

ASTRONOMY CLUB



OF TULSA

OBSERVER

May 2026

*Bringing Stars to the eyes of Tulsa
since 1937*

Editor - John Land



NGC 1514, the Crystal Ball Nebula by Liam Yanulis


NGC 1514 is a Planetary Emission Nebula located about 1,500 Light years away in Taurus. Most PN are shells of gas expanding from single stars, but this one surrounds a binary star system. See an [JWT image and details](#)

Apertura 6" f/9 Ritchey-Chretien telescope, ASI533MC Pro camera,
and Sky-Watcher HEQ5 mount. This is a 3 hour stack of 3 minute exposures.

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Stargazing Nights and Observatory Nights

Come enjoy an evening of star gazing at our observatory located in dark rural skies SW of Tulsa
 Details, Times and Direction Maps are posted on our Website <https://www.astrotulsa.com/events>



**Join us Friday Night May 1st at 7:00 PM
 at the Jenks High School Planetarium**

Does the movie, *Project Hail Mary*, have you thinking about finding friends beyond Earth's atmosphere? Join us as our President, Jonathan Fussell, presents an upcoming publication exploring network reactions in the ocean of Saturn's moon Enceladus and their role in the search for life beyond Earth.

Jonathan is currently a graduate student at Embry-Riddle Aeronautical University studying Space Operations and has spent over three years in astrobiology research. He plans to continue this work by pursuing a PhD focused on characterizing exoplanet atmospheres as the search for life continues.

Saturday May 23 – 7:30 to 9:30 PM - Hunter Park Public Telescope Night - 5804 E 91st St

Guest and member Observatory nights

FRIDAY May 8 - 7:45 PM Guest & Members Night

FRIDAY June 5 - 8:00 PM Guest & Members Night

Astronomy Club Members Nights

Our members are invited to come work on their observing goals, do some Astro imaging and share ideas.

Friday May 15 - 7:45 PM Members Observatory Night

Friday June 15 - 8:15 PM Members Observatory Night

If a Friday event must be cancelled due to weather, we will try on Saturday 30 minutes before sunset - Always check the website for event updates





Salutations members,

It's hard to believe we're already halfway through the year. It feels like just yesterday we were wishing each other a Happy New Year.

At the time of writing this, we've just wrapped up another major outreach event at Guthrie Green for their Movie on the Green night featuring Interstellar. In proper astronomy fashion, we showed up ready with telescopes—and the evening did not disappoint. There were so many “oh wow!” moments that, using my highly scientific “Oh Wow Barometer,” I'd confidently call it a massive success. We observed the Moon, Jupiter, and even a few faint clusters using several SeeStar S50 imaging telescopes. A special thank you to all of our volunteers—you make it a genuine pleasure to serve as your President.

Earlier this month, we also had the chance to see Project Hail Mary as a club—another huge success, and one I think we may need to repeat in the near future. Riding that momentum, I'm especially excited to share that I will be presenting a paper developed alongside my research group, which we are preparing to submit to the American Chemical Society's Earth & Space division: A Network Model of Organic Synthesis in Enceladus' Ocean. With permission from my research lead, Dr. Jim Cleaves, I look forward to sharing the work I've been involved in over the past year and a half.

Now, with all of that excitement, I do unfortunately have some difficult news to share. For those who haven't yet heard, the Jenks Public Schools Board has decided to permanently close the Jenks Planetarium—our club's home for over a decade. This news is deeply disheartening. However, I have no intention of letting this happen without making our voices heard.

I am currently working to speak at the next Jenks School Board meeting, where I plan to formally present and advocate for reconsideration of this decision and the long-term impact it may have on STEM education in our community. My hope is that by the time you read this—and by the next time we meet—I will have more concrete updates to share.

If you would like to support this effort, I encourage you to sign the petition:

<https://www.change.org/p/save-the-jenks-planetarium>

Every voice matters. Even if the outcome is uncertain, it is our responsibility as educators, scientists, hobbyists, and astronomers—to advocate for resources like this.

(Thank you for indulging me for a moment.)

As always, please check the website for upcoming events, including what may be our final meeting at the Jenks Planetarium—for now. If you're new to the club, we typically take a break from formal meetings over the summer, though we may have some exciting alternatives in the works... perhaps an ice cream social? Stay tuned.

And don't forget—our next Guest Night at the observatory is coming up on May 8. If you're looking to get more involved, there's no better place to start. Whether it's helping direct traffic, answering questions, or simply being a welcoming face, we can always use extra hands.

This is *President Jonathan Fussell*,

currently in orbit around Saturn, saying clear skies—and see you soon.

