



Astronomy Club of Tulsa

OBSERVER

November 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 November 2005 at 6:00 P.M.

Where



Ryan's Family Steak House

8110 E. 74th Place S.

Annual Dinner Meeting and Club Elections

After dinner we will start our meeting and hold our election of Club Officers and Board Members at Large. You may nominate a club member for any position but please be sure that you have spoken to them and they agreed to being nominated.

President's Message

Craig Davis

With this year drawing to a close, I'd like to wish everyone an early Happy Thanksgiving, Merry Christmas and Happy New Year!

A new year will appear before we know it and from that day forward we shall continue down our individual long roads of life. From the dawning of that day, I'm sure each and every one of us will continue with a more self committed determination to learn and gain which we had not yet captured during the year which we have just left behind.

As we look back on the year that is drifting away from us, there has been so much that has occurred, good, bad or indifferent. Even so, it is from this that all of us grow in our own personal directions. Standby, the up coming New Year will reward all of us better than we may have possibly ever considered.

I have truly enjoyed this year as well as the year before. But my time comes to an end as your club President. With this I wish to thank all of you for not only your support but even more so for all that I have gained from you. My

decisions and actions over the past two years may have at times been very trying. As President, the club and its progressive overall benefit and well being, shall always remain the prime focus – always. With that I'd like to wish all of you the best and yes, one last thing. . .

We are planets to each other,
Drifting in our orbits
To a brief eclipse.
Each of us a world apart,
Alone and yet together,
Like two passing ships.

- Neil Peart

TREASURER REPORT

By John Land

	Club Assets
Checking Account	\$ 657.36
Savings account	\$ 2,849.95
Mutual funds investments	\$ 12,042.92
Total Club Assets	\$ 15,550.23



A special fund has been set up to accept tax deductible donations toward the purchase of the club's project of purchasing a new telescope. If you would like to make a donation to the project. Contact our Club Treasurer: John Land
Telescope Donations Fund \$ 50.00

CLUB MEMBERSHIP 103 Long TERM MEMBERS 39 NEW MEMBERS Total 142 MEMBERS

Recent New Members: Allan Harkness, Jack Lee, Richard Walker, Kenneth Gillespie, Steve Trammell, Howard Cribbs, Deni Leonard, Sheldon Padawer, Carol Creason, Collin McMillan, Kate McGee, David Ballard, Jan Hodges

Lands Tidbits

By John Land

Put a bundle of Starlight under your Christmas tree.

2006 Deep Space Mysteries Wall Calendars from Astronomy magazine are here. Twelve stunning Astronomy photos plus all the major astronomy events for the year. As club members you can get yours for \$ 8.00 each a 38% discount over the cover price. Contact John Land to reserve yours

2006 Royal Canadian Observers Handbooks - will be available this year at \$18.00 each. We only have 5 copies left and will sell them until they run out. Those who pre-reserved copies need to be ready to pay for them at the meeting.

DON'T LET YOUR MEMBERSHIP 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 and magazine rates on membership form.

You may also renew magazine subscriptions through the club for substantial discounts.

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.

ON LINE 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.

(NEW 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.

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) Or go to the club website and Fill out an online form or just click on John Land and send an email. Please leave a clear subject line and message with your name, phone number, your question - along with address or



David's ASTRO CORNER

By David Stine

Mars Watch II is Friday and Saturday Nov. 11-12 at John Oxley Polo Grounds at Mohawk Park. It will start at 6:30p.m. to 11p.m. each night or until the crowd leaves. Everyone is invited to bring their scopes and help out this weekend. The last time we did this in 2003 we had over 5,000 people in two nights. I don't expect that large of a crowd this year but we should have a good crowd. All the TV stations are aware of the event and you will probably start hearing some talk during the weather about the event. Here is the plan for Friday and Saturday>

Friday Nov. 11th 3p.m. Begin set-up of fencing for viewing area
5p.m.-6:30p.m. - Members set their telescopes and equipment
6:30p.m. - 11p.m. - Open to Public.

Rocky and Chuck will have their RV's overnight so if you want to leave any equipment they have volunteered to watch out for it.

Saturday Nov. 12th 5p.m.-6:30p.m. - Members set their telescopes and equipment
6:30p.m.-11p.m. - Open to Public

Volunteers without equipment need to see Teresa Kincannon when you get there to see where you are needed.

Anyone wishing to help set up the viewing area are welcomed. Steve Chapman has the plan for the area and is in charge of the set-up. We will begin as mentioned earlier at 3p.m. for any one wishing to help.

