



OBSERVER

October 2017

Bringing Stars to the eyes of Tulsa since 1937



M 8 Lagoon Nebula Credit: Frank Newby – Okie-Tex 2016 8 inch Astrograph reflector.

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Special Members Events

further details on page 4

Members Appreciation Picnic Friday Oct 20 starting about 5:30 PM or when you can get there
Back up date will be Sat Oct 21

We invite members and their families to come for a time of fellowship and observing. The club will provide soft drinks, hamburgers and hot dogs, relish, tomatoes lettuce and fixings plus potato salad.

If you want to bring a dessert or other snacks to share you are welcome to do so. Bring your own chair or use one from the observatory. Bring a jacket as it may be cool later. Our club secretary John Newton will be there early to fire up the grill and set things up.

Annual Club officer and board elections will be held at the meeting Friday Oct 27
You can read about this year's declared candidates on pages 6 - 8

Candidates for office or board must have been a member in good standing for at least one year and have a willingness to volunteer to help with club events and further its goals. If you have an interest in being included on the ballot, send your name and a short bio describing for what position you are running and why. Send it by Oct 20 to our club secretary **John Newton** at Astrotulsa.secy@gmail.com

Annual Members Dinner Saturday Nov 18 6:30 PM at Jenks Planetarium building.



Meal will include choice of Sliced Brisket, Pulled Pork, Baked Beans and Cole Slaw. Teresa Davis has volunteered to bring baked potatoes. The club will provide drinks. Members may bring a dessert to share if they like. Event is open to members and families.

Cost is \$ 10 per person.

PLEASE RSVP by Nov 8th with the number in your party
Email or contact Tim Davis astrotulsa.tres@gmail.com

SILENT AUCTION – wanted items of astronomical interest – books – posters – photos – Astronomy accessory items other items of interest. Bring them with a brief description to be included in a silent auction to benefit the club and its activities.

RECYCLE YOUR SOLAR GLASSES

Bring glasses that are in good condition to club events this fall.



The group “**Astronomers Without Borders**” is asking for donations of Solar Viewing Glasses to be donated to student groups in South America and Asia. There are two Solar Eclipses in 2019. The July 2 event is a Total eclipse in southern South America and the Dec 26 is an Annular eclipse in Asia stretching across the India peninsula and the Philippines. There are also solar eclipse events in the same general regions in June and Dec 2020. Our next solar events are an Annual eclipse in Oct 2023 and Total Eclipse in April 2024.

<https://astronomerswithoutborders.org/awb-programs/resource-sharing-programs/eclipse-glasses-donation-program.html>

PRESIDENT'S MESSAGE

BY RICHARD BRADY



Saturday, September 30 and Sunday, October 1 is High Frontier 14, hosted by the Tulsa Rocketry Club. The rocketry club shoots off rockets that go as high as 25,000 feet (the FAA limit for the event) during Saturday and Sunday, and the astronomy club hosts a star party there Saturday evening. It is at the Pawhuska Municipal Airport, just west of Pawhuska. The club has gone out to the event many times before, but recently we have been unable to go since High Frontier was scheduled during Okie-Tex. They actually rescheduled their event so our members could be there, so I would like to see a large turnout of club members to thank them. More info can be found at <http://tulsarocketry.org/high-frontier/>.

In October, we are going to have a picnic for our members on Friday, October 20 (with a backup date of Saturday, October 21). These are the same nights as our Member Observing Nights. We plan to be there early around 5:30-6:00 PM to eat before observing. The club will provide soft drinks, hamburgers and hot dogs, relish and fixings plus potato salad.

Also in October we will be holding elections for officers and board members at the October General Meeting on Friday, October 27th. I will be stepping down as president after holding the office for 3 years. So far we have

Tamara Green (currently VP) running for president,
Jerry Cassity (currently board member) for vice-president,
John Newton (incumbent) for secretary, and
Tim Davis (incumbent) for treasurer.

For the board we have

Jacob Shepherd (first time), James Liley (incumbent),
James Taggart (incumbent), John Land (incumbent),
Richard Brady (currently president), Skip Whitehurst (incumbent),
Teresa Davis (incumbent).

If you want to run for an office or board member, please let our secretary, John Newton, know. His email address is astrotulsa.secy@gmail.com. To be an officer or board member you must be a member in good standing for at least a year.

Then on **Saturday, November 18th we will be having our annual club dinner**. The dinner will be from 6:30-8:30 PM at the meeting room opposite the Jenks Planetarium, like last year. We have an hour beforehand to set up and half an hour afterwards to clean up. We will have another planetarium show afterwards. This year we will be using 2Pops Catering. They will be providing Sliced Brisket, Pulled Pork, Baked Beans and Cole Slaw. Teresa Davis has volunteered to bring Baked Potatoes. The club will provide desserts and drinks. If you would like to bring a dessert, please contact Teresa or me. The cost is \$10 per person. We would like to have a Silent Auction table again. If you want to contribute let me know.