Astronomy Club of Tulsa - “Bringing Stars to the Eyes of Tulsa since 1937”

2026 ASTRONOMY CONFERENCES and STAR PARTIES

Are you looking for a way to combine a bit of vacation time and enjoy learning more about astronomy? A regional or national astronomy conference may be just the thing for you. You can make friends with like-minded astronomy enthusiasts and also get to hear some interesting presentations on a variety of topics. The door prize giveaways are also an extra little bonus.

Get your Registrations in soon



2026 MidStates Regional Astronomy Conference June 26 to 28
in St. Charles, Missouri.

<https://www.asemonline.org/2026-msral> Hosted by the Astronomical Society of Eastern Missouri, this three-day event will include a Friday evening StarBQ and observing session, followed by convention programming on Saturday and Sunday. The speaker lineup is shaping up to be exceptional, with presentations covering the story of Gus Grissom, comets and the origins of life, the Vera Rubin Observatory, and the hidden geology of the Moon



31st Annual Nebraska Star Party - July 12 -17

<https://www.nebraskastarparty.org/>

Experience the breathtaking beauty of the night sky at Merritt Reservoir in the Nebraska Sand hills. Merritt Reservoir State Recreation Area (SRA) is certified as an International Dark Sky Park.

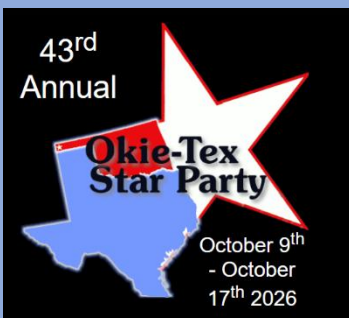
Enjoy a variety of recreational activities including swimming, tubing and boating. We also have a beginner field school and astronomy activities for kids

ALCON2026.org

**National Astronomical League
convention Aug 12 -15**

The ALCON 2026 will be located in Cincinnati, OH.

Details are still in development but you can save the website <https://www.alcon2026.org/> and register for emailed updates. See an Overview starts About 8 mins in to YouTube – AL 80th anniversary <https://youtu.be/G2-tzvtob74?t=500>



Okie-Tex Star Party Oct 9 – 17 <https://www.okie-tex.com/index.php>

Several of our Tulsa area astronomers enjoy going to the Okie-Tex Star Party in the autumn. Each year about 500 astronomers arrive from all over the nation for a week-long feast of starlight. Okie-Tex is held on a spacious observing area just west of the Black Mesa State Park at the far western end of the Oklahoma Panhandle. Its bortle 1 dark skies are acclaimed as some of the darkest on the planet. Each time I go I am overwhelmed by the late summer Milky Way flowing overhead like a river of stars engulfing the

sky. You need to register and reserve your meal choices BEFORE August 31, 2025

There are other extended Star Party events around the country. So, look for developing news in your Astronomical League quarterly newsletter [The Reflector](#), Astronomy Periodicals or search online.



Click on these images to links on the Internet



*** The NEW CLEAR OUTSIDE icon above is a link to an extensive site showing cloud cover %, Seeing, Transparency, Moon Phase, Temp in ° C and many other useful tools

GOT A NEW TELESCOPE? Here are some sites to help you get started with you telescope.

Getting Started with Your New Telescope

<https://skyandtelescope.org/astronomy-news/getting-started-with-your-new-telescope-2/>

Astronomy for Beginners | Night Sky Facts, FAQs & Resources

<https://skyandtelescope.org/astronomy-information/>

What to Know Before Buying a Telescope

<https://skyandtelescope.org/astronomy-news/what-to-know-before-buying-a-telescope/>

See [Website Observation Station](#) for a collection of [Interactive Sky Watching Tools](#)

Moon phases - Sun rise & Set - [Make your own custom interactive sky chart](#) and more

Great website for printable Finder Charts of Solar System objects <https://in-the-sky.org/>

[Astronomy Calendar 2026: All Major Celestial Events of the Year](#)

Explore a Month-by-Month listing of Celestial Events – Many have links to Details or Videos

[Daily Moon Guide](#) | Observe – Moon: NASA Science

March - Moon Phases - -

Full Sat May 1 & Sun May 31 - - 3rd Q -- Sat May 09 - - New Sat May 16 -- 1st Q Sat May 23

Lunar conjunctions – Morning **Saturn - Neptune** Weds May 13,

Mars Thurs May 14, Evening **Venus** Mon May 18 **Jupiter** May 19 & 20



We will enjoy TWO FULL MOONS in May. The “Flower Moon” on May 1 and another Full Moon on May 31. The 2nd Full Moon in a calendar month is commonly called a “Blue Moon” But don’t expect to see an Azure moon. Both will be “Micro moons” occurring near the moon’s apogee when it is furthest from Earth.



