

OBSERVER

JUNE 2025

Bringing Stars to the eyes of Tulsasince 1937Editor - John Land





The Spring and early Summer skies are filled with Galaxies

Tim Gilliland took this image of M 106 & NGC 4248 on March 27, 2025 Located in Canes Venatici - M106 lies at a distance of 25 million light years. Although Pierre Mechain discovered it in 1781 it was not added to the Messier catalog until 1947. Tim made this image with his 11" Celestron EdgeHD from his observatory N of Keystone Lake. Image is a composite made with R, G, B and UV/IR cut filters with a total of 7 hrs 15 min of exposures. Page 6 has a locater chart for M 106 and 10 more Messier objects.

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GET YOUR RESERVATIONS IN ASAP

2025 MidStates Regional Astronomy Conference June 13 to 15

The 2025 MSRAL Conference will be on the Little Rock University of Arkansas campus. This year's host is the Central Arkansas Astronomical Society. Our Tulsa club hosted the June 2023 MSRAL Conference. They already have an impressive lineup of 15 speakers and activities posted on their website. The Friday evening *"Pisces Fry"* meal is going to be held at their River Ridge Observatory along with some observing.

The Keynote Speaker is William I. Hartkopf, Ph.D.:

History of the U.S. Naval Observatory and its 26-inch Alvin-Clark Refractor

The MSRAL 2025 Conference website, which contains information about the conference as well as a link to register, can be found at https://msral2025.caasastro.org/index.php

GET YOUR RESERVATIONS IN ASAP

2025 National Astronomical League convention June 25 to 28

The ASTROCON 2025 will take place in the scenic Bryce Canyon National Park of Utah.

The convention is taking place during the new moon so guests can enjoy the incredible dark skies of Bryce Canyon. In addition to the dark skies Bryce Canyon is noted for its beautiful unique geological landscape features. They have a several notable speakers lined up as well as some interesting workshops. Several astronomy equipment vendors will likely have displays set up.

Check out the details at https://astrocon2025.org/ Reservation space is limited.

RESERVATIONS due in August – get yours in early

Okie-Tex Star Party Sept 19 – 27 <u>https://www.okie-tex.com/index.php</u>

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 by August 31, 2025

Stargazing Nights and Observatory Nights

Our GUESTS & Members nights are open to anyone. We do ask guests to try to RSVP. Large groups need to make separate arrangements.

Members Only Nights are Open to members and their family Details, Times and Direction Maps are posted on our Website <u>https://www.astrotulsa.com/events</u>

Guest and member Observatory nights



Come enjoy an evening of star gazing at our observatory located in darker rural skies.

See details and directions on our <u>Website Events Page</u> Guests are requested to RSVP

Friday June 20 - 8:10 PM Guest & Members Observatory Night Friday July 18 - 8:10 PM Guest & Members Observatory Night. Friday Aug 15 - 7:40 PM Guest & Members Observatory Night



Astronomy Club Members Nights

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

Friday July 25 - 8:00 PM Friday July 25 - 8:00 PM Friday Aug 22 - 7:30 PM 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

Special Free Public Events Friday May 30 Time 8:00 to 10:00 PM CDT Telescope Viewing Night at Hunter Park

Our astronomy club volunteers will have telescopes set up for you to enjoy views of the Moon, Jupiter and Mars as well as other objects in the night sky. We would also invite anyone to bring their own telescope to set up and receive help from our club members.

Saturday June 7 Time 11:00 AM to 1:00 PM CDT

Solar Telescope Viewing at Hunter Park.

Our astronomy club volunteers will have specially filtered solar viewing telescopes set up so you can come see the active regions on our nearest star - **The SUN !** Our sun is undergoing an active period with frequent large sunspot regions.

The entrance to Hunter Park is located off 91st Street between Yale and Sheridan.

See google map > (5804 E 91st ST)

See full Event details and directions at https://www.astrotulsa.com/events

President's Message Jonathan Fussell



Summer is almost here—and with it comes some of the best nights to stargaze, connect, and share the cosmos with our community.

We have an exciting month ahead, and I hope to see many of you out under the stars! We'll be hosting public astronomy events at Hunter Park on Thursday, May 30 from 8:00 pm-10:00 pm and again on Friday, June 7 from 11 am-1 pm at our Solar viewing opportunity both at Hunter Park. Both great opportunities to volunteer, meet fellow enthusiasts, and introduce others to the night sky.

Then mark your calendars for Thursday, June 13—our next Guest Night at the observatory, gates opening at 8:10pm. It's shaping up to be another great evening of telescope tours, learning, and community outreach.