The planets this month

In the sky this month, Saturn is the only planet well placed in the evening, Mars and Venus get quite close to each other (from our perspective) at the beginning of the month, but Mercury and Jupiter are too close to the sun to be seen well (if at all) this month.

Saturn (magnitude +0.5) is still up most of the evening on October 1, setting at 11:00. But by Halloween it sets at 9:10. With the rings tilted about as far as they can be, Saturn and its rings are wondrous sights even a small telescope.

Mars (magnitude +1.6 - +1.8) comes up at 5:32 at the beginning of the month and 5:05 at the end, about 1¾ hours before sunrise all month.

Venus (magnitude -3.9) is the bright morning star. It comes up around 5:19 AM at the start of October and around 6:21 AM at months end.

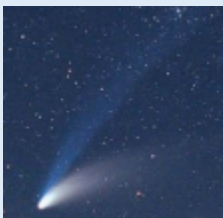
Also, Mars and Venus are within 35' of each other on the 4th of the month.

Mercury (-1.4 - -0.4) is at superior conjunction on October 8, so it is going from a barely visible object just before sunrise to a barely visible object soon after sunset.

Jupiter (magnitude -1.7) is heading for superior conjunction on October 26, so it is lost in the sun's glare all month.

Clear skies!
Richard Brady

Breaking Sky News



C/2017 O1 (ASASSN) reaches its brightest Oct 16 at a distance of 0.72 AU from Earth and 1.49 AU from the Sun.

Predicted peak to be about 7.6 magnitude putting it in the range of binoculars and smaller telescopes in darker skies.

The comet is in a polar orbit currently in Perseus – then Camelopardalis and Skirting near Polaris next month.

Details and an interactive chart at https://in-the-sky.org/news.php?id=20171016_18_100

Note: *The image is Comet Hale-Bopp that put on a spectacular show in 95-96*

Candidates for Club Officers and Board – Elections are Oct 27



Tamara Green - President We first met Tamara and husband Owen at our Aug 2003 Mars Opposition watch held near at Mohawk park. They joined the club in May 2004 and have been active ever since. Tamara has been the club Vice President since 2015. She has also served as Secretary from 2010 – 2014; President from 2007-2008; and as Board-Member-At-Large from 2005-late 2006. Was Vice President briefly in late 2006, but elevated to President in November of that year. Currently serves as Newsletter Editor (ending September 2017) and Observing Co-Chair with husband Owen Green which I will continue next year. They also host our SideWalk Astronomy nights.

Her Likes are: Cats, astronomy, beading and other crafting and artsy-fartsy things, collecting fountain pens, authentic Mexican food, sushi, wine, cocktails, coffee and Owen. Not necessarily in that order. Hopes to see the club do some neat things in the coming year!



Jerry Cassity – Vice President Three years ago, I went to the ACT Public Night at the Mounds observatory. Before I left that night, I knew that I wanted to join the club. Shortly thereafter, I joined and obtained my first telescope. I have been an active member ever since, attending many of the Members Nights, Public Nights and Special Events, and also serving on the Board for one year. I particularly enjoy the Public Events and love hearing the exclamations from those seeing celestial objects through a telescope for the first time. I understand the value our club has to its members and to the general public. It's truly been a pleasure being a part of the ACT. I look forward to continued advancement of our club. I am really pleased with my new 16 inch Dobsonian telescope that I got to take to the dark skies of Okie-Tex.



John Newton – ACT Secretary I have been a member of ACT since 2014, and currently performing the role as club secretary for the past year. As such, I have been tasked with capturing minutes from regularly held board meetings and presenting them in a consolidated letter to all members via the club newsletter. I also share the responsibility in counting votes with the treasurer at board meetings and during general office and board elections. I enjoy volunteering my time, energy and support to the club whenever possible.

A little about me. While in college I studied business and engineering. To date, my professional background includes over 30 years in the telecommunications industry presently working for a telecom manufacturing company named Ciena. I started out in voice and data transmission services over copper facilities at a central office in Connecticut, however, my experience had evolved with technology in adapting new protocols and creating communications applications over high-speed fiber optical services as a photonic engineer. I apply my technical knowledge of laser light transmissions over a fiber optic medium for telecom providers globally.

Also in my college years, I took both solar and stellar astronomy classes which unlocked my interest in astronomy. I own a set of Barska 25x 100 mm binoculars to gaze at locally visible objects in detail comfortably with both eyes, such as the moon, planets and nearby nebula. I am now considering an investment in a telescope to observe and track deep space objects. The club and its members have been a remarkable resource for expanding my knowledge on astronomy while having access to a variety of optical instruments to help me in my curiosity of the heavens.

Lastly, there is a human side to me as well. I am fortunate to be married to my lovely wife Brenda, blessed with 3 beautiful daughters, and 2 young grandchildren all of whom keep us very busy.