VENUS is our bright Evening “Star” in the west climbing higher each evening. **JUPITER** on the other hand is sinking lower each evening. The two planets are headed for a close conjunction two degrees apart on June 9th. **Mercury** emerges in the evening sky in the last week of May and will put on a good show in mid-June forming a line with **Jupiter & Venus**



The [Eta Aquariid meteor shower](#) peaks on May 6th, however meteors can be seen from late April through mid-May. The radiant in Aquarius rises in the ESE about 3:00 AM. These meteors are originate from the famous comet 1p / Halley. Comet Halley put on a good show in winter of 1986 and will return again in the summer of 2061. It is now 35 AUs distant in Canis Minor

Try this interactive [Jupiter Moon Calculator](#) or handy JupiterMoons App

The Astronomical League has a wide variety of observing programs

webpage at <https://www.astroleague.org/wp-content/uploads/2026/01/AL-Getting-Started-20260104.pdf>

Astronomy in the News & Extreme Astrophotography

By John Land

These are selections of astronomy related articles I have enjoyed recently.



I'm sure most of you enjoyed watching the Artemis II moon mission and following the daily updates. 70% of our nation's population were not even born when Apollo 17 made the last manned lunar landing in December of 1972. I watched the splashdown with my grandchildren who were still preschoolers when the last Shuttle mission flew in July 2011. We will all be looking forward to continued efforts to expand human horizons into space in the coming years both by the USA and other like-minded nations.

The best photos from NASA's first moon mission in more than 53 years

<https://apple.news/AmjKFMw7AR2OQC9u0PaMYKw>

82 NASA missions at risk under new proposal | The Planetary Society

<https://www.planetary.org/articles/82-nasa-missions-at-risk-under-new-proposal>

How to contact your [USA House Representative](#) and our [Oklahoma USA Senators](#)

These include current missions now active in space such as the [New Horizon Mission](#). When launched it was our fastest space mission on record, taking only 9 hours to reach the distance of the moon but at that speed it still took 9 years just to reach Pluto. Like the still active Voyager I & II spacecraft it has the potential return valuable science monitoring the outer regions of our solar system missions. Also the [Juno mission](#) orbiting Jupiter as well as missions well into development.



Extreme Astrophotography [APOD April 21, 2026](#)

On March 19, 2026, after extensive planning and preparation Swiss astrophotographer, [Angel Fux](#), was airlifted onto a 13,600 ft summit in the Swiss Alps. She spent all night imaging an astounding panorama of both the Winter and Summer Milky Way and the arch of the Zodiacal Light. This

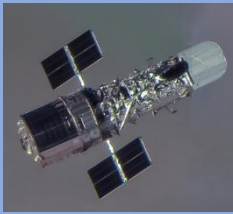
is only possible for a few days in March each year. Many astronomy clubs conduct a Messier Marathon at this time of year to catch as many M Objects as possible in a single night.

Read the [dialogue of her preparation](#) and obstacles she overcame to produce capture this image.



The [Nancy Grace Roman Space Telescope](#) is preparing to be shipped to its launch site in June. The telescope is the size of the Hubble but designed to take images 100 times wider than Hubble in the infrared. It will also be testing a new adjustable occulting disk to hide the light for a star so that scientists can image the surrounding regions to search for exoplanets. Despite being UNDER Budget and ahead of schedule this mission was narrowly saved by Congress from budget cuts last year.

FYI. I got to hear Nancy Grace Roman who was part of a panel of scientists speaking to a teachers' forum in Broken Arrow in November of 1999.



The **Hubble Space Telescope Celebrated its 36th Birthday** since its launch on April 24, 1990, by releasing a [Zoomed in Region of the Trifid Nebula](#) featuring a rich region of star formation. If you scroll to the bottom of the article you can thumb through 20 of its more iconic images. This image of Hubble was taken April 23, 2026, from another satellite passing nearby.

[Hubble Revisits the Trifid Nebula after 30 years](#)

[The Little Probe That Could: Voyager 1](#) and Why NASA Just Switched Part of It Off



On September 5, 1977, NASA launched the Voyager I spacecraft toward Jupiter and Saturn. It swung past Jupiter in March 1979, revealing active volcanoes on the moon Io and close up images of Jupiter. Continuing outward it took amazing images of Saturn and its ring system and made a close flyby of its giant moon Titan. This encounter swung it upward out of the plain of the planet's orbits. Meanwhile its twin Voyager II flying on a slower path flew by Jupiter in Nov. 1979 and Saturn in Aug. 1981. It was then able to continue outward to Uranus in Jan 1986 and Neptune in Aug. 1989. Both Voyagers continued on trajectories that will take them beyond the solar system. On Aug. 25, 2012, Voyager 1 crossed the heliopause — the boundary where the Sun's charged-particle wind gives way to interstellar space — becoming the first human-made object to enter the space between the stars. Its twin, Voyager 2, followed in 2018. **Voyager I is now 15 BILLION miles from Earth.** Light and radio signals traveling at 299,792,458 Km / sec (670 Billion mph) takes **23 hours** one way to reach Earth. I once read that the energy of the radio signal we receive from it is equivalent to that of a fly crawling up a wall at the rate of 1 cm / year!



