



Astronomy Club of Tulsa

OBSERVER

February 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 Meeting

When

18 February 2004 at 7:30 P.M.

Where

Room M1 inside Keplinger Hall, the Science & Engineering Building at TU. Enter the parking lot on the East Side of Keplinger Hall from Harvard and 5th Street. This will take you directly toward the staircase to enter the building. Room M1 is the first room on the left.

President's Message

Craig Davis

Another month has rolled on by and here we are heading towards a much warmer period of the year. Fortunately it hasn't been all that bad of a winter so far and we should consider ourselves lucky that we didn't get pounded with the freezing temps and tons of snow such as what befell the east coast. Even though we have been deprived of many beautifully clear nights there has still been several. Initially, at last Friday's club star party things were looking pretty good except for some high layer clouds for a couple three hours. Many of us gathered in quite a beautiful view of the comet Maccholz as well as the same on Saturn. Between K.C.Lobrecht's 13.1" dob, Tim Davis's 12" dob and Steve Chapman's 10" dob, we all had some very splendid views available of not only the comet Maccholz and Saturn but several other deep space lovelies as well. At times it was truly amazing what Tom McDonough was pulling in with his refurbished 6" Astrola. Pinpoints galore! Needless to say most everyone was having good luck on whatever they may have been observing. Be it equipped with a scope or nothing more than a pair of binoculars. But alas, the clouds moved in on us and that was more or less the end of it all from around eight o'clock on. That pesky layer of thin cloud film was floating above and set up a natural filtering system that honestly tossed most everything out the window. Of course there was a hole here and there that we could grab a quick look through. But again, overall, it had brought us to an early "pack it in" time.

Keep your fingers crossed for clearer skies and more observing time next month!

A special “Thank You” goes out to Rick Ryan for donating the new microwave oven to the club. It sure is nice to be able to cook up popcorn or heat up a cup of water for some hot chocolate again. Makes a tremendous difference!

It’s a true shame that we will not have the Hubble Space Telescope much longer. It unfortunately has been set off the possible repair list at NASA due to the new budget that has come in. Perhaps it will be brought back to that status level but if not, it has been quite a work horse for so many as well as provided all of us with some of the most wonderful views and pictures of our universe. Now wouldn’t it be a hoot and a half if it were to show up on Astromart Classifieds or E-Bay! The only catch on that would be – who would want to pay for the shipping costs?

At our upcoming club meeting, February 18th, our guest speaker will be Dr. Karen Leighly, OU. Dr. Leighly will present to us a very interesting subject that we have never had a speaker cover before, X-Ray Astronomy. Since that is one of the very focused and specialized areas of study in astronomy it will without a doubt perk up our ears and interest levels by quite an amount. X-Ray emissions are all over the universe but where they come from and just what they do will be a most interesting area to find out about. Who knows exactly what X-Ray astronomy is all about or what purpose it serves? I’m quite sure that we all will have a much better understanding and answers to many questions concerning this very soon. Look forward to Dr. Leighly and all that she will have to relay to us. Can’t ever tell, it might very well be more interesting and intriguing than what you may expect.

Clear skies to all,

Night Sky Network

By Neta Apple

I can't believe another month has come and gone and we are still plagued by clouds and rain. We have had to cancel several events due to weather. While this is a major disappointment, on the other hand it gives us a chance to plan for the time ahead when we hopefully will have better weather.

To that end, I want to tell you a little about a major event that is in the initial planning stages. As you know last month I mentioned that we have been invited to join with the Tulsa Rocket Club on June 4 in Pawhuska for their big launch. The event now has a name. It will be called