Tim Davis – Treasurer - - Teresa Davis - Board

I have been a member since 2003. In the past I have served as Vice-president, President, group director and board member. I have been treasurer for the last four years and will look forward to continue as treasurer. My interests in astronomy are solar, planetary and deep sky observing. Tim often brings his 12” Dobsonian scope to our club public nights had helps out with groups visiting the observatory. Shown here with wife Teresa. Tim and Teresa met while volunteering for astronomy club events.

Clearly they are a match made in the heavens and a genuine asset to our club.

Teresa Davis – Board

Teresa joined our club in 1994. She has been an active volunteer ever since. As a school science teacher she has a special interest in encouraging students to learn about and experience the wonders of the night sky. Her enthusiasm for teaching and learning is an inspiration to all who get to know her. She served for many years as our group coordinator organizing visit to the observatory. Teresa was also our club secretary faithfully keeping the minutes of board meetings and other club events. She has also served as Vice President and been a member of the board for many years.



Jacob Shepherd – New nominee to the Board

We are pleased to nominate a new member to our board this year. Younger minds bring enthusiasm and fresh perspectives to the future of our club. Jacob says he has had an interest in astronomy since he was a kid. That sense of wonderment was rekindled in 2011 with a visit to the Hawaiian Observatories on the 14,000 ft high mountain of Mauna Kea. There he toured the Keck and Gemini telescopes. That night he got to stargaze under the amazing dark skies at the 9,200 ft altitude visitor center on the mountain. Living in Washington State, Jacob tells of driving up into the ski areas during the summer time and observing the Milky Way.

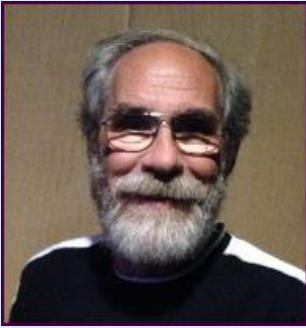
Living in Jenks now, Jacob is a Data Analyst and working on an advance degree at OSU. Jacob joined the Tulsa club in 2015. He enjoys helping on Public Nights using the 12” Meade Light Bridge telescope at the observatory to show our guest the wonderful sights of the night sky.



James Taggart – Board and Observatory manager

James has been a tremendous addition to our club. He lives just a few miles from the observatory site which greatly adds to the security of the facility. James was a longtime friend of Chris Proctor who managed the observatory. In 2012 James started helping Chris out and rekindled an interest in astronomy he has shared with his Dad as a kid. In 2014 James took over as Observatory manager and has done a fantastic job maintaining the grounds and facility. During this time he negotiated the contracts for the new observatory roof, has installed an Internet WiFi system for the observing grounds and is currently working on a new wireless security system. This summer he began the project of replacing the skirting on the dome to make it more weather resistant.

James works as a technology architect for IBM designing and testing new systems. He has recently built an observing dome on his property where he uses his C 8 telescope for imaging. He plans soon to explore the area on spectrographic imaging as well.



Skip Whitehurst - Board Skip was been a lifelong astronomy enthusiast. His father taught astronomy and Skip began studying the stars with his 6 inch refractor as a teen. He became a physicist and has worked in the both the geophysics and aerospace industries. He was a member of the Tulsa club in the early 90's and rejoined in 2011. Skip joined the board in 2014 and has volunteered with public nights, Sidewalk Astronomy nights and working on the maintenance of the observatory. His knowledge of electronics, computers and engineering details are a great asset to our club.



James Liley – Board James has been in the astronomy club since 1967 and continued to be active throughout his teens and adult years. Serving as President and board member in the 80's and 90's James was one of the leading people in the planning, design and building of our observatory. His knowledge of that area was the key factor in the selection of its site. While at OSU James came across 1950's vintage 16" f 6 refractor that he later donated to the club and became the original telescope installed in the dome. James has taught astronomy at TCU for many years and brings his students to the observatory do some firsthand observing. He also brings a group of students to Okie-Tex each fall to experience its amazing pristine dark skies. James's knowledge of the club and its historical roots add perspective to the enduring legacy of our club.



John Land – Board

Having grown up along with the Space Age in the 50's and 60's, I have always been fascinated with space. I was blessed to have a mother with a keen scientific mind who encouraged my curiosity about the many wonders of God's creations. I had a small refractor as a teen and used to lay out on hot summer nights to look at the stars. I discovered the Tulsa Club in the spring of 1977 and used to drive 70 miles from Okemah to attend the meetings. I had some great mentors such as Nick Pottorf, Art Sweeney, Louis Desjardin and others who took the time to guide me on my journey of knowledge to discover the treasures of the night sky. One of my greatest joys as a member of the club is to pass that legacy on to others. I have served in various leadership capacities in the club including observing chair, president, treasurer, board member and began this fall as newsletter editor.

In 1978 I became a High School Science teacher in the rapidly growing town of Broken Arrow. On Feb 26, 1979 Tulsa had a 71% partial eclipse of the sun. I set up a telescope at the school to share the eclipse with the students. Later that spring the assistant principal asked me if I would like to try to develop a class in astronomy for the BA students. As the town grew my classes grew until by the mid 90's I taught a full day schedule of astronomy classes. For 28 years I was blessed to be able to share my passion for the wonders of God's universe with several thousand students as well as my fellow teachers.

