsonian Sunscope. He explained how the sunscope works. One end of the tube had a two-way mirror at a 45-degree angle. No aluminum coating on the mirror, it is only cut, ground, and polished. The tube was made out of sections of heavy cardboard tubing. Dobson says simple is better. Simple and cheap. Rick also talked a little about his and Peg's visit with Mr. Dobson in California. While there, Rick and Peg did get a crash course in mirror grinding. They now have mirror blanks personally ground by Mr. Dobson.

Following Rick's presentation, Tom McDonough showed us his cardboard mock-up of a Dobsonian rocker box. He talked about our amateur telescope making group and how we are making our own scopes and mounts. He also had a cardboard upper cage assembly!

Following the telescope presentations, Tom announced an 8:32 PM pass of the ISS, a -8 magnitude pass!

Department reports:

Treasurer – John- 143 members: as of April 15, we have \$2448 in checking, \$ 4473 in savings; we rec'd a net positive \$1065 for calendars.

Secretary – Tamara read minutes from March meeting.

Groups and Facilities – Teresa, Chris both absent, no reports.

Observing – Ann announced the Adams Ranch weekend, to be held on Jul 9-10. She will send out a sign-up form.

PR/Outreach – Owen has been trying to contact the new management at Riverwalk, no avail. Rick got a hold of them, we are scheduled at Riverwalk on Saturday, May 1 at 6:30, weather permitting.

Tom adjourned the meeting at 20:19. Membership went to Hideaway Pizza on Cherry street for dinner and socializing.

Past meeting minutes are archived within the newsletter archives on the Astronomy Club's website. Please visit <http://www.astrotulsa.com/Archive/archive.asp> to view previous month's newsletters.

Land's Tidbits *for May 2010*

– by John Land

Our membership rates for 2010 – 2011 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 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 it with 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 filling 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

OFFICERS

President: Tom McDonough 918-851-2653

Vice-President: Ann Bruun 918-231-0301

New Members :Owen Green 918-851-8171

Observing Chairman: Ann Bruun 918-231-0301

Membership questions: John Land 918-695-3195

Secretary Tamara Green 918.851.1213

Observatory Caretaker: Chris Proctor 918-810-6210

Contact Chris to volunteer to help with observatory projects

Observatory Spring Cleanup Days

Contact Chris Proctor to volunteer 918-810-6210 act_maint@astrotulsa.com

The Astronomy Club of Tulsa is made of about 150 members who share a common love of astronomy. Unfortunately most of us live under light polluted skies. Our Observatory gives us a retreat to gather under darker skies but we can only continue to enjoy its use if we **VOLUNTEER OUR TIME AND EFFORTS TO MAINTAIN THE BUILDING AND ITS GROUNDS.** The harsh winter of 2009 has taken a toll on the facility and lots of work is needed to get it ready for the spring and summer observing seasons. So, bring your outdoor work tools such as weed eaters and tree pruning equipment or help out indoors with cleaning – painting – stair repair.

Your club dues only pay the bills – we need some SWEAT EQUITY to keep the observatory and grounds in good shape. Also, if you are willing to volunteer to help with mowing and trimming this summer let Chris know.

For all the scheduled club events for 2010 you may wish to purchase the first edition ACT calendar. Prices now reduced to \$ 6 each. This calendar includes club events, plus a wealth of other astronomical data.

Details are on the website at www.AstroTulsa.com

CLUB OFFICERS

POSITION	NAME	PHONE
President	Tom McDonough	918-851-2653
Vice-President	Ann Bruun	918-834-0757
Treasurer	John Land	918-357-1759
Secretary	Tamara Green	918-851-1213

BOARD MEMBERS AT LARGE

NAME	PHONE
Steve Chapman	918-342-1643
Catherine Kahbi	918-409-1867
Teresa Kincannon	918-637-1477
Denny Mishler	918-274-4772
Chris Proctor	918-810-6210

APPOINTED STAFF

POSITION	NAME	PHONE
RMCC Facility Manager	Chris Proctor	918-810-6210
Membership Chair	John Land	918-357-1759
Observing Chair	Ann Bruun	918-834-0757
New Members	Owen Green	918-851-1213
Group Director	Teresa Kincannon	918-637-1477
Webmaster	Tom McDonough	918-851-2653
Newsletter Editor	Allen Martin	918-407-9706
Night Sky Network	Peggy Walker	918-640-0832
Program Director	Vacant	

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



Night Sky Network

Astronomy Clubs bringing the wonders of the universe to the public



<http://www.astroleague.org>

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

ACT welcomes your questions, suggestions, comments and submissions for publication.
Please send all inquiries to act_pm@astrotulsa.com