Prairie Thunder. It will be advertised in 60 newspapers in Oklahoma and southern Kansas. Flyers will be posted in Pawhuska stores. The last launch there was in October and I was told that the support from the town of Pawhuska was tremendous! People came from many of the surrounding towns as well. The rocket club uses the old airport outside of town during the day and we have been invited to come do a public star party there that night. Also we will have other activities during the day such as solar observation and a booth with materials that we can give away and possibly some small items for sale. One thing that we are working on is to get a Star Lab inflatable planetarium set up for the day. The president of the rocket club and I have been discussing trying to get the Chamber of Commerce to help sponsor educational packets that we can give away to teachers in attendance. The rocket club is meeting with the Chamber of Commerce this week and I should know more by our meeting next week. But for now, please mark your calendars for June 4. This looks to be a very fun and rewarding day. I am told the sky there is very dark and that the Milky Way is visible nearly horizon to horizon. No matter what your area of expertise you can help with this event. We will need people to help with set up of the booth and to be available to talk to people during the day about astronomy, telescopes, and the club. We will need both white light and H alpha scopes for the "sun party" during the day. We will also need people to bring scopes for the night. I am sure we will also find ways to make this a very fun and memorable event for us as well as the public. With any luck we can get Denny to bring out his grill so we can all enjoy a great meal too!

We also have received our latest NSN kit. This one is called "A Universe of Galaxies." **If you are interested in seeing what the NSN materials are about, please come early for the meeting. Come at 7 PM and I will introduce the kits to you and have you do some of the activities.** This will be something in which your whole family can participate. We also received our NSN banner with the NSN and NASA logos on it. We do need ties for it though.

I also still need to hear from more of you about ideas for the display case in the Zarrow Library. As you may recall we have been invited to do a display in their showcase for the month of May. I will look forward to hearing from you about your ideas and about anything that you would be willing to loan us to be displayed in the case. The case is locked and near the circulation desk, but I would not advise putting in expensive or irreplaceable items.

LASER POINTERS and Public image

By John Land

There was a recent flurry of news reports concerning laser pointers being pointed at or near airplanes. The news of course played it up as an act of aggression or terrorism. Some pilots have reported the bright green lasers as being very bright and distracting in the cockpits. In fact the one person reported being arrested for shining one at an airplane was an amateur astronomer in Ohio. At one of our Tulsa Zoo events I had to remind a member not to be pointing a laser when planes were making a landing approach. The Astronomy Club of Tulsa has been around since 1937 and has the good reputation across the region. It only takes one negative news event to spoil our reputation and it could take many years to rebuild it.

Several of our club members have the new brighter green lasers. They are great tools for pointing out stars to the public and can even be used to show fellow astronomers where a particular object is located. **HOWEVER THEY MUST BE USED RESPONSIBLY.** We must be aware of where these things are being pointed and not randomly sweeping them across the sky. Even the simple lasers have a range of 2 miles or about 10,000 feet and some members have recently purchased much higher output lasers. Our observatory is in the approach pattern for planes coming from DFW and Houston. Smaller private planes are frequently flying into or out of Riverside Airport in Jenks.

Here are some of my suggestions for Responsible use of Laser Pointers

1. NEVER give a Laser to a kid or teenager - they are not toys - these pointers can cause temporary vision impairment. They may beg to borrow one at a Star party but once you hand the laser to them you no longer have control of how it will be used. I simply tell my students they have to be 21 to purchase them. Although they can find them for purchase don't be a party to telling them where or how to buy one.
2. If you are still acting like a kid playing with them grow up! - Go rent a Star Wars movie. They aren't light sabers.
3. Pay attention to where you are pointing them. If there is a plane near where you are pointing out objects then wait for it to clear the area. If you can't see where the beam is going turn it off.
4. If you are using them for telescope guidance. **TURN THEM OFF UNTIL YOU ARE NEAR THE TARGET.**
5. The new high output Lasers may be visible for several blocks in town and might cause public concern even when they are being used responsibly.

David's Astro Corner

"It's Messier Marathon Time Again!"