Richard Brady – Board

Richard has been a member of the club since 2012. He has been a regular volunteer at public nights, Sidiewalk Astronomy nights and other club events. He has served on the board, as vice president and been president for the past 3 years. Under Richard's leadership the club has put a new roof on the observatory, repainted the classroom and made improvements on the dome. He has worked with Dan Zielinski from the Jenks planetarium to create a greater involvement with the club. As a regular feature of the club, Richard does a review of the astronomical news items he has gleaned from the Internet during the month. He is stepping down from the president position but plans to remain active as a volunteer and member of the board.

Wanted Astrophotos



Jenks Planetarium is seeking local Astro-Photographers to contribute to decorating the hallways entering the planetarium. We'd like images that are clear enough for general audiences to enjoy and, with a small write-up posted with it to learn from.

I'd like as many different objects as possible...

Nebulae, Galaxies, Planets, Moons even sky effects like Sunsets, Auroras, Eclipses etc.

I'd love to be an outlet to show off your work to our audiences. Credits will be given with each image within the write up that will accompany them.

Images and brief write-ups can be submitted to Dan Zielinski at

Dan.zielinski@jenksp.org Make sure the write includes:

- Name of the person credited with taking the picture
- Date, time and location of picture
- Equipment used
- Details on what the image is.

Thanks for being part of improving Jenks Planetarium!



Images by Frank Newby & John Land

Classic Premium 12 inch telescope from early 2000's offered for sale
Contact Ted Hill at 918-639-2987 for details and to make an offer

Meade 12" LX-200 Go-To Schmidt Cassegrain with wedge, tripod, dew shield, hardware, cords, connectors, controllers, 8x50 guide scope, and case

70 mm refractor / guide scope and tripod with separate case

Meade Pictor CCD imaging system (model 416 XTE)

Meade off axis guider

CCD Autoguider (Model 201 XT)

Cables, connectors

50 pin to 26 pin PC card cable

Meade CCD HA Interference filter

Meade Series 4000 f/3.3 CCD

focal reducer

Meade series 4000 f/6.3

focal reducer/field flattener

Meade I-R multicoated 9mm Plossl

Meade Flip mirror system (Model 647)

Meade 90 degree mirror

Bus toaster SCSI 11 Adapter

Adapter 1480A Ultra SCSI card Bus

Two Locking Accessory cases

Meade Series 4000 filter #82A

Meade Series 4000 Nebular Broadband

Meade Series 4000 Filter ND 96 (0.9)

Various eyepieces- Multicoated optics and most have individual cases

Meade 56mm super PLOSSL

Meade 26mm super PLOSSL

Meade 15mm super PLOSSL

Meade 12.4mm super PLOSSL

Meade 9.7mm super PLOSSL

Meade Ultra-wide angle 4.7mm

Orion 3.8mm Lanthanum

Meade 2X Telenegative Amplifier,
air spaced triplet (Model 140)



Astronomers have mapped out the sky into 88 regions identified as **Constellations**.

The International Astronomical Union set their official boundaries in the 1930's. Today we use them to identify certain regions of the sky much like continents and nations help map areas of the world. Most of the names of constellations come from the Greeks or Romans but some have more modern origins.

An Asterism is a simple pattern of stars with a popular name. Asterisms usually consist of brighter stars arranged in geometrical patterns that are easy to identify. There are no official rules for an asterism and different cultures may have different names. For example the pattern of stars we call the Big Dipper in America is known as the Plough in England, a Wagon in Germany and a Chariot in Turkey.

October is World Series time. Americans tune in to radios, televisions or now their "devices" to see which team will come out on top in the Great American Pastime of Baseball.