Astronomers discover the Pleiades star cluster could be [20 times bigger than we thought](#)

Astronomers have discovered that the Seven Sisters of the Pleiades star cluster have more stellar siblings than we thought — a lot more. Using NASA's exoplanet hunting spacecraft TESS (Transiting Exoplanet Survey Satellite) and the European Space Agency star tracking spacecraft Gaia, scientists found that this highly familiar astronomical body contains around 20 times more stars than was previously known



“Remember, not a word about our vast oil reserves”

Cartoon by Mick Stevens

Observing Chairman Brad Young



Back to the Moon By Brad Young

"There is no dark side of the moon, really; matter of fact, it's all dark." - spoken by Gerry O'Driscoll, the Abbey Road Studios doorman where Pink Floyd's Dark Side of the Moon album was made.

While looking over some of my books for ideas for this article, I came across a passage that described flying in a spaceship towards the Sun from above and how we would notice not only the very bright star, but also "eight star-like scattered around the Sun at different distances." We would notice they moved around the Sun in journeys from "three months to more than 160 years." Looking at the book, I noticed that it was far too old to consider the demotion of Pluto. Then it hit me; Astronomy for Everybody was written by Simon Nemcomb in 1902, before the discovery of Pluto. This was fascinating, here was a book written the year before my great-grandmother was born that had no idea Pluto even existed. Between this realization and the excitement of humans returning to the Moon on Artemis II, I have been caught up in the same popular movement of pride again in humans and how we can discover and accomplish fantastic things when we put our minds to it. I was as guilty as anyone of bemoaning the fact that I hadn't seen a moon mission since I was six years old before this one, but it still has rekindled the sense that space travel and exploration are things we can and should do. Perhaps best of all, it has done so readily, especially among younger folks.



Looking back through some of my other books I turned my attention to the beginning of the Space Age and all the wonderful promises that we were given just before I was born and when I was a small child. These books contain descriptions of space stations much larger than the one we have with people living on them full-time in a community that would rival an army base here on Earth. In fact, the first serious discussions of space travel had taken it for granted that men would be the most important payload carried into space. There were all kinds of space vehicles that would be developed not only rovers for the moon and Mars but also quick shuttles to and from the space stations and even tourist adventures like a weekend on the moon.

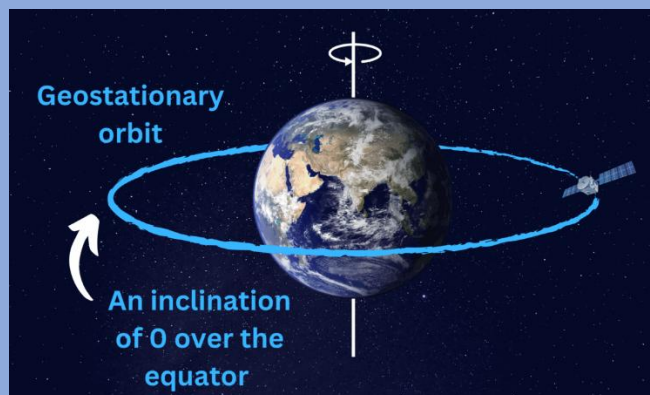


Of course, here on Earth things would continue to adapt and improve, including roadless (not driverless) cars that flew around or were on a sort of magnetic air rail. Of course, all transportation would have their energy needs supplied by nuclear power. Enough uranium was estimated to provide 1955 energy requirements for 2000 years and nuclear waste and accidents were seen as manageable.

*Come, my friends 'tis not too late to seek a newer world.
To sail beyond the sunset, and the baths of all the western stars. Ulysses, Lord Tennyson*

We certainly did accomplish a few of these things, but the emphasis on manned exploration dwindled as visiting the outer planets became paramount. We might have visited every planet in our solar system and even now perhaps be sending people in cryogenic states to a nearby star to explore it and return or report on it from there. Whatever the situation called for, and whatever our curiosity turned to, we would be able to do these things by applying science and by developing a society in which people are rewarded for what they give to mankind, a meritocracy.