By David Stine

It seems like just yesterday when we went dusk to dawn trying to see all 110 Messier objects in one night. Well guess what, its time to start thinking and planning for the 2005 Messier Marathon. Mark your calendar for Saturday, March 12th at the TUVA Observatory site near Council Hill, OK. This is always an exciting event to participate in and you will not want to miss this year's marathon. Ron and Maura Woods are excellent host and they are inviting everyone to their place for a night of observing and discussion. Some of you may be asking what a Messier Marathon is. Several decades ago several different people began running a thought through their heads of what are the chances of being able to see all of the Messier objects in one night of observing. In short, after many calculations, these people including Tom Hoffelder, Ed Flynn, Tom Reiland and Don Machholz , determined that it was possible in March and April, depending on the year, to accomplish this feat given the right conditions. The first marathon became reality in 1977. On the night of March 24/25 Ed Flynn logged 98 objects and became the first person to attempt the feat. The next night March 25/26 Tom Hoffelder logged 101 objects and on April 11/12 Tom Reiland logged 103 and the marathon was born. Marathons began to pop up each year after, but it wasn't until March 23/24, 1985 that all 110 objects were logged by Gerry Rattley from Arizona. Then in 1992, Ron Woods decided to have what may be the first Messier Marathon in Oklahoma at his observatory at TUVA. It even got news press with the Oklahoma Today magazine, which you can see, a copy of the article at TUVA's clubhouse. On that night I was able to locate 98 of the objects and finding the most of anyone and being the first, was rewarded by having the Messier Marathon Award named after me by Ron. Now it is called the David Stine Award. The last winner was Rod Gallagher. In fact he has won the last two years. Rod located 101 last year and the year before 105. I don't think anyone in between those years has ever logged all 110, so there is still hope for you. This year, however because of the timing of the new moon being earlier than normal not all of the 110 are possible, but all but about 4 or 5 will be. Prior to the observing we always have interesting talks concerning astronomy and everyone brings a dish for a nice feast. If you have slides, pictures, etc. that you would like to share with everyone come early. The neat thing about this year's marathon is that we will have one of the originators of the marathon, Don Machholz's comet in a circumpolar position near Polaris on that night. A fitting tribute to Don. Other objects other than M-Objects that will be visible from the sight will be the huge Omega Globular Cluster and the second brightest star Canopus. Two comets will be visible, Machholz and K4. K4 will be a challenge but will be visible low in the WSW in Eridanus from dark until it sets around 9p.m. There are always surprises as we have had unusual beautiful auroras pop up, ISS and Iridium Flares and other satellites pass over during the event. Fortunately we have had good weather the last few years even though last year it looked bad

earlier in the day, but by the time it got dark the skies cleared for a great night. Now if I have got you excited enough you probably won't know how to get there. Its about a 35-45 min drive and you can meet me and go in caravan at 3:00 in the parking lot of Homeland at 91st/Memorial or if you go by yourself here are the directions: Go south on Memorial through Bixby make the big curve back east and go through Leonard and Haskell. Stay on Hiway 72 south through Boynton and Council Hill. Go 3.5 miles south of Council Hill and watch for "End 72" and Junction 266" sign. Exit left at junction. You can see a church steeple from "72" which is your landmark for turning East. You will be on a dirt/gravel road similar to our road to the observatory. Go East 2.25 miles to second stop sign and turn left(north) at a two story white house with black roof. Go north .5 mile and you will see an open field and house to the west. Turn left(west)into the field and come around the north side of the barn and you will see a small white building which is the TUVa Observatory and club room. We usually park our vehicles and set up our scopes around the clubroom depending on the room. The early birds get the best locations so come early. I will try and have a map on our website if Tom can add it. The TUVa clubhouse is a nice building next to the observing site where you can rest and warm up or even take some snoozes during the night. It also has observing books and manuals and even a meteorite and you can look through pictures and learn about the history of Rons Messier Marathon and see the plaque that has the names of the winners of the past marathons. Ron also has one of the largest home built telescopes that you will be able to view through known as BART(Big Astronomical Reflector Telescope). It does get cold sometimes and this year being in early March, be sure and bring several layers of clothing. This is one event you do not want to miss even if you don't attempt the marathon. Ron and Maura are great host and you will thoroughly enjoy talking with them and the skies are dark. I will update you through ASTRO ALERT as the event gets closer. Mark your calendar March 12th and plan on attending one of the highlight events of 2005. For more information on the History of Messier Marathon go to the site <http://www.seds.org/messier/xtra/marathon/results.html>. For more on TUVa go to <http://www.tuvaclub.org>.

Speaking of 2005, this year promises to be another exciting year for observing. Here is a short summary of what to expect.

