



Astronomy Club of Tulsa

# OBSERVER

July 2005

<http://www.AstroTulsa.com>

ACT, Inc. has been meeting continuously since 1937 and was incorporated in 1986. It is a nonprofit, tax deductible organization dedicated to promoting, to the public, the art of viewing and the scientific aspect of astronomy.

## **What**

The Astronomy Club of Tulsa Star Party

## **When**

8 July about 8 P.M.

## **Where**

RMCC Observatory near Mounds

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## **President's Message**

**Craig Davis**

We've stepped into a long hot hazy summer and it is most certainly showing itself quit well. Even so, as the summer goes on there will be plenty of good clear nights for all of us.

A special Thanks goes out to all of the club members that participated in the early June event - PRAIRIE THUNDER. An additional special Thanks goes to Neta Apple for doing so much in coordinating the event and getting Lou Mayo, Goddard Space Flight Center, as our guest speaker. It went quite well even though it was a hot windy day. The weather played plenty of tricks on us but still; it was very much enjoyed by so many people in the Pawhuska area. From the way things went we would undoubtedly be invited back again. Of course I'm sure we will hear from either Vince Moore or Hal Ellis in the not so distant future about teaming up with the Tulsa Rocket Club again. And once that occurs, standby, I'll let everyone know so you can come and enjoy. It's a lot of fun watching the little, and very big, model rockets fly.

Now then, to let everyone know what's been going on out at our observatory that has been very trying to many of us. Over the past few months we have had to replace the locks on the main gate to the observatory four times. The upper gate lock has also been replaced before too. Why? Well, we are being harassed by a group of vandals that ride around on four wheel ATV's and get

pleasure out of cutting our gate locks and chain as well as tearing up the club sign that was mounted on the west side main gate post. We have an idea as to whom they may be but the only problem is that to stop them we would have to stand guard duty on the main gate 24/7 and that of course is impossible. The Okmulgee Sheriff has been contacted about this problem three times so they are fully aware of what's going on. But they too are manpower limited as well as budget limited. In simple terms, they can't be there all the time either. They have increased patrols but that will only possibly increase their chances of spotting and or catching the vandals. Since this first started several months ago there is now a new owner of the old AT&T building - Blake Bowers, Frosty, Inc. Mr. Bowers was very upset with the locks being cut and tossed too. Due to his concern that more attempts at breaking in the AT&T building, as well as our own property, he openly stressed to get a lock and chain back on the main gate in exchange for working with us on this problem.

First, a new much more heavy keyed padlock is now on the main gate. The new padlock has a very strong steel guarded shackle, which will make it much more difficult for the vandals to cut off. And since it was installed, it's not been messed with at all. A key to this lock is available on request only. Mr. Bowers has also placed several "Private Property" signs on the main gate and elsewhere along with turning the outside lights on for building security. Be it known, as forcefully stated by Mr. Bowers, that anyone, excluding our club and the Ham radio club, that is around or messing with the AT&T building will be prosecuted immediately! He has no qualms of carrying this out at all. If at any time you see anyone up around the building that looks suspicious, please contact the Sheriff immediately. In exchange for our efforts we now have a key to the building, which gives us access to the light switch that he had installed specifically for us to shut off the building lights whenever we may be out at the observatory. There is also an additional restroom now available for our usage.

Last Monday, I installed a T-post that had a chain welded to it near the gate when it's open so that it could be locked up and prevent club members being locked in as had happened before. That outrageous event occurred the evening of our last club star party. Undoubtedly the word of what all took place has made its way through the grape vine to many of you. Needless to say, it was not very funny that the vandals had slapped a chain and padlock on the main gate so as to lock several club members in that night. That was taken care of so they could get out but then further down the road they had also placed several old tires and rocks in the middle of the road that had to be cleared out of the way too. The Sheriff was called on this occurrence of course. Again, installing the post to lock the gate open was a good idea but even so, it was installed on Monday and by the following Friday, it was gone - pulled up and taken who knows where. That's simply their way of letting us know that they haven't given up yet.

So, hopefully, with that, many of you can now understand as to why we had to do what has been done in an attempt to deter any further problems. It was in no way carried out to interfere or limit the number of club members to the club's observatory, NO! It simply had to be done in an effort to maintain a positive level of security for both our club's observatory and the AT&T building. I apologize to the entire club for having to carry this out in this way but I had no other options available at the time.

