Photo: A View Through a Tree of an Eclipsed Moon, Total Lunar Eclipse Oct. 8, 2014, by Tamara Green.

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UPCOMING EVENTS:

General Meeting Fri, Oct 3 Jenks HS Planetarium 7:00 PM
Sidewalk Astronomy Sat, Oct 4 Bass Pro 8:00 PM
Public Star Party Sat, Oct 18 ACT Observatory 7:00 PM
Solar Eclipse Viewing Thurs, Oct 23 Jenks HS Planetarium 4:30 PM
Members’ Night Fri, Oct 24 ACT Observatory 7:00 PM
Back-Up Night Sat, Oct 25 ACT Observatory 7:00 PM
Halloween Fri, Oct 31
Dinner Meeting Fri, Nov 7 TASM Planetarium 6:30 PM

(Please Note: This event is for Club members and their families only please.)

Sidewalk Astronomy Sat, Nov 8 Bass Pro 6:00 PM
Public Star Party Sat, Nov 15 ACT Observatory 7:00 PM
Members’ Night Fri, Nov 21 ACT Observatory 7:00 PM
Back-Up Night Sat, Nov 22 ACT Observatory 7:00 PM
Thanksgiving Day Thurs, Nov 27
SPECIAL ASTRO ALERT!!!!
PARTIAL SOLAR ECLIPSE!!!
SPECIAL VIEWING EVENT AT JENKS HIGH SCHOOL PLANETARIUM
105 E. B ST., JENKS, OK. Doors open at 4:30 PM.

(For directions and maps, please see the “Where We Meet” section on Page 25 of this newsletter.)

Thursday, October 23, 2014

Partial Eclipse begins at 4:42 PM, when the Moon’s shadow touches the Sun’s edge.
Maximum will be at 5:49 PM, when the Moon’s shadow is closest to the center of the Sun.
Sunset will be at 6:36 PM, before the Eclipse ends, unfortunately.
Partial Eclipse ends at 6:49 PM. Sun will be below the horizon.

On the afternoon of October 23rd, most of Canada, the United States and Mexico will be treated to this spectacular event! Members of our Club will be at the Jenks High School Planetarium with solar telescopes and telescopes with solar filters to show the sun safely to Club members and guests. This event is open to the public.

Any Club member wishing to volunteer to help with this event please contact a club officer, all of whom are listed on Page 27 of this newsletter.

We hope to see you there!
AN IMPORTANT ANNOUNCEMENT!!

It’s almost time for the election of Officers and Board Members-At-Large for next year!

Elections will take place at the Annual Dinner Meeting, which will be on Friday, November 7, 2014 at the Tulsa Air and Space Museum Planetarium. Festivities will begin at 6:30 PM (please see flyer on next page).

So far, those who are running are as follows:

Richard Brady for President
The Office of Vice President is open
Tamara Green for Secretary
Tim Davis for Treasurer
Mandy Nothnagel for Board
Skip Whitehurst for Board

If you are interested in an Office or a Board position, or would like to nominate someone, please contact Secretary Tamara Green at astronomer.misstamara@yahoo.com and she will put your name (or your nominee’s name) on the ballot.

PLEASE HAVE YOUR NAME OR NOMINEE’S NAME AND THE OFFICE OR BOARD POSITION THAT YOU OR YOUR NOMINEE ARE INTERESTED IN TO TAMARA BY NO LATER THAN SATURDAY, NOVEMBER 1 SO SHE CAN HAVE THE BALLOT COMPLETED AND READY TO PRINT. Thank You!
The Astronomy Club of Tulsa Welcomes All Members and their Families to Our

ANNUAL DINNER MEETING

Friday, November 7, 2014

6:30 PM

Tulsa Air and Space Museum Planetarium

Cost will be $12 per person. Please RSVP with Treasurer Tim Davis

Festivities will include:

ELECTION OF OFFICERS AND BOARD MEMBERS-AT-LARGE FOR 2015

A fun Italian theme (much like last year’s Greek theme), with presentations on Italian contributions to Astronomy and wonderful catered food! (Caterer To Be Announced)

A Silent Auction

Group Photo

And More!

We hope to see you there!
Take the Future of Amateur Astronomers Survey

The Night Sky Network is doing a new survey of amateur astronomers located in the United States. We are attempting to understand the landscape of educational outreach performed by astronomy clubs and assess the needs of the amateur astronomy community for the next 5 years. We want to hear your voice. Please let us know what your needs are and how we can better help you and your clubs by taking our survey, located here: http://bit.ly/2014astrosurvey

Pass this announcement along to any other persons or organizations that would have an interest in this survey as well. Thank you all!