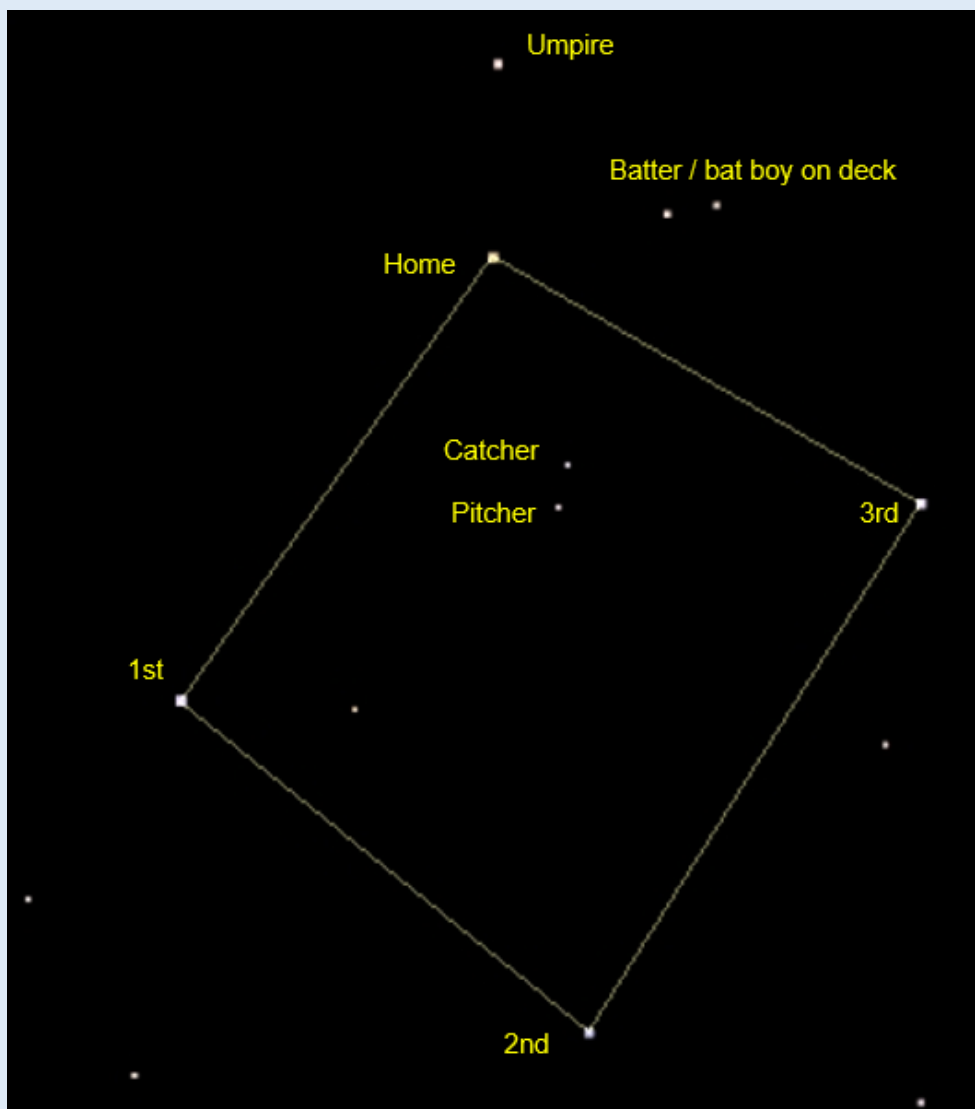
But did you know that there is a **"Baseball Diamond" in the sky?**

Go out any clear October evening an hour or so after dusk and look halfway up to the East.

With a little imagination you can easily see the bases and players.

Now I bet you want to know what teams are playing in the sky ?

The **Astros** and the **Angels** of course.