Clear skies to all,  
Craig D. Davis  
President

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## Night Sky Network

By  
Neta Apple

By now I am sure that most of you have heard that Prairie Thunder was very successful, in spite of the weather. ACT had about twenty members there during the day showing about 200 people the sun, and doing activities. Many thanks to all of you who helped out! Without you, this event could not have been done.

John Land's planetarium show was very popular and he and Marilyn deserve our thanks for running that all day. Turns out that was their 35th wedding anniversary weekend and they gave it up for Prairie Thunder!

The wind kept the rocket club from launching most of the large rockets and us from doing some of the things we had planned as well. We had a few moments of tension when one large rocket came to rest just across the road from where we were set up, burying itself about 16 inches into the ground; its chute opened about fifteen feet above the ground. Lucky for us it went across the road and not down the tube of a dob! No wonder the rocket club wanted us so far from ground zero!

Lou Mayo from GSFC spent the day with us talking to people, helping us, and thoroughly enjoying himself. His presentation about Saturn and Titan at the Constantine that evening was very memorable. I spoke with Lou about two weeks after the event and he told me that he wanted everyone know that he was very impressed by the professionalism and organization of ACT. He also really loved our observatory and our sky! He sends his thanks for making him feel so welcome while he was here.

He also said that he was concerned that he had not answered one of the questions asked of him after his talk properly so sent the following in e-mail:

I very much enjoyed giving my talk at the historic theatre. What a treat to be in such an old building - and, of course, your introduction and the very thoughtful plaque was much appreciated. As I always do, I went over the talk and the Q&A later. I am not happy with one response I gave to the man who asked me essentially "What powers Titan's atmosphere". I gave a very poor answer. The real answer is this...

High up in the atmosphere, solar radiation is absorbed by aerosol particles. This heats the stratosphere to temperatures around 160 degrees Kelvin. Though Titan only receives about 1/100th of the sunlight that Earth does and only 10% of that makes it to the surface, it is still sufficient to provide some heating of the surface. As on Earth, the surface re-emits this radiation, heating the air near the ground and causing it to rise. This heating is responsible for circulation in the troposphere as well as the decrease in temperature from around 92 degrees at the surface to 70 degrees or so at the tropopause (at 40 km). There is also a moderate greenhouse effect from gasses (mostly from Methane) in the troposphere that raises the surface temperature. In the mesosphere, the temperature generally decreases with height due to radiative cooling into space from hydrocarbons. Further down in the lower mesopause, these same molecules cannot radiate their heat away into space so they act to heat up the upper stratosphere.

Our star party had to yield to true prairie thunder when spectacular thunderstorms arrived. Most of us will never see a lightning show like that ever again! It was indescribable!

Now comes the part of this article that I have long dreaded. As many of you already know, I will be moving to Missouri soon. Rick has been working there for the last seven months, hoping that he could find a way to transfer back to Oklahoma, while the boys and I stayed here. It has been very hard, and with current budget cuts there is nothing opening up here.

This will be my last newsletter as NSN Coordinator for ACT. It is with heavy heart that I must resign as NSN coordinator and also from the board of ACT effective August 1. Thank you for all the support and good wishes that you have given to me in my efforts to get the NSN for ACT up and going. I have thoroughly enjoyed all of you and will be checking in on you now and then. I especially want to thank our president, Craig Davis, for his trust and support in my efforts. No one could ask for more than he has given!

When I first learned I had to leave, I was concerned about who would take over the work that we have started here. Together, we as a group have laid a strong foundation to expand the outreach activities of ACT that I want to see built upon, and not lost. I pondered whom I could get to take over for me. I wanted someone with enthusiasm and dedication to education above all. I have to admit it took some time to convince my successor that he could and should do the job, (I didn't have to twist his arm out of the socket or inflict bodily harm thankfully!), but he finally acceded to my request. So I am happy to tell you that Jerry Mullenix will be taking over as NSN Coordinator! Many of you know Jerry from his writings in the newsletter. He certainly loves astronomy, ACT, and knows how important it is to educate the public. He doesn't have as much free time to work on this, as I know he would like, so here is where the rest of you come into the picture. As one final request to all of you, I ask that you give Jerry your full support and give him even more help than you have given me. Jerry will lead ACT into a new era of public outreach that will be great. The foundations have been laid; now it is up to all of you to help him to build the structure. I know from what you have helped to accomplish just recently at Prairie Thunder, you will all do as much as you possibly can to support him. Recent changes in the club also bring opportunities to try new things, and Jerry is ready to meet the challenge.