October 4 - Astronomy Day Part 2. Astronomy Day is an annual event intended to provide a means of interaction between the general public and various astronomy enthusiasts, groups and professionals. The theme of Astronomy Day is "Bringing Astronomy to the People," and on this day astronomy and stargazing clubs and other organizations around the world will plan special events. You can find out about special local events by contacting your local astronomy club or planetarium. You can also find more about Astronomy Day by checking the Web site for the Astronomical League.
Hello, everyone!

Can you believe another year has already passed? It's already time for the Annual Banquet! I am sure you will love what we have planned! This year's theme is Italy- we will be spotlighting Italy's contribution's to astronomy and cater in some delicious Italian food. As we did last year, we will also have the silent auction, officer elections, and discuss this year's achievements. If you have anything you would like to donate for the silent auction or information to contribute about Italy's contributions to Astronomy, we would greatly appreciate it! Please contact me at ACTGroupScheduling@gmail.com and we can make arrangements.

Because I have been so busy with the last few months (I really thought I would be be so much less busy after graduation!), I have not yet decided as to whether I will run for president again next year. I want to make sure that if I do run again, I am able to give the Club and position the attention they deserve. I have truly enjoyed working with everyone on the Board and in the club. Even if I decide not to run, I will definitely stay involved and on the Board. You guys can't get rid of me that easily!

Finally, I want to thank everyone for their support and all of their help over the last year, especially our Vice President, Richard Brady, the Board, and all of our faithful and reliable volunteers. It's all of you that make this club continue and thrive year after year!

I hope everyone has enjoyed our events and activities this year and that you continue to enjoy them next year! As always, we have great plans in the works!

Have a safe, happy, clear-skied Halloween!

Mandy Nothnagel
Astronomy Club of Tulsa President, 2014

ACTPres@astrotulsa.com
Astronomy Club of Tulsa: 135 members, including 48 new members in 2014.

Welcome to our new members this month: Norm Hughes, Dan Zielinski, Wayne Cates and Jerry Cassity.

Club Accounts as of Oct 12, 2014:
Checking: $3,236.33;  Savings: $3,771.90; Investment accounts: $18,523.62 (Value Fluctuates with Market); PayPal: $0.00

The club now has PayPal available for you to start or renew memberships and subscriptions using your credit or debit cards. Fill out the registration form at http://astrotulsa.com/page.aspx?pageid=16 Click Submit and you will be given the choice of either mailing in your dues with a check or using PayPal which accepts most major credit cards. A modest processing fee is added to PayPal transactions.

You may also renew your membership or join at one of our club events using your credit card by seeing one of our officers. We can take payments with the Square card reader now. A small fee is also added on to these transactions.

ALSO NOTE: For our current members who are renewing their memberships, you can now go to a new link on the website to start your renewal process. On the home page, hover over the “Member” tab on the ribbon menu near the top of the page. Then select the “Membership Renewal” link and this will take to a page to fill out your information. Fill this out, submit it, then pay your dues by whatever method you choose.

NEWS NOTE: Both Sky & Telescope and Astronomy have free Digital subscriptions available with print subscriptions, or Digital subscriptions may be purchased separately. Contact their websites for details.

Membership rates for 2014 are as follows:

Adults: $45.00 per year, includes Astronomical League Membership.

Sr. Adult: $35.00 per year for those 65 or older, includes Astro League Membership.

Students: $30.00 with League membership; Students: $25.00 without League membership.

Additional Family membership: $20.00 with voting rights and League membership; $15.00 with voting rights but without 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.


Magazine Subscriptions: If your magazines are coming up for renewal, try to save the mailing label or renewal form you get in the mail. Forms are available on the club website.

Astronomy is $34.00 for 1 year, or $60.00 for 2 years. www.astronomy.com To get the club discount you must go through the club group rate.

Sky & Telescope is $33.00 per year. www.skyandtelescope.com Sky & Telescope also offers a 10% discount on their products.

Note: You may renew your Sky & Telescope subscription directly by calling the number on the renewal form, be sure to ask for the club rate.