In space development, there have been many fantastic choices that turned out to improve our knowledge dramatically. Science in Space, by Berkner and Odishaw, pointed out several ways to use space for science in 1961, and many, including space telescopes useful across the entire electromagnetic spectrum, the study of Earth's structure using tiny fluctuations in the orbit of satellites, life science studies and many more.



As described in the paper, "Can Rocket Stations Give Worldwide Radio Coverage?" Wireless World, October 1945, Arthur C. Clarke shows how geostationary orbits can allow global communication satellites, and later modified orbits support GPS, weather forecasting and much else.

Society changed after the Moon Race, much like the downturn after a gold rush. Government funding dried up, and experts left the industry. The high initial cost of manned space travel, coupled with unfortunate accidents, soured the public's taste for it. And the utopian dreams of weekends visiting Jupiter were soon seen as laughable, not something to strive for.

In addition, poor choices were made. Limiting the manned program to Shuttle flights while also axing many unmanned missions tended to annoy all sides equally. Colonization of the skies with artificial satellites by the world's wealthiest companies threaten our dark skies and even the use of Earth orbit due to possible debris. Of course, it would be simple and a complete waste of your time for me to list all the ways that we have failed to meet the vision of a better world through space in the last sixty years. And remember that some of today's threats to astronomy, such as the on-orbit solar panels transmitting energy down to the ground, started in the late 1970s as the Solar Power Satellite (SPS). [Photo from April 17, 26 APOD](#) of dozens of Starlink satellites in cluttering a comet photo.



Perhaps returning to the Moon, building a permanent base there or going to Mars will help a new generation see the possibilities if we work together and use science as a tool for good. If nothing else, I know that many of the astronomy clubs and the increase in interest in space coincided with the space race and perhaps that will repeat itself in the next few years and give amateur astronomy a much-needed boost. It's also up to us who are currently involved and hold the future of amateur astronomy in our hands to make sure we welcome new people, meet them halfway on issues of equipment technique, etc., and make this an exciting and rewarding hobby populated by people who are interested in making the study of our universe both professionally and individually a priority matter. Amateur astronomy is one of the most popular ways to bring young people to a STEM education, and citizen science is one of the approaches that seems to have great potential to draw a wide group of people to science in a popular way.

Bibliography

[Rocket Dreams](#), Marina Benjamin (2003) p.3-4

"The Earth's Uranium", [Atomic Power](#), Paul F. Kerr (1955) p.69

[Space Resources: Breaking the Bonds of Earth](#), John and Ruth Lewis (1987) p.311-313

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Other sources quoted within article

Observatory Spring Upgrades By John Land

Volunteers have been busy this spring with lots of clean up and improvements to our observatory and its grounds. We especially want to thank all those who helped make the funds for these projects possible by giving memorial gifts in memory of Davis Taggart, Lina May, Steve Chapman and Gerry Andries.

We have purchased a ZWO ASI 294MC full color imaging camera which produces live images from our 14-inch dome telescopes. Allowing us to demonstrate many deep sky wonders for our guests.



Our observatory manager, James Taggart, hired a tree and brush mulching machine to clear out a lot of brush and small trees that have grown up over the years. Left unattended they were beginning to obscure our line of sight to the horizon. Now we have a wide berth of clear space along the North, West and South fencelines.



Several of our members were very busy helping at our Saturday March 28th Observatory Workday. Work was done both inside and outside. There was still lots of work needed to clean out the brush growing in the fences.





L-R Back Row - Ethan Klumpp, Kit Bratt, Skip Whitehurst, Dana Swift, Jerry Cassity,
Dennis McLindon, Bev Strader, Cathy Grounds
Kneeling – Scott Bratt, James Taggart, Jaydyn McLindon, Jack Reeder

A second crew of Cathy, Dennis, Jack, Skip, Scott and Kit came later, on a weekday to get everything cleaned up before our guest night.



We are very pleased to announce that now we have a wide screen TV in the classroom that can be used for instruction, showing off tonight's sky targets and promoting our club activities.

James Taggart installing the new TV

Spoiler Alert – Don't read the movie reviews until you see the movie.

On April 10th an enthusiastic group of members went to see the [Project Hail Mary](#) movie.
(FYI – the “thumbs down” is a inside joke about the alien “Rocky” not getting earth gestures)

Real space science behind 'Project Hail Mary' - <https://apple.news/AMztBWNckRpuEn5artF7EHw>



A Tale of a Very Large Binocular — The VLB?

by Jack Reeder

A piece of gear donated to our club has always been intriguing to me: The Garrett 22 x 100mm binoculars you may have seen in our storage area at the observatory. In its case is a letter stating that the donor is Garrett Optical itself!