The good news in all of this is that from the backyard of our new home, on a night with much less than perfect atmospheric conditions, we could see stars down to magnitude 5.5 in Ursa Minor, naked eye. Once we get moved and settled, we will be resuming working on the Astronomical League observing lists. I have hopes of starting a new astronomy club at the local school. I have also been invited to help Vic Winter of IC Stars with his Star Garden Foundation. In addition, I plan to start working on a master's degree in astronomy, time and finances permitting, in about a year. While I will be busy doing what I love, that doesn't mean that I will ever forget you my friends, or ACT. A portion of my heart will still be here with all of you and with the students in my student club here in Chouteau. Let us not say good-bye, but farewell for now. Thanks so very much to all of you that have worked your hearts out, and especially to those who made Rick and me so very welcome when we first joined ACT. We will still be as close as the phone or e-mail, and you never know- we might just drop in for a meeting or a star party now and then.

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## ACT ASTRONOMY EVENTS

### EVENTS AT RMCC OBSERVATORY:

#### JULY

3 Sun 8:00 PM Deep Impact mission, comet impact at 12:52 AM CDT July 4, may be possible to see this from here, but will be very low in SW.

8 Fri 8:00 PM Club Star Party, open to general public

9 Sat 8:00 PM Backup for star party if cancelled on Friday

16 Sat 12:00 noon, Scout troop 85 (25) Will camp out overnight, leave Sun AM

#### AUG

5 Fri 7:30 PM Club Star Party, open to general public

6 Sat 7:30 PM Backup for star party if cancelled on Friday

11 Thu 7:30 PM to dawn? Persied Meteor Shower watch party

13 Sat 5:00 PM Tulsa Bicycle Club (Will camp)

14 Sun ??? Tulsa Bicycle Club

#### SEP

12 Mon 7:00 PM Ohess Home School (20)

30 Fri 6:00 PM Club Star Party, members and guests

#### OCT

1 Oct Sat 6:00 PM Backup for star party if cancelled on Friday

### EVENTS AWAY FROM OBSERVATORY

#### JULY

19 Tue 8:00 PM Girl Scouts (85) Camp Washashe, West of Bartlesville

#### SEP

16 Fri 7:30 PM General Meeting at TU, Keplinger Hall

24 Sat 6:30 PM Girl Scouts Jamboree (200) at Box Ranch north of Sapulpa

27 Tue (Time TBA) Edison Middle School (200) at Dry Gulch NE of Pryor

#### OCT

1-9 Okie-Tex Star Party, Oklahoma panhandle near Kenton <http://www.okie-tex.com/>

**Astronomy Club Star Party - Friday July 8th**

8:00 PM to Dawn - Sunset is 8:38 PM

Come early and bring some snacks for an impromptu club picnic. ( Alternate Night Sat. July 9 if weather is poor July 8)

During the summer months club members and their guests gather for a summer star party. We start gathering about 7:30 to 8:00 PM. Some people like to bring a few snacks and have a little picnic before hand. It is recommended that you bring your own drinks as the rural water is not very tasty. We have plenty of folding chairs and a picnic table but you are welcome to bring your own lawn chairs or tarp or blanket to sit on. The observatory has a restroom. Insect repellent is recommended in the summer months but please do not spray them near the telescopes. You don't need a telescope to enjoy a star party. The club has a 16-inch telescope in the dome and most club members are willing to share the view through their telescopes. Telescopes are often set up to check for sunspots. Members and guests are welcome at the summer star parties.

Observatory images at <http://www.astrotulsa.com/Club/observatory.asp>

Club Observing Nights at Mounds Observatory -

If in doubt call one of the Club officers or 688-MARS for messages.

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. We also have propane grill for cooking. There is a restroom available. Bring your own telescope or just enjoy looking through the club's sixteen-inch telescope or share 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. 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 at both events but must be supervised and must stay on observatory grounds. Insect repellent is beneficial in the warmer months.

**The Okie-Tex Star Party** is held in the tip of the Oklahoma Panhandle under splended ink black skies. More than 300 astronomers from all over the nation gather each year for this event. Many of our Tulsa club members attend each year. For details and registration go to. <http://www.okie-tex.com/>

Earth is racing toward Mars at a speed of 23,500 mph, which means the red planet is getting bigger and brighter by the minute. Details at: [http://science.nasa.gov/headlines/y2005/27may\\_approachingmars.htm](http://science.nasa.gov/headlines/y2005/27may_approachingmars.htm)

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## Lands Tidbits

by John Land

Welcome to our new members: **Kenneth Gillespie, Mona Saleh, and Peggy Medina**

DON'T LET YOUR MEMEBERSHIP or Subscriptions LAPSE !! Check your MAILING LABEL for membership expiration date. Those receiving Email should get a reminder when your membership is up for renewal or you may contact John Land. Please NOTE CHANGES in Annual Dues on membership form. You may also renew magazine subscriptions through the club for substantial discounts.