NEW SUBSCRIPTIONS must still be sent to the club.
The *Annual Astronomy Club Dinner* will be held at Tulsa Air & Space Museum, Friday Nov 7 starting at 6:30 PM.

Tickets are $12.00 per person.

Spouses and Family of members welcome.

Please RSVP before Nov 3 so we can get a head count.

Go to [http://astrotulsa.com/Contact.aspx](http://astrotulsa.com/Contact.aspx), Click on Treasurer. In the comments section specify the number of people attending counting yourself.

### 2015 Wall Calendar

The 2015 Astronomy Magazine Wall Calendars are here and are now available. If you would like to reserve one, send me an email at act_tres@astrotulsa.com, or call me at 918-665-8134 and let me know how many you would like. Otherwise, they will be available on a first come, first served basis at our upcoming events. We have 50 available this year for $10.00 each, cash, check or credit cards accepted. That is a 23% savings off the regular retail price.

Get yours while they last!

Tim Davis

ACT Treasurer
Program: Club members’ pictures from Okie-Tex Star Party 2014

VP Richard called the meeting to order at 7:11 PM and welcomed members and guests.

He then discussed upcoming events, including the Annual Dinner Meeting at TASM, which will be on Friday, November 7 at 6:30 PM. After that, he announced that the Club has a chance to be Beta testers for the Jenks HS Planetarium programs, called “Compass Calendar Clock”. It will be on Friday, December 7 at 7:00 PM. Richard then turned the floor over to Tamara, who gave a presentation on her Okie-Tex pictures.

Following Tamara’s presentation, new members Roger and Anna shared their OTSP pictures.

Following that, John discussed the upcoming eclipses this month. The total lunar eclipse on Tuesday, October 8 begins at 4:15 AM, totality at 5:25 AM, totality ends at 6:24 AM. The partial solar eclipse on Thursday, October 23 begins at 4:43 PM, ends 6:49 PM. Maximum will be at 5:43 PM and sunset will be at 6:35 PM.

No other officers or staff reports were given.

Richard adjourned the meeting.
Photos Of Some Fun Stuff
by Tamara Green
For your viewing pleasure, here are a few photos that I took at Okie-Tex and of the Lunar Eclipse! For the whole Photoset, see the Club’s Facebook page!
These images were taken by a former club president, Frank Newby, from his suburban home in east Broken Arrow, using an 8 inch f 3.9 Astrograph.

Comet Jacques C-2014 E2  Taken on 9-18-14

Comet Jacques was easily visible throughout August to Mid-September. For several weeks it swept over the Earth’s northern sky from Cassiopeia through Cygnus and into Vulpecula.

On the 18th it was a couple of degrees north of the “Coat hanger” asterism.

This was a series of 12 shots but only 11 were usable. Each shot was 30 sec. @ ISO 800 on a Canon T3i unmodified. The first shot started 9-18-14 at 9:57:49 pm and the last was 9-18-14 at 10:15:59. Total exposure time was 5min. 30 sec. Because each shot was 30 sec. I’ve got 30 sec. worth of coma movement relative to the stars for each exposure with a total movement of 18 min. 10 sec. for the duration of the shots.

They were shot in RAW format at a resolution of 5184 x 3456 thru an 8 inch f 3.9 astrograph using a parrcor 2 corrector with a broadband filter (Light pollution) which gave it a focal ratio of f 4.5. This gives my FOV at just a little over 1 degree.

Software - Canon DPP (Digital Photo Professional), Photoshop CS2 version 9, ImagePlus version 5.01.

Pumpkin Nebula

A good image for Halloween. NGC6818 (looks like a pumpkin).

Planetary only 15 arc sec. across. About 1/3 the apparent size of Jupiter
This article is meant to toot my project team’s horn a little bit. I designed and was the project manager for the little facility you see behind the sign to the Chaco Canyon historical Park. To quote the NPS website:

“The park's natural nighttime darkness, commitment to reducing light pollution, and ongoing public outreach have (sic) led to its certification as an International Dark Sky Park by the International Dark-Sky Association (IDA). Chaco is the fourth unit in the National Park System to earn this distinction. By receiving this designation at the Gold-tier level, Chaco rates as one of the best places in the country to experience and enjoy natural darkness.”

When I first began working in this area in December, we were unable to pipe our associated natural gas from oil production to market, due to the lack of infrastructure in the area. Since then we have been working tirelessly to get our flares put out and get the gas to market for a number of reasons. For our hobby, the biggest problem is the illumination caused by the flares burning night. With an IDA site nearby, I took it as a personal matter to get the job done. I’m happy to report that all of our flares have been extinguished.