Planets: Venus will enter the evening sky in early May and remain there through The year. Mercury will be best the first two weeks of March after sunset and the First half of December before sunrise, but also on June 27th Mercury will only be 0.1 degree from Venus making it much easier to find. Mars will be low in the East in the constellation Scorpius the first part of the year and will remain in the morning sky for half of the year. By August it will rise before Midnight in Aries. Mars reaches it's closest to Earth on October 30th and opposition on Nov. 7th and will be at its best since its 2003 opposition. Jupiter starts in Virgo and will have a close conjunction with Venus in early

September. Saturn will be in Gemini for the first half of the year then in late June have a close conjunction with Venus and Mercury low in the west at dusk. During September it will be near M44 the Beehive Cluster. Uranus and Neptune will be an easy target to locate on certain days in April and May. Neptune will be 1 degree above Mars on the mornings of April 12-14th and Uranus 1 degree above Mars on May 15th-16th.

Meteor Showers: The annual showers are as follows: Lyrid - April 22, expect 20/hr,

Eta Aquarid - May 6, expect 20/hr, Delta Aquarid - July 28, expect 20/hr, Perseid - August 12, expect 60-100/hr, Orionid - October 21, Expect 10-15/hr, Leonid - November 17, expect 10/hr, and Geminid - December 14th, expect 75-100/hr.

This year the moonlight will wash out fainter meteors in all of the showers except for the

Perseids and Eta Aquarid. Not too promising for this years showers.

Comets: Comets are discovered daily, so the best thing to do is watch for reports of New comets in my Astro Alerts. Comet Machholz will be visible in binoculars through March and telescopes through the end of the year, but now through March is going to be The best time to view the comet.

Remember Comet Hale Bopp, one of the best comets our generation has seen? Well recently this comet was observed with the 6.5m Clay telescope at the Magellan observatory. The comet was reported to still have a short 8.5 second long tail and was seen at Mg. 20.73. It's amazing that it can still be seen.

In last months article I reported about a possible impact of an asteroid with Earth in 2029, then found out it was not going to happen but still be a close miss. Well now more refined and extremely precise radar observations made on January 27-30th show just how close it will fly by and what we can expect to see if we are alive. The asteroid called 2004Mn4 will miss Earth by only 18,600 miles this means it will brighten to Mg. 3.3 while moving across Sextans and Cancer at a speed of 42 degrees an hour. This means you will be able to see this chunk of metal move across the sky four clenched fists in about an hour. It will be like watching a very slow satellite move across the sky. Wow that will be something to see! We will get our best view while the asteroid is still on its way in at 7th MG., but for an event like this you may want to make early reservations for a trip to Europe, Africa or Asia for a ringside seat for the best view as at that max time the asteroid will appear up to 2 arc seconds wide making it barely resolvable in a backyard telescope. It will move slowly across your telescopes view or at Mg. 3.3 you can just watch it with your eyes move slowly across the sky. What a sight on April 13, 2029. If the asteroid had impacted Earth the energy would have been about 850 megatons, 15 times more powerful than the largest hydrogen bomb ever tested and about 60 times

more powerful than the Tunguska explosion over Siberia in 1908. Whew we are lucky... at least until another asteroid or comet comes in for a closer view of Earth!

Feb.15th if you are out observing early turn yourself toward the NNE at 7:29p. m. and catch a bright Iridium Flare about 44 degrees above the horizon. Its azimuth will be 23 degrees. For those not familiar with azimuth, that's the location it will flare at. 0 degrees is due north, 90 degrees is due East, 180 degrees is due South, 270 degrees is due West. So 23 degrees would be a little more than two clenched fists held out at arms length from due north to your right and a little more than 4 clenched fists in altitude from the horizon. This will put your eyes in the approximate location of the flare. The flare is suppose to become as bright as -8mg depending on your location in metro Tulsa. If you have never seen an Iridium Flare, this will be a good one to observe.

That's it from my corner this month, be sure and make plans to attend this year's Messier Marathon March 12th. Keep your eyes to the sky.



Photo by David Stine showing Comet Machholz above the Pleiades and the International Space Station streaking across. This was about a 15 second exposure on 800 Fuji film.

ASTRONOMY EVENTS

Tentatively scheduled dates below are bracketed with question marks. The number of persons expected is in parenthesis.