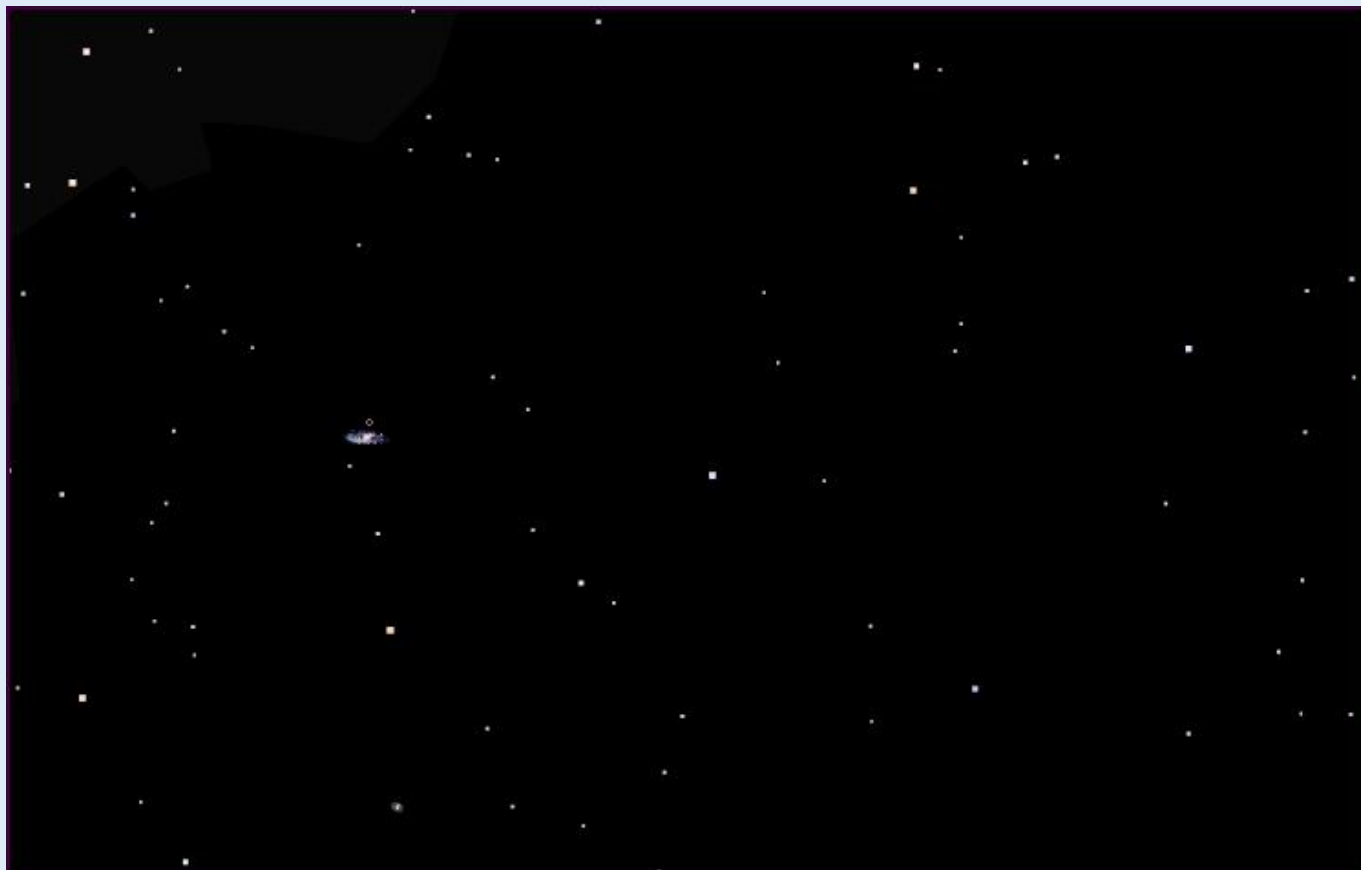


By now my astronomer friends are protesting because they know this area as **THE GREAT SQUARE of PEGASUS** the Flying Horse. Now whoever saw a flying horse shaped like a square ! Since there are no “rules” for asterisms, when talking to kids or novice astronomers I find the Baseball Diamond image excites their imagination and gets them to look more closely at the stars. Astronomers use the term **MAGNITUDE** as a numerical measurement of a stars brilliance. The 20 brightest stars are 1st mag and each mag below that is about 2.5 times dimmer. The human eye can see down to around 6th mag under dark skies which is 100 times dimmer. The stars of the main bases have magnitudes ranging from 2.0 to 2.8 and can be easily seen even in town. The umpire star is 2.9 – the batter 3.5 and the bat boy 3.96 so they are a bit more challenging. The pitcher and catcher are having a conference in front of the mound. It’s a real challenge is to see the pitcher at 4.4 mag and catcher at 4.56 mag. I often have to explain to people how to use averted vision by scanning their eyes back and forth.

Now we can start searching for a **Deep Sky Treasure** hidden in the depths of the sky. You will likely need binoculars the first time but under dark skies you can find this treasure with the unaided eye! Start with the Baseball Diamond on the right side of the image. **Find 1st Base** and look to its **Left** for two more bright stars to make a **row of three bright stars**. Next find the **center star** in that row (it has a slightly orange color) Look for **two fainter stars** extending above it. Look carefully just beyond the top star and you will see a **fuzzy patch in the sky**. It kind of looks like finger smudge on a piece of glass. You are now looking at the **Great Andromeda Galaxy called M 31**. The light entering your eye at that moment has traveled through space for **2.5 Million years!** just so it can delight your eyes with this vision. The Andromeda galaxy is twice as large as our Milky Way galaxy.

It is about **220,000 light years across** and holds an estimated **1 Trillion Stars!**

GO OUT and stroll the night sky ! You’ll feel like you hit a HOME RUN into the Stars!



Images from Starry Night pro 3.0 software https://en.wikipedia.org/wiki/Andromeda_Galaxy

A good way to start learning the sky is to recognize the constellation patterns.

“The Stars – A New Way to see them” by H.A. Rey uses easy to trace out stick patterns

To outline the constellations as well as general information for the novice learner.

His book **“Find the Constellations”** by H.A. Rey works better for early elementary kids.

The Astronomical League has many Observing Certificate programs to help you learn how to navigate the night sky and seek out its hidden treasures. There are programs for novice level learners all the way to highly advanced observers.

<https://www.astroleague.org/al/obsclubs/LevelObservingClubs.html>

Some recommended starters are

Universe Sampler

Sky Puppy for Kids

Lunar Observing

Constellation Hunter

Asterism Observing

Messier Catalog objects – 110 deep sky objects for small and medium telescopes.

Image below taken with an unguided Cannon camera 18 mm at f 3.5 ISO 1600 for 30 secs

The Baseball Diamond is easily seen and if you look carefully you can just make out M 31.

Photo of Great Square of Pegasus and Andromeda region. By John Land



TREASURER'S AND MEMBERSHIP REPORT

BY TIM DAVIS



Astronomy Club of Tulsa: 156 members, including 40 new members in 2017.