As things continue to grow there, we’ve added four more sites similar to this, and I will be visiting the area to kickoff construction of an oil delivery facility right after Okie-Tex to lessen the truck traffic. Of course, there will be times when we still have to flare occasionally for short periods. And of course we are not the only operator in the area. But it’s nice to know that what I do for a living is contributing to the conservation of another precious resource, our dark sky at night.
If you are out in the Four Corners area, on vacation, as an extension of a trip to Okie-Tex, or for any reason, go see this fascinating site **during the day for an example of our Native American culture. Then**, stick around for the dark skies at night in the designated area (be sure and tell the ranger), or visit during one of the outreach nights put on by the Albuquerque Astronomical Society (TAAS). See [http://www.nps.gov/chcu/planyourvisit/nightsky.htm](http://www.nps.gov/chcu/planyourvisit/nightsky.htm) for more details.

*Note: all pictures in article by me, much better ones at the website.*

The great kiva in the plaza of Chetro Ketl
NITELOG - Norway InTErurban Local Observing Group
by Tom Hoffelder

This is the (2nd time for the) third installment of all the M's in 12 months and the H 400's in 24. Prior to starting that, each month I listed objects in a two hour RA section of the sky that was well placed for viewing at the end of twilight, but that doesn't work with the current project because so many of the objects are in the spring skies. That is why this month's list covers nearly four hours and for awhile we will be running a bit "ahead of the sky."

OBSERVING: Summer is over in Maine and the monthly observing schedule is back in swing at the Twitchell Observatory! Monday Oct 6th at 7 PM!!! (Note that you have to like being under a nearly full moon for this one.)

COMETS: There's three out there I would normally include, but I'm interested in only one of them, and really only for two days when it almost hits Mars: Siding Spring, 2013A1. (What are the odds I'll have clear skies?) As indicated by the two pertinent attached files, the two dates are the 18th and 19th, when the two objects will be separated by less than one degree. (I probably mentioned before that in 40 years of observing 132 comets, there has been ONLY ONE single incidence of seeing a comet and a planet in a one degree field of view.) As you know, Mars is approaching conjunction so it will be low on the horizon at the end of twilight, which means not only a brief viewing opportunity, but the comet has to be relatively bright to be seen at all. Mag estimates are all over the place - I'm just hoping the one that says 9th is close. Note that the comet/Mars spreadsheet shows that the farther south you are, the better your chances, which seems to be a common theme with comets this century.

PLANETS: Other than Mars as noted above, all I'm following is Uranus and Neptune, and a good way to follow them is S&T's chart: http://d366w3m5tf0813.cloudfront.net/wp-content/uploads/WEB_Uranus_Neptune_2014.pdf

Both are easy to find due to their proximity to relatively bright stars, especially Neptune, being a degree or less from sigma Aqr. That assumes you can see sigma in your sky, which I could at CSP, which is why some of you saw the planet Saturday night in the C14. (Both planets actually.)

STARS: Two carbons, three doubles (one being a rather famous nearby pair of red dwarfs), a triple and even a quad.

THE GOOD STUFF: Eight Messier objects (2 OC's, 1 planetary and 5 GX's) and sixteen H400's, mostly GX's and OC's, three of which double as M's. The one object that is not a Herschel or Messier happens to be one of my favorites, the Helix planetary. An O3 filter is needed to see it well, or maybe at all depending on conditions. (Some of you also saw it at CSP in the C14.)
NITELOG, Ct’d.

QUESTIONS: As always, questions and comments are welcome!

tom hoffelder
rocksnstars@gmail.com

Come with me now, Pilgrim of the stars,
For our time is upon us and our eyes
Shall see the far country
And the shining cities of infinity ~ Robert Burnham, Jr.

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Where does the sun’s energy come from?

Every 1.5 millions of a second, the sun releases more energy than all humans consume in an entire year. Its heat influences the environments of all the planets, dwarf planets, moons, asteroids, and comets in our solar system.

And that light travels far out into the cosmos—just one star among billions and billions.

Create a ‘solar wind’ that pushes against the fabric of interstellar space billions of miles away.

Allows gases and liquids to exist on many planets and moons, and causes icy comets to form fiery halos.

Powers the chemical reactions that make life possible on Earth.

That Heat...