EVENTS AT RMCC OBSERVATORY:

FEB

- ? 14 Mon 05:00 Boy Scout Troop 85 (20) ?
- 17 Thu 05:00 Springdale Elementary School (50)
- 20 Sun 05:30 Claremore Adventist School (20)

MAR

- 04 Fri 05:30 Club Star Party
- ? 05 Sat 05:30 Back Up for 03/04 ?
- 12 Sat 03:00 Boy Scout Troop 193 (20 will camp)
- 14 Mon 06:00 Calvery Light Christian Academy (25)

APR

- 08 07:30 Fri 07:30 Club Star Party
- ? 05 Sat 07:30 Back Up for 04/08 ?

EVENTS AWAY FROM OBSERVATORY

FEB

- 18 Fri 07:30 Regular Club Meeting at TU Keplinger Hall
- 20 sun 07:30 Claremore Adventist School

MAR

- 11 Fri 08:00 Southpark Christian School (100) At the School on 41st St and Hwy 169
- 12 Sat ??:?? TUSA Messier Marathon at the TUSA Club House near Council Hill
- 25 Fri 07:30 Regular Club Meeting at TU Keplinger Hall

APR

- 22 Fri 07:30 Regular Club Meeting at TU Keplinger Hall

Gerry Andries
 Observatory Group Director
 Astronomy Club of Tulsa

Lands Tidbits

By John Land

Welcome to our new members: Lisa Malone, Jason Keesler

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.

ON LINE Club Memberships and Renewals: Club memberships are \$25 per year for adults and \$15 per year for students. 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

Sky & Telescope is \$33 / yr www.skyandtelescope.com Sky and Telescope also offers a 10% discount on their products.

NIGHT SKY is \$18 / yr. An exciting new bi-monthly magazine for beginning or casual astronomers. <http://nightskymag.com/> The club has coupons for a free issue

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 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. The spam filters may DELETE emails without clear identification!

Astronomy Club of Tulsa

Membership Application/Renewal Form

PLEASE PRINT

Name: _____

Phone: (918) _____ - _____

Address:

City / State / Zip _____ / ___ OK ___ / _____

E-mail address - print clearly

Check Lines below : For faster economical delivery you are notified by email when the Club newsletter is posted on the web. Email saves the club mailing expenses.

I prefer to receive my newsletter by postal mail also

Notify me by E-mail of late breaking Astronomy Events

New Adult Membership (\$25) Student Membership (\$15)

Adult Membership Renewal (\$25) Student Member Renewal (\$15)

Sky & Telescope Subscription (\$33) / year also includes 10% discount on most Sky & Tel products

Astronomy Subscription (\$29) / year (\$55) / two years

* Magazine rates may change / prices available with membership only. The Student discount is intend for persons whose primary focus is education and not employed full time.

Make check payable to:

**Astronomy Club of Tulsa
25209 E. 62nd St
Broken Arrow, OK 74014**

Email at membership@astrotulsa.com - or call 918-357-1759

How did you hear of the Astronomy Club of Tulsa?

How long have you been interested or active in astronomy?

Do you have a telescope? _____ Type

Have you been a member of other astronomy clubs? _____

Where / when

What astronomy club activities would you like to participate in?

Astronomy Club of Tulsa membership (\$25/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.

OFFICERS

President:

Craig Davis
918.252.1781

Vice-President:

Tim Davis
918.665.8134

Treasure:

John Land
918.357.1759

Secretary:

Teresa Kincannon
918.637.1477

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:

Gerry Andries—369-3320

RMCC Facility Manager:

Craig Davis—252-1781

Membership Chairman:

John Land—357-1759

Observing Chairman:

David Stine—834-1310

New Members:

Denny Mishler—274-4772

Newsletter Editor:

Richie Shroff—835-3565

Webmaster:

Tom McDonough—665-1853

Astronomy Club of Tulsa

918.688.MARS (6277)

<http://www.AstroTulsa.com>

ASTRONOMY CLUB OF TULSA
P.O. BOX 470611
TULSA OK 74147-0611
ADDRESS CORRECTION REQUESTED