Editor Comments: *Garrett Optical was founded by one of our Astronomy Club youth. Zach Garrett began attending our club as a home school high school aged young man. Zach was an inquisitive and creative young man. He built a 5-inch refractor using a commercial lens but homemade the rest of it. After careful research, while still in high school, in 2005 he began his Garrett Binocular company selling a line of high quality but affordable binoculars. He continued his business until he graduated with a business degree from ORU and sold the company to Oberwerk binoculars in 2013. Read more at [Cloudy Nights article](#).*



Almost any binoculars will show you several times as many stars as you can see with your eyes alone. I discovered this many years ago while camping with a buddy. On his advice I looked into the stars with my 8 x 40's and was stunned. Instantly hooked! Try it! It's also a great way to learn the sky while you sample the views through other members' telescopes and make up your mind much more wisely on your next steps.

While all but the smallest binoculars will show you whole new sky vistas, the numbers used to describe them give us hints as to how well they will perform. The first number is the magnification. If you're hand holding, look for magnifications in the 6 to 12 power range. The upper end is for those with extremely steady hands and strong arms, so most users stay around 10x or below. I love my 8's! The lower the magnification, the wider the field of view (FOV) and the easier it is to find and hold a target steady.

The second number is probably more significant for astronomers: the aperture, aka the diameter of the front objective lenses. Think of it as your light gathering device. Your eyes open to around 5-6 mm when dark adapted. If you're looking at the 50mm aperture of an 8 x 50 binocular, remember that light gathering is across the front objective AREA, so that binocular doesn't gather 10 times as much light as your eye, it gathers **100 times as much!** Area = pi x radius squared!

The only catch is it then spreads that bucket of light out by magnifying it at the eyepiece. But narrows your field of view. For us, aperture trumps magnification. If you're considering binoculars for astronomy, get all the aperture you can afford, UNLESS you already have a pair. Then, go with what you've got.

Back to the Garrett's ...

100mm is lots of aperture, to be sure, but it also has a catch: These babies weigh 11 pounds! Totally impractical for hand holding. Call in the tripod! Our club's are mounted on a nice video tripod that moves around easily.



As I tried to use the Garrett binoculars for the first time, I noticed that they had become WAY out of collimation, meaning that the optical systems of the 2 tubes are not lining up parallel with each other. Who can align them? I'm a bit of a mechanic / tinker, but I've since learned that the alignment operation involves disassembling the eyepiece end and adjusting the gimbal-like mechanism that cradles the image-erecting prisms. Way beyond me, so I hit up Google for recommendations. Came up with a few names across the world that do this, but I knew nothing about any of them. Talking with other club members, especially Skip

Whitehurst, narrowed the list to one that had many other references pointing his way in my research — **Cory Suddarth of [Suddarth Optical Repair](#)**

OK, where is he? New York, LA? Chicago? How about **Henryetta, Oklahoma!** As highly recommended as he was, I was apprehensive of what it would cost and how long it would take. I delivered the cased binocular personally, looked over his shop, and prepared for bad news. About \$100, barring unforeseen problems, and 2 weeks. I was very pleased, an understatement.

When they are back with us, the rest of you may have some trouble wrenching them from me! While Cory and I tried to get our schedules aligned for a delivery, I use the binocular in my backyard, with the 26.9mm eyepieces it came with, at about 22x, and a pair of 40mm Plössl's I own at about 15x. It was a bit awkward, having to apply upward pressure on the eyepiece on the left and downward pressure on the right, but I was very positively impressed. At those magnifications, you're not going to see details in the planets, but viewing clusters and smaller constellations was spectacular. There's an almost 3D sensation to the wide, sharp field of view. The Pleiades "7 Sisters"? How about 50! Lunar views, with neutral density filters, will probably be stunning.

Cory and his associates take in repair, reconditioning overhauls, and cleaning projects for telescopes, binoculars, and other optical devices, some from the 1800's. Cory Suddarth began his career as an Optical Technician in the U.S. Navy in 1975. Becoming an Optical Tech was his first choice as a specialization when joining the Navy, showing that this was a passion from the beginning. Following the footsteps of his father, Jack Suddarth, who was an Ophthalmic Technician in Okinawa during his service with the U.S. Army during WW II. Cory's son, Eric, is now taking on optical projects of his own for the business. Cory is a single-point, responsible source for turn-key optical projects, coordinating much of the specialty work such as scratch removal, lens coating, lens polishing, remanufacture, and plating with trusted vendors.

I thought the 100mm Garrett's were big! He had a couple of 120's there, just back from the nickel plater, and has rebuilt other navy-surplus, yoke-mounted binoculars of 150mm size. Those monsters can weigh well over 100 pounds!