We can't all be looking at Mars, so here are a few targets that will be viewable and bright enough under a $\frac{3}{4}$ Moon that will be interesting to the public:

- Western Sky - Venus, Coat Hanger in Vulpecula, Alberio in Cygnus, M13 and
- M92 globulars in Hercules, M57 Ring Nebula
- Eastern Sky - Mars, Moon, Double Cluster, Perseus Star Cluster near the star
- Mirphak, M34 star cluster in Perseus, M37,36,38 star clusters in Auriga, M2
- And M15 clusters Pegasus, M45 Pleiades, Hyades cluster, Andromeda Galaxy,
- M35 in Gemini, and late M42 Orion Nebula.

Other possible sky activities. May see a few Taurids and early Leonids meteors. For those of us that are there by 6p.m., there will be a fairly bright Iridium Flare at 6:19p.m. in the NE at 35 degree azimuth and 56 degrees in elevation. Should flare somewhere between -2 and -8 mg. for Friday evening. Unfortunately no ISS passes either night.

Use of Lasers should be minimum and not used at all when approaching airplanes are visible.

Looking forward to seeing everyone Friday and Saturday.

If you need to get a hold of me on Friday or Saturday call my cell phone 810-2243.

David Stine
dstine@exposquare.com

NIGHT SKY NETWORK MARS 2005

By Jerry Mullennix

Well we are nearly at the end of another year and rolling into winter. With the warm weather patterns we have had it almost seems like mild summer nights for viewing, but I fear we will have to pay for the great nights we have had in the last month or so. At the time of this writing we have already had two Star Parties this month with plenty of club activities left for this busy November. This weekend we host our Mars Watch 2005 at Mohawk Park and with a bit of luck the weather will continue to be good.

I have to say I really enjoyed seeing all of the hearty souls that managed to make the unprecedented double star party at our observatory over the last two weeks. If you weren't there then you missed out on Steve Chapman's Pentax giveaway - he will announce the winner of all of his Pentax eyepieces at the club dinner. KC sold raffle tickets for her 13" Dob and two years paid subscription to Sky and Telescope. If you were there then you know none of this is true. However, you did miss two great evenings of viewing. For some of us this ended up being four nights over two weeks and for Steve and me a few others during the week. The nights were far from perfect and it took a bit of coaxing to get just the right view of Mars. More than anything else the wind was the biggest problem. We all did have some great discussions of astronomical events and saw a lot of very nice meteors shooting from Taurus the Bull. (See David Steins last Astro Alert) If you have tried to view Mars and have not had much luck then you are not alone. Even though Mars has been known since prehistoric times and been studied with ground-based observatories with very large telescopes it is still a difficult target as it is just too small. Mars, frequently on good viewing nights, hides her features with dust storms - such as now - and she is very temperamental from one night to the next as it relates to eyepieces, filters and scope choices; what worked well last night may have little or no success tonight. Rick Ryan, Steve Chapman and I seemed to have the best luck with a variable polarizing filter and/or a number 21 orange filter. There were nights that nothing seemed to work well and there were nights that everything we tried produced some level of success. The point I am trying to make here is that if you are serious about seeing Mars over the next month or so then you are going to have make several attempts and you are going to have difficulty reproducing your effects from one night to the next.

Here are a few facts about Mars:

Orbit: 227,940,000 km (1.52 AU) from the Sun

Diameter: 6,794 km

Mass: 6.4219e23 kg

The name Mars from the Romans (Greek: Ares) was the god of War. The name was probably attached as a result of its red color and is often referred to as the Red Planet. The month of March derives from Mars and Mars has been the favorite of more Science Fiction novels than any other place in space. As planets go it may be the only place other than Earth in our solar system that has the potential to be inhabited by humans.

Contrary to popular belief, Mars is very forbidding and not as Earth like as some would have us believe. The atmosphere is less than 1% of the earth's and temperatures vary wildly from almost 80F at the equator to -258F at the poles in winter months. Even in the summer when you have a daytime temperature of 80 degrees your nights will dip well below 0. If this does not frighten you then you should be aware that dust storms can appear with little or no warning and can consume the entire planet for months at a time with winds in excess of 200 mph. Should the previous not frighten you off and you still want to go then you will be rewarded with a couple of very nice features. Olympus Mons resides on Mars and is the largest volcano in the solar system rising 75,000 feet (16 miles) from the surface, which is more than 3 times the height of Mt. Everest. Valles Marineris is a canyon system that runs for almost 4,000 miles across the face of the planet. It is eight miles deep and is widely believed by geologists to have been created from the rise of the four volcanos to the north of the valley. (One of which is Olympus Mons) This type of rift is direct evidence that Mars has no plate tectonics as on earth and as the volcano's rise it latterly rips the planet apart. Mars is the one planet that you could research and write volumes of information as we know more about Mars than anywhere else in the solar system. We are learning more every day. If you would like to read more about Mars please visit nasa.gov and search Mars.