**Note CHANGES in Student Rates:** At the May meeting clubs dues were increased to better meet the clubs needs. The term student was defined as shown below. If you are a student and plan to participate in any of the Astronomical League certificate programs you will want to send in a additional \$ 5 to cover League membership. As a League member you will also receive the quarterly magazine "The Reflector" For more information on the League go to <http://www.astroleague.org/>

**A NEW GUEST SIGN IN SECTION** on the Website is already bringing the club new contacts for potential new members.

**Changing EMAIL** - When you change your email or mailing address be sure to send me the new information so I can update the club records. You can use the Join feature on the club web page to make changes. Several of you are using SPAM BLOCKING software that prevents you from receiving club information and news updates. Contact John Land for commonly used email senders.

### **Club Memberships and Renewals:**

Adults - \$ 35 per year includes Astronomical League Membership  
Students \$ 15 without League membership.  
Students \$ 20 with League membership.

\* Student shall be defined as a person 25 or younger actively taking courses at a college or trade school or persons still in High school or below.



\* Adult Students over 25 may join at the student rate for one year if enrolled in an Astronomy course in an area college.

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**

**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 \$29 for 1 year or \$55 for 2 years. [www.astronomy.com](http://www.astronomy.com) Sky & Telescope is \$33 / yr [www.skyandtelescope.com](http://www.skyandtelescope.com) Sky and Telescope also offers a 10% discount on their products. NIGHT SKY is \$18 / yr A exciting new bi-monthly magazine for beginning or casual astronomers. <http://nightskymag.com/>

**Address Corrections-** Email changes - Questions: You may forward questions to the club call our message line at 918-688-MARS ( 6277 ) by email [membership@astrotulsa.com](mailto:membership@astrotulsa.com) Please leave a clear message with your name, phone number, your question - along with address or email Please make email subject lines that address your question.



## **ALConExpo 2005.**

The Nation Wide meeting of the Astronomical League and the Association of Lunar and Planetary Observers will meet in Kansas City, August 12-13, 2005 for ALConExpo 2005.

If you've never attended a major astronomical convention here is your chance to attend a major event in our area.

Details and registration form can be found in your June 2005 "Reflector" magazine on page 9

Online information at <http://www.alconexpo.org/AlconExpo/index.html>

Discount rates for early registration are due by July 15th.

Guest Speakers Include:

Don Parker of the Lunar Planetary Society noted for his astounding images of planets.

Dr. Bruce Twarog, University of Kansas Professor of astronomy

Mike Bakich, Associate Editor Astronomy Magazine

Mr. Galaxy, Wayne Johnson

Banquet speaker, Bruce Bradley, of the Linda Hall Library will give a close look at how they amassed such a world-class collection of rare astronomical publications.

There will an astronomical trade show and vendor exposition, guest speakers, and a Star-B-Q and observing at the Powell Observatory.

<http://www.askconline.org/powell.htm>

Powell Observatory has the largest telescope in a five state area. The main telescope has a 30" mirror, and is available for public viewing, club member private use, and for on-going research projects. this telescope is among the very largest telescopes in the entire country that is regularly available for public viewing of the night sky. In addition to the 30" scope, Powell Observatory has a 16" telescope for public programs, and a computer-controlled 12" telescope for research projects and member use.

C2005/K2—LINEAR



NGC-4565



By Rod Gallagher

Astronomy Club of Tulsa membership (\$35/year) includes membership in the Astronomical League and subscription to ACT's "Observer" and AL's "Reflector". "Astronomy" (\$29/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.

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**BOARD MEMBERS AT  
LARGE**

Neta Apple  
Steve Chapman  
Rod Gallagher  
Rocky Keys  
Dan Lamoreaux  
Tom McDonough  
Jim Miller  
David Stine

**APPOINTED STAFF**

**RMCC Observatory Director:**

Tim Davis—665.8134

**RMCC Facility Manager:**

Craig Davis—252-1781

**Membership Chairman:**

John Land—357-1759

**Observing Chairman:**

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**Webmaster:**

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**Astronomy Club of Tulsa**

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<http://www.AstroTulsa.com>

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