Welcome to our new members this month:

Tony Cagnolatti, Drew Magness, Kris Bryant, Christopher Trockel and Beverly Todd

Club Accounts as of September 28, 2017:

Checking: \$ 5,704.28

Savings: \$ 6,777.15

Investment accounts: \$ 22,053.97 (*Value Fluctuates with Market*)

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. 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 2017 are as follows:

Adults: \$ 45 per year, includes Astronomical League Membership.

Sr. Adult: \$ 35 per year for those 65 or older, includes Astro League Membership.

Students: \$ 30 with League membership; Students: \$ 25 without League membership.

Additional Family membership: \$ 20 with voting rights and League membership.

\$ 15 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.

Join Online – Add or renew magazine subscriptions.

<http://www.astrotulsa.com/page.aspx?pageid=16>

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 for 1 year, or \$ 60 for 2 years. www.astronomy.com

To get the club discount you must go through the club group rate.

Sky & Telescope is \$ 33 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

You are invited to come join us to learn more about Astronomy and view the wonderful sights in the night sky.

Check our Events Page of Dates [Link to Events Page](#)



During the school year our club holds a **Monthly General Club meetings** at **Jenks Public Schools Planetarium**
105 East B St, Jenks, OK

Meetings begin at 7:00 PM

When you enter the building lobby, take the elevator to the 3rd floor.

[Click for Google Map Link](#)



Sidewalk Astronomy Night

East side of Bass Pro in Broken Arrow near the lake.

101 Bass Pro Drive, Broken Arrow, OK

[Click Map Link here](#)

On a Saturday evening near the 1st Quarter moon Astronomy Club volunteers set up telescopes to share views of the moon, planets and other bright objects. It's a come and go event where shoppers and restaurant goers get a chance to experience glimpses of the universe with their own eyes.



ASTRONOMY CLUB OBSERVATORY

Located on a hilltop about 25 miles SW of Tulsa

Features: classroom, restroom, dome with 14 inch telescope and an acre to set up your telescopes.

Weather permitting we host two types of observing nights.

PUBLIC OBSERVING NIGHT on a Saturday

This event is open to individuals and families.

Club members set up telescope for public viewing.

* Groups need to make separate arrangements.

MEMBERS OBSERVING NIGHT usually on a Friday near new moon

Reserved for club members and their families to allow them to pursue observing projects.

The Observatory is ONLY OPEN for SCHEDULED EVENTS. [Link to Events Page](#)

[Click for Observatory Map](#)

CAUTION: **DO NOT** use **GPS** it will likely send you on some nearly impassible back roads.

**PLANETARIUM EVENTS 2017
FALL SHOWS**



Jenks High School Campus
205 East B Street, Jenks

TICKETS

\$5 online or \$7 at the door
Purchase online at jenkscommunityed.com
or call 918-298-0340

JENKS PLANETARIUM

Explore the night sky with engaging, awe-inspiring shows at the Jenks Planetarium. The 50-foot dome provides the ultimate screen for seeing planets up close, flying to distant galaxies, and even rediscovering our own earth in ways never thought possible.

THE SUMMER SKY

Summer nights are short, but the skies are the busiest of the year. From swans to eagles to scorpions to centaurs, the summer sky is filled with constellations and fascinating stories. Weather permitting, we will also stargaze on the rooftop deck. (Ages 8 & up)

ANIMALS OF THE SKY

A young girl, Delphina, finds herself in an unfortunate incident and gets unexpected help from the animals of the sky. Come experience her story and discover how the stars can create animals! (Ages 3-10)

THE SISTINE CHAPEL

The Planetarium isn't just for astronomy anymore! Join us for a tour of the Sistine Chapel in Rome. Learn the meanings behind the paintings and see the scenes come together in an amazing retelling of the Bible. A must-see for all art lovers! Notice: this show displays the real paintings as seen in the Sistine Chapel, which contain some artistic nudity. (Ages 10 & up)

MY HOUSE HAS STARS

People all over the world live in many types of houses--from houseboats to mud huts. No matter where you live though, your house has stars! Based on the book, this story introduces both houses and stars from places and cultures all over the planet. (Ages 6 & up)

COMPASS, CALENDAR, CLOCK

As our ancients learned, the sky is not just a thing of beauty, it's the ruler for the position of our planet. Understanding how our planet is aligned with distant stars allows anyone to use the sky as a compass, a calendar and a clock. (Ages 12-adult)



Roof Top viewing

FALL 2017 SHOWS

**The Summer Sky
(Ages 8 and up)**

Sept. 5.....7:30pm
Sept. 7.....7:30pm
Sept. 9.....7:30pm
Sept. 11.....7:30pm
Sept. 13.....7:30pm

**Animals of the Sky
(Ages 3-10)**

Sept. 19.....7:00pm
Sept. 21.....7:00pm
Sept. 23.....11:00am
Sept. 25.....7:00pm
Sept. 27.....7:00pm

**Sistine Chapel
(Ages 12 and up)**

Oct. 3.....7:00pm
Oct. 5.....7:00pm
Oct. 7.....11:00am
Oct. 9.....7:00pm
Oct. 11.....7:00pm