How does a big ball of hydrogen create all that heat? The short answer is that it is big. If it were smaller, it would be just a sphere of hydrogen, like Jupiter. But the sun is much bigger than Jupiter. It would take 433,333 Jupiters to fill it up!

That’s a lot of hydrogen. That means it’s held together by a whole lot of gravity. And THAT means there is a whole lot of pressure inside of it. There is so much pressure that the hydrogen atoms collide with enough force that they literally meld into a new element—helium.

The energy travels outward through a large area called the convective zone. Then it travels onward to the photosphere, where it emits heat, charged particles, and light.

This process—called nuclear fusion—releases energy while creating a chain reaction that allows it to occur over and over and over again. That energy builds up. It gets as hot as 15 million degrees Fahrenheit in the sun’s core.

Nuclear Fusion

Subatomic particles \[\rightarrow\] Energy \[\rightarrow\] Subatomic particles
For a really cool animation that goes with the proceeding poster, follow this link:

http://spaceplace.nasa.gov/sun-heat

Below is a link for another Space Place article, called “Why Did It Take So Long to Discover Uranus?”

http://spaceplace.nasa.gov/uranus

For something really amazing and fun, below is a link to their 3-D Image Gallery!

http://spaceplace.nasa.gov/3d-gallery
NEWS AND NOTES FOR FORMAL AND INFORMAL EDUCATORS

The Space Place is a NASA website for elementary school-aged kids, their teachers, and their parents.

It’s colorful!
It’s dynamic!
It’s fun!

It’s rich with science, technology, engineering, and math content!

It’s informal.
It’s meaty.
It’s easy to read and understand.
It’s in Spanish.
And it’s free!

It has over 150 separate modules for kids, including hands-on projects, interactive games, animated cartoons, and amazing facts about space and Earth science and technology.

What’s New? Jupiter!

From massive planets, long distances, and extreme forces, it's a challenge for educators—let alone students—to fully grasp the sizes and scales behind astronomical and planetary science. The Space Place grapples with just this issue in one of its latest additions—a new article titled “What’s it like inside Jupiter?” Building up from the pressure you might feel at the bottom of a pool all the way to the pressure felt in Jupiter's core, this article uses mid-size sedans as its primary unit of measurement. It comes with a fun animation too. Check it out at http://spaceplace.nasa.gov/jupiter.

What’s New? Tectonics ‘Snap!’

We’ve got a new release in our popular series “Space Place in a Snap.” This time the combined poster and animation presentation tackles the concepts behind plate tectonics and the shifting nature of Earth’s crust. This is a great resource for any Earth science curriculum. Check it out at http://spaceplace.nasa.gov/tectonics-snap.

Spotlight on Activities

With the arrival of the new school year, it’s a good time to remember that our popular make-and-do activities are now available to download as easy-to-hand-out, ready-to-print PDF files. Perfect for the classroom or afterschool programs, these activities are a great way to bring the Space Place to all your students even if there are a limited number of computers or internet connections. Check out popular activities like “Build your own spacecraft,” “Make Oreo Moon phases,” and “Get your gummy greenhouse gases.” The downloads are sorted by topic and can be found at http://spaceplace.nasa.gov/make-do-pdf.
For the Classroom

What better way to decorate your classroom than with the Space Place calendar? It’s now available for the 2014–2015 school year! The calendar has beautiful images and a plethora of fascinating NASA facts and trivia. You can download it month by month, or as a complete set, at http://spaceplace.nasa.gov/calendar.

For Out-of-School Time

Everybody loves a good story. Why not read an educational one? We’ve posted an entertaining new article on the discovery of Uranus. Despite being visible to the naked eye in the night sky, it was discovered thousands of years after the other visible planets of our solar system. Find out the reasons why and learn the story behind this much-delayed discovery at http://spaceplace.nasa.gov/uranus.

Special Days

September 5 – National Cheese Pizza Day. Make a galactic mobile with the cardboard from your pizza. http://spaceplace.nasa.gov/galactic-mobile

September 13 – Positive Thinking Day. Make your positive ions outnumber your negative ions when you do the “Ions in Action” experiment. http://spaceplace.nasa.gov/ion-balloons

September 16 – Collect Rocks Day. Asteroids are big rocks in space. But how are they different from comets? http://spaceplace.nasa.gov/posters/#solarsystem


October 4 – First satellite, Sputnik, launched by Soviet Union, 1957. We have come a long way with satellites. http://spaceplace.nasa.gov/earth-card-game


October 29 – Internet Day. Celebrate by downloading some Space Place wallpaper for your computer desktop. http://spaceplace.nasa.gov/wallpaper

Share

Want some help spreading the word about NASA’s Space Place? We’ve got a page with ready-to-use website descriptions, logos, and links to all our social media. Check out http://spaceplace.nasa.gov/share.