All in all, Cory is a fantastic resource for anyone using any optical device. He is experienced, capable, and close enough to deliver delicate devices to personally. He has dealt with clients as far away as Australia. He has worked with our club before on other projects, comes highly recommended, and has even addressed our club meetings on other occasions.

I've now placed him and his business in my personal "Oklahoma Optical Hall of Fame" with Astronomics / Cloudy Nights in Norman. Here's to finding or making others!

Editor NOTE: Cory Suddarth has cleaned, repaired or collimated several instruments for our club and members. These include our 14-inch dome telescope and restoring a giant pair of WW II Japanese Naval binoculars which the club subsequently sold to a collector for \$ 2,500 !

[Suddarth Optical Repair](#)

1408 Briarwood Lane

Henryetta, OK 74437

918 – 652 - 3386

The McDonald Observatory by Jack Reeder



Several months ago, our oldest son, Nathan, and his family asked us to meet them in Big Bend National Park last March for a camping and hiking adventure. Sondra and I had met them there over 2 years ago in the Fall, and it was overcast, rainy, and foggy the entire time we were there! Definitely not what we had envisioned! The last trip was more typical of what most think of Big Bend, although the Spring had just begun and the weather was much more mild. Two other families also joined us, also from Austin, making it that much more fun.

Checking a map two years ago, it's hard not to notice Big Bend's proximity to the [McDonald Observatory](#), near Fort Davis in the Davis Mountains, about 15 winding miles West. But on that first trip, we had to hurry home right as the weather cleared up. This trip, we hit their website several weeks before and reserved a weekend Star Party. Other reservations were possible, but as we found out, actual viewing through the Observatory's HUGE research telescopes had to be made 6-8 months in advance. We later found that our Star Party reservation involved some luck, too, as they are usually made much further out than we experienced. Camping reservations, also, are in high demand at Big Bend NP and Big Bend Ranch State Park and are needed far ahead of your departure.

The observatory is a remote campus of the University of Texas in Austin. UT Austin, Pennsylvania State, and two German universities participate in a consortium which operates the largest telescopes on the site. The observatory employs a year-round staff of several dozen operators, maintenance, and related support personnel. The astronomers doing the research projects seldom stay at the facility longer than a week.

We did get a daytime tour of some of the facilities at the observatory site. Lots of interesting research projects, including a Dark Energy survey, a great visitor center museum, and a view of their 10-meter premier research instrument, the Hobby-Eberly telescope. That scope had an interesting tracking mechanism on the secondary mirror which allowed long target tracking while the main scope, according to the tour guide, only moved in the azimuth. Perhaps that mechanism is to counter the image rotation inherent in altitude-azimuth mountings. My understanding of this mechanism would undoubtedly improve if I could see it in action.

The Star Party was attended by about 200 people and started with a brief astronomy talk by a staff specialist. It was conducted in a circular amphitheater-like permanent structure dedicated to this and similar public presentations. After the presentation, we queued up at several telescopes set up in their dedicated telescope park. Their chosen targets were typical of this time of year: Jupiter, the Pleiades, M47 open cluster in Canis Major, the M108 + 109 galaxy pair in Ursa Major, and the Orion Nebula. A thought at the time was that these targets were almost identical to the ones a fellow amateur from Dallas and I had shown to whoever would look at our campground two nights before, in skies almost as dark. Of course, the views were much better through the observatory's two piered, domed scopes, but the lines were 20-30 minutes long for a brief look. Slightly shorter waits were lined up at the remaining staff-owned scopes comparable to many of ACT members' equipment.

Net judgement: I'd go again IF I could secure reservations to see and even briefly view through McDonald Observatory's huge research telescopes. The Star Party was fun and did offer opportunities to speak with fellow astronomers, but considering the trip from Tulsa, about 675 miles, I would not visit again just for that and the daytime tour.

On the plus side, the McDonald Observatory organization as a whole reveres their relationship with the public. That could be viewed as a necessary evil for them, but instead the facility is designed around encouraging support and enthusiasm for astronomy among a wide age range. The staff members all

welcomed questions, and several times we saw them engage younger children at eye level. The facility is well maintained and was very clean. It's definitely worth a visit if you're in that area. Make those reservations EARLY!

We did have some excitement on the way back to our hotel that night. In the glare of my headlights, I saw the silhouette of a very large spider and realized it was advancing toward me on the inside of the windshield! Sondra tells a much more enthusiastic story than I care to relate here, but let's just say I made it very quickly to a wide spot on the road shoulder and smacked the unfortunate arachnid with the back of my hand at about eye level. He was about five fingers wide — wouldn't that make him 10°? Nyuck, nyuck.