**My House Has Stars
(Ages 6 and up)**

Oct. 24.....7:00pm
Oct. 26.....7:00pm
Oct. 28.....11:00am
Oct. 30.....7:00pm
Nov. 1.....7:00pm

**Compass, Calendar, Clock
(Ages 10 and up)**

Nov. 7.....7:00pm
Nov. 9.....7:00pm
Nov. 11.....11:00am
Nov. 13.....7:00pm
Nov. 15.....7:00pm



ASTRONOMY CLUB OFFICERS:

PRESIDENT - RICHARD BRADY

astrotulsa.pres@gmail.com

VICE PRESIDENT - TAMARA GREEN

astrotulsa.vp@gmail.com

SECRETARY - JOHN NEWTON

astrotulsa.secy@gmail.com

TREASURER - TIM DAVIS

astrotulsa.tres@gmail.com

BOARD MEMBERS-AT-LARGE:

JOHN LAND

JAMES TAGGART

SKIP WHITEHURST

JAMES LILEY

JERRY CASSITY

TERESA DAVIS

STAFF:

EDITOR - JOHN LAND

astrotulsa.editor@gmail.com

MEMBERSHIP CHAIR - JOHN LAND

tulsaastrobiz@gmail.com

OBSERVING CHAIRS

OWEN AND TAMARA GREEN

darthnewo@yahoo.com

astrotulsa.vp@gmail.com

SIDEWALK ASTRONOMY -

OWEN GREEN

darthnewo@yahoo.com

PR AND OUTREACH -

OWEN GREEN

darthnewo@yahoo.com

GROUP DIRECTOR - OWEN GREEN

darthnewo@yahoo.com

NIGHT SKY NETWORK -

RICHARD BRADY

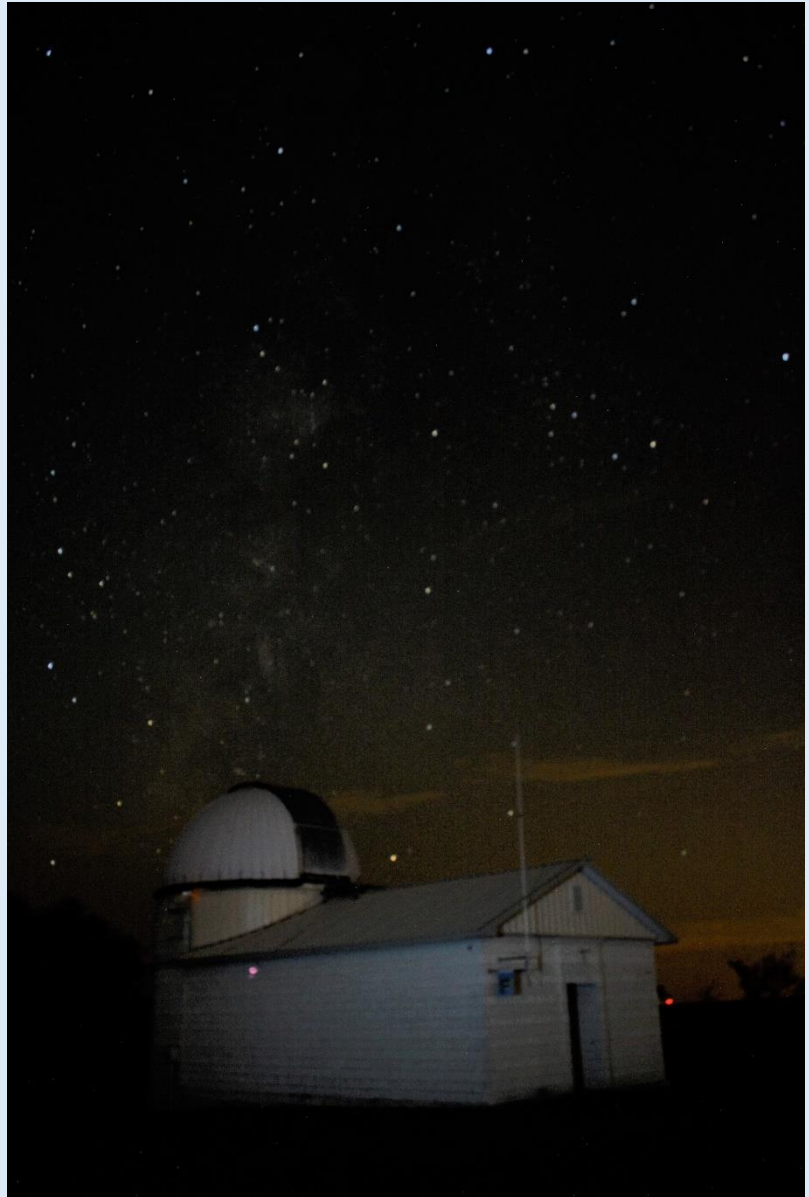
astrotulsa.pres@gmail.com

FACILITIES MANAGER -

JAMES TAGGART

astrotulsa.obs@gmail.com

WEBMASTER JENNIFER JONES



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