Think you are pretty space savvy? In keeping with all of the Mars hype I thought I would coin a new term about space myths but I could not think of any. Even so you may find the following quiz entertaining and

fun.

Science Fact or Fiction Quiz

The following is from Nasa's Night Sky Network and is reprinted with the permission of NASA and JPL.

Here's a short quiz to test your knowledge of what's real and what isn't in the area of space travel and the search for extraterrestrial life.

Are we alone?

1. We have strong evidence that that our solar system is not the only one; we know there are many other Suns with planets orbiting them.

SCIENCE FACT.

Improved telescopes and detectors have led to the detection of dozens of new planetary systems within the past decade, including several systems containing multiple planets.

One giant leap for bug-kind

2. Some organisms can survive direct exposure to the vacuum of space for years.

SCIENCE FACT.

A small colony of the common bacteria *Streptococcus mitis* stowed away for nearly three years aboard Surveyor 3, an unmanned spacecraft that landed on the moon in 1967. The crew of Apollo 12 recovered the organisms and brought them back to Earth under sterile conditions. This unplanned experiment proved that certain microorganisms can survive years of radiation exposure, the vacuum of space and deep-freeze, without any nutrient, water or energy source.

Hot real estate

3. Organisms have been found living happily in scalding water with temperatures as high as 235 degrees F.

SCIENCE FACT.

More than 50 heat-loving microorganisms, or hyperthermophiles, have been found thriving at very high temperatures in such locations as hot springs in Wyoming's Yellowstone National Park and on the walls of deep-sea hydrothermal vents. Some of these species

multiply best at 221 degrees F, and can reproduce at up to 235 degrees F.

Has E.T. already phoned home?

4. We now have evidence that some form of life exists beyond Earth, at least in primitive form.

SCIENCE FICTION.

While many scientists speculate that extraterrestrial life exists, so far there is no conclusive evidence to prove it. Future missions to Mars, the Jovian moon Europa and future space telescopes such as the Terrestrial Planet Finder will search for definitive answers to this ageless question.

To infinity, and beyond!

5. We currently have the technology necessary to send astronauts to another star system within a reasonable time span. The only problem is that such a mission would be overwhelmingly expensive.

SCIENCE FICTION.

Even the unmanned Voyager spacecraft, which left our solar system years ago at a breathtaking 37,000 miles per hour, would take 76,000 years to reach the nearest star. Because the distances involved are so vast, interstellar travel to another star within a practical timescale would require, among other things, the ability to move a vehicle at or near the speed of light. This is beyond the reach of today's spacecraft -- regardless of funding.

Fellowship of the rings

6. All of the gas giant planets in our solar system (Jupiter, Saturn, Uranus and Neptune) have rings.

SCIENCE FACT.

Saturn's rings are the most pronounced and visible, but they aren't the only ones.

May the force be with you

7. In the "Star Wars" films, the Imperial TIE Fighters are propelled by ion engines (TIE stands for Twin Ion Engine). While these spacecraft are fictional, real ion engines power some of today's spacecraft.

SCIENCE FACT.

Ion propulsion has long been a staple of science fiction novels, but in recent years it has been successfully tested on a number of unmanned spacecraft, most notably NASA's Deep Space 1. Launched in 1998, Deep Space 1 rendezvoused with a distant asteroid and then with a comet, proving that ion propulsion could be used for interplanetary travel.

A question of gravity

8. There is no gravity in deep space.

SCIENCE FICTION.

If this were true, the moon would float away from the Earth, and our entire solar system would drift apart. While it's true that gravity gets weaker with distance, it can never be escaped completely, no matter how far you travel in space. Astronauts appear to experience "zero-gravity" because they are in continuous free-fall around the Earth.

Beam me up, Scotty!

9. The basic premise of teleportation -- made famous in TV's "Star Trek" -- is theoretically sound. In fact, scientists have already teleported the quantum state of individual atoms from one location to another.

SCIENCE FACT.