The Visitor Center,
Star Party Grounds in the Midground

The 107-inch [Harlan J Smith Telescope](#)
on Mount Fowlkes
Which uniquely has several bullet holes
in the primary mirror

Each year the Texas Star Party <https://texasstarparty.org/> is held at the [Prude Guest Ranch](#) just a few miles down the hill from the observatory. Attendees can register for a behind the scenes tour of the observatory telescopes including the [Hobby-Eberly](#) 433-inch multimirror telescope
This year's event is May 10 -17 See our [April 2026](#) Newsletter for more details

Treasurer Report Cathy Grounds



As of April, 2026, we have **148** members with **15** new members this year.

Please welcome new members David Stanek, Wallace Dusenbury,

Kacy Luker, Charles Noble and Brad & Dora Gibson.

As of March 2026, we have 152 members. Please welcome our newest members David and Laura States, Pedro Orta, Dale Dermott, Joy Panell, Ethan Klumpp, and Jamey McDaniel!

FAQ: How do I know when to pay my dues? You will receive a notice by email when it is time to renew your membership. Look for it on or around the 1st of the month in which your membership expires. If you are not sure just check with the treasurer.

Don't forget these easy methods to Join or Renew your membership:

<https://www.astrotulsa.com/join> – see the “join” tab at the upper right

1. PayPal (click “join/renew” on the website) and follow the prompts, there is small fee.
2. Mail in a check or money order to
Astronomy Club of Tulsa, PO Box 470611, Tulsa, OK 74147.
3. Direct your bank's bill pay service to send payment to our PO Box address above.
4. Pay cash at any club event or swipe a credit card (there is roughly a 3% service charge).

As always if you have any questions or concerns or if your email, phone, or mailing address has changed please email me at: AstroTulsa.Tres@gmail.com

Membership rates for 2025-2026 are as follows: All include an Astronomical League Membership and you will receive their magazine *The Reflector* each quarter.

Adults: **\$50 per year**

Sr Adult: **\$40 per year** (65 or older).

Students: **\$40 per year**

Additional Family membership: **\$30 including voting rights.**

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- You can see subscription info on the “Join” tab at www.astrotulsa.com.

You can get a discount rate as an Astronomy Club member.

However, you will need to do so directly using their discount rate web links.

Both have options for DIGITAL as well as PRINT subscriptions.

To learn about [Sky and Telescope magazine](#) see their home page

Digital \$ 37.05 Print & Digital \$ 45.75 includes a \$ 10 club discount

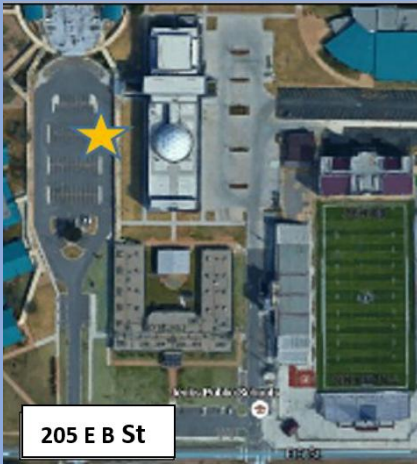
Use this [Sky & Telescope Subscription Link](#)

To learn about [Astronomy magazine](#) see their home page

Use this [Astronomy Subscription Link](#) Digital \$ 39.95 Print & Digital \$ 49.95 no club discount

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

Check the EVENTS section at <https://www.astrotulsa.com/>



During the school year our club holds a
**Monthly General Club meetings at
Jenks Public Schools Planetarium**

[205 East B St, Jenks, OK](https://www.astrotulsa.com/)

Meetings begin at 7:00 PM

Guests are Welcome

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



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.

GUEST OBSERVING NIGHT – RSVP requested

This event is open to our Guests – both individuals and
families as well as our regular members. Several of our club
members set up telescopes 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.

Check the **EVENTS** section at <https://www.astrotulsa.com/>

Follow our map directions **DO NOT USE GPS**

Two Options for travel to the observatory

[MOSTLY PAVED ROADS](#) – Hwy 75 to 201st St S – through Mounds OK

Most **[DIRECT ROUTE](#)** – Hwy 75 to 241st St S – some coarse gravel & dirt roads

ASTRONOMY CLUB OFFICERS:

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To Send a Message to any of the
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or click the CONTACT tab
on the top of our website

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NIGHT SKY NETWORK – SCOTT BRATT



Enjoy at Planetarium Show at Jenks High School

Jenks High School Campus
205 East B Street, Jenks

TICKETS are \$7

See our Current Shows Schedule
and ticket purchase links at
[Shows and Ticket Link](#)

Shows take place on Tuesday evenings
or Saturday mornings
Must purchase tickets online in advance
[Shows and Ticket Link](#)

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