Send Feedback

Please let us know how you’d like to use NASA’s Space Place in your teaching. Send your ideas to info@spaceplace.nasa.gov.

www.nasa.gov
And For The Young Stargazers:

Check out these fun websites from NASA!

http://climate.nasa.gov/kids
http://scijinks.gov
http://spaceplace.nasa.gov
Where We Meet:

JENKS HIGH SCHOOL PLANETARIUM

105 E. B St., Jenks, OK

From the West: (marked in red on maps below)

Take US 75 to the Main St. - Jenks exit
Follow Main St. approximately 2 miles and cross the railroad tracks
Turn left on 1st St.

From central part of Tulsa: (marked in green on the maps below)

Take Riverside Drive to the 96th Street bridge
Turn right and go over the river
Follow A St. approximately 7 blocks
Turn right on 1st St.

From the East: (marked in blue on the maps below)

Take the Creek Turnpike to S. Elm St. in Jenks
Follow Elm St. north to Main St.
Turn right on Main St. and cross the railroad tracks
Turn left on 1st St.

For Each:

Park in the lot at the end of 1st St.
Use the doors at the north side of the building
Go up the stairs to the 3rd floor (there is an elevator for those who need it)
Turn right and go down the hallway to either side of the planetarium

MAPS ON NEXT PAGE

The General Meetings are free and open to the public.

We hope to see you there!
Maps to Jenks High School Planetarium:

To get there via any of the three routes shown on previous page:

To get into planetarium parking lot:
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MEMBERSHIP INFORMATION

MEMBERSHIP RATES FOR 2014 WILL BE AS FOLLOWS:

Adults  - $45 per year.  Includes Astronomical League membership.
Senior Adults  - $35 per year.  For those aged 65 and older. Includes Astronomical League membership.
Students  - $30 per year.  Includes Astronomical League Membership.
Students  - $25 per year.  Does not include Astronomical League membership.

The regular membership allows all members of the family to participate in Club events, but only ONE voting membership and ONE Astronomical League membership per family.

Additional Family Membership  - $15 with Astronomy Club of Tulsa voting rights, $20 with Club voting rights and Astronomical League membership.

THOSE WISHING TO EARN ASTRONOMICAL LEAGUE OBSERVING CERTIFICATES NEED TO HAVE A LEAGUE MEMBERSHIP.

MAGAZINES:

Astronomy is $34 for one year or $60 for 2 years.
www.astronomy.com

Sky & Telescope is $33 per year.
www.skyandtelescope.com

Sky & Telescope offers a 10% discount on their products.
If you are an existing S&T subscriber, you can renew directly with S&T at the same Club rate. Both S&T and Astronomy now have digital issues for computers, iPads and smart phones.

ONLINE REGISTRATION

We now have an automated online registration form on the website for new memberships, membership renewals and magazine subscriptions. Just simply type in your information and hit “send” to submit the information. You can then print a copy of the form and mail it in with your check, or use our convenient PayPal option.

Link:  http://www.astrotulsa.com/Club/join.asp
Wishing you and yours a safe and happy Halloween!

Photo From NASA’s Astronomy Picture of the Day (APOD)
http://apod.nasa.gov/apod/ap041030.html
THE ASTRONOMY CLUB OF TULSA INVITES YOU TO MAKE PLANS THIS FALL TO JOIN US AT A STAR PARTY!

OPEN TO THE PUBLIC

For more information please visit www.astrotulsa.com.

The Observer is a publication by the Astronomy Club of Tulsa. The Astronomy Club of Tulsa is a 501C 3 non-profit organization open to the public. The Club started in 1937 with the single mission to bring the joy and knowledge of astronomy to the community of Tulsa, OK and the surrounding area. Today our mission remains exactly the same. We travel to local schools, churches and many other venues with scopes and people to teach. Our observatory is located in Mounds and many public programs are offered there. To join the Astronomy Club of Tulsa please visit www.astrotulsa.com where you will find all the information necessary to become a member.