As early as the late 1990s, scientists proved they could teleport data using photons, but the photons were absorbed by whatever surface they struck. More recently, physicists at the University of Innsbruck in Austria and at the National Institute of Standards and Technology in Boulder, Colorado, for the first time teleported individual atoms using the principle of quantum entanglement. Experts say this technology eventually could enable the invention of super fast "quantum computers." But the bad news, at least for sci-fi fans, is that experts don't foresee being able to teleport people in this manner.

Good day, Suns-shine

10. Tatooine, Luke Skywalker's home planet in the "Star Wars" films, has two Suns -- what astronomers would call a binary star system. Scientists have discovered recently that planets really can form within such systems.

SCIENCE FACT.

Double-stars, or binary systems, are common in our Milky Way galaxy. Among the more than 100 new planets discovered in recent years, some have been found in binary systems, including 16 Cygni B and 55 Cancri A. (But so far, no one has found a habitable planet like Luke Skywalker's Tatooine.)





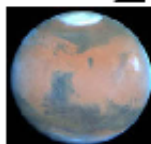
Oxley Nature Center



Tulsa Air And Space Museum

**PRESS
RELEASE**

MarsWatch 2005



**JOHN OXLEY
POLO GROUNDS
MOHAWK PARK**

**NOVEMBER
11-12, 2005
6:30 - 11:00PM**

On October 30th Mars will reach its closest approach to Earth until 2018. Several weeks on either side of this date, Mars will be a beacon in the sky outshining everything except the Moon. Mars is the only planet on which you can actually see surface details.

The Astronomy Club of Tulsa, Oxley Nature Center, and Tulsa Air And Space Museum will be co-hosting a public Mars Watch 2005 at the John Oxley Polo Grounds in Mohawk Park on November 11th and 12th from 6:30PM until 11:00PM. This will be a great chance for the public to see Mars up close and view the dark terrain, white polar caps, possible dust storms, volcanoes, and other features the planet will reveal.

The Moon and many deep sky objects such as galaxies and star clusters will also be visible.

Dozens of telescopes will be on hand for people to look through, and handouts on Mars, Astronomy Club of Tulsa, Oxley Nature Center will be available.

Please visit the Tulsa Air and Space Museum for its grand opening November 12-20. Each day will be packed with special events and activities. For a complete listing of daily events, please visit the TASM website after November 1st.

For more details or interest in covering this event please contact
David Stine (918) 810-2243 or Donna Horton (918) 669-6644

Weather Note: Each day of the event, a decision to cancel will be made by 5:00PM. Stay tuned to the news or website for latest information.

Suggested Admission \$2/person

www.oxleynaturecenter.org

www.astrotulsa.com

www.tulsaairandspacemuseum.com



E-mail Address: info@astrotulsa.com



The Astronomy Club of Tulsa is a non-profit organization dedicated to the enrichment of astronomy/science education in Tulsa and surrounding communities.

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. Of course if you do not have email we can mail you a copy of the monthly newsletter.

New Membership Renewal Membership

Adult Membership (\$35) includes Astronomical League membership.
See <http://astroleague.org/> for benefits of being a League Member.

Student Member (\$20)* includes Astronomical League membership.

Student Member only(\$15)* - without League membership.

* Student - Persons 25 or younger actively taking courses at college, trade school, high school, or below.

* Adult Student - Persons over 25 may join at the student rate for one year if enrolled in an astronomy course at an area college.

Check Lines below for YES

I would prefer to receive E-mail notification when club newsletter is posted to the web.
Notice of club events and newsletters are usually sent by email.
This helps assure you will be informed of late breaking news.
I choose to receive my newsletter by E-mail ONLY instead of postal mail.

Check here if you also require a postal copy of the monthly newsletter.
Note: Using email newsletter saves the club about \$5 per year

Magazine subscriptions: Magazine rates may change. Prices available with membership only.

Sky & Telescope Subscription (\$33) / year _____ Renewal Include Subscription Number. Also includes 10% discount on most Sky & Telescope products.

Astronomy Subscription (\$ 34) / year (\$ 60) / two years _____ Renewal Include Subscription Number.

NightSky for 6 issues for \$18 see www.NightSkymag.com Issues come out bi-Monthly This is an excellent choice for the novice astronomer and youth just starting out in astronomy.

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

Or go to the club website and fill out an online form or just click on John Land and send an email.

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 _____

What astronomy club activities would you like to participate in?

Have you been a member of other astronomy clubs? _____

Where / when _____

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.

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

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:

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