Summer is a beautiful time for astronomy. The nights may be warm, but the skies are brimming with deep-sky treasures—especially galaxies. From the graceful whirl of the Whirlpool Galaxy (M51) to the massive elliptical giant of M 87, now is a fantastic time to train your scope toward distant galaxies beyond our Milky Way. Don't be afraid to experiment and push your gear a little—you might surprise yourself!

If you've been thinking about volunteering at one of our events, now is the perfect time to jump in. Whether you're a seasoned observer or still learning your way around a telescope, your enthusiasm and presence make a huge difference.

Here's to clear skies, bright stars, and another great summer of astronomy in Tulsa.

Clear skies,

Astronomy Club of Tulsa "Bringing Stars to the Eyes of Tulsa since 1937" Jonathan Fussell - President



Click on these images to links on the Internet

*** The **CLEAR OUTSIDE** icon above is a link to an extensive site showing cloud cover %,



Seeing, Transparency, Moon Phase, Temp in ^o 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 <u>Website Observation Station</u> for a collection of <u>Interactive Sky Watching Tools</u> Moon phases - Sun rise & Set - <u>Make your own custom interactive sky chart</u> and more Great website for printable Finder Charts of Solar System objects <u>https://in-the-sky.org/</u>

JUNE - Moon Phases - -

1st Q Mon June 2 -- Full Weds June 11 -- 3rd Q Weds June 18 -- New Weds June 25

Lunar conjunctions – Evening Mercury June 26 Mars June 29 Morning Saturn & Neptune June 18-19 Venus June 22

June 20 @ 21:42 CDT -SUMMER SOLSTICE- when Sun reaches its Maximum Declination North Tulsa area will have 14 hrs 36 min of daylight and only 9 hrs 24 min of night See page 13 for article about Seasons on other Planets

Mercury makes a nice evening appearance in June as it moves from Gemini into Cancer. On July 3rd it will be 26 degrees separation from the Sun. Search the NW horizon for it yellowish glow. On June 7 it will be about 2.5 degrees from Jupiter low on the horizon just after sunset. On July 2nd & 3rd Mercury will pass just below M 44 the Beehive Cluster. Look for MARS within 2 degrees of the double star Regulus in Leo on June 15 thru 17

Saturn & Neptune are in close proximity in the morning sky lying within 2 degrees from early June to late July. **Venus** is our bright morning planet throughout the summer and autumn. It reaches it maximum solar elongation of 35^o on Aug 15th.

Three opportunities to view morning Shadow Transits of Saturn's moon Titan on May 31, June 16 and July 2. See the bottom of page 16 in our <u>May Newsletter</u> for details and a

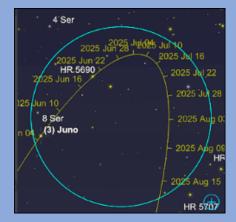


Table of Titan shadow transit dates.

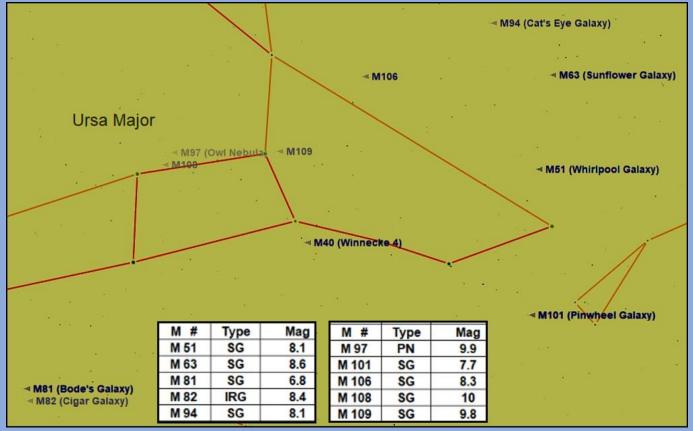
Two Asteroids to follow with binoculars for small telescopes. 10th Mag asteroid 3 Juno is approaching opposition on July 26 in the constellation of Serpens. The image shows its position in a 5degree FOV typical of binoculars or finder scopes. Find it in a wide field eyepiece and sketch the surrounding stars. Then repeat your observation a couple of nights later.

6.5 Mag asteroid 4 Vesta reached opposition May 2. It is a fairly easy object to find in the western leg of Virgo. The <u>Astronomical</u> <u>League has an Asteroid Certificate</u> program for locating 25 asteroids that you may want to pursue.

See <u>https://astro.vanbuitenen.nl/asteroids</u> for current details and locations on the brighter asteroids.

Dipper Full of Deep Sky Treasures by John Land

The constellation Ursa Major rides high overhead in late spring and early summer. It is easily located by looking for its well-known asterism, the Big Dipper' hanging upside down high in the north. Eleven Messier Catalog objects can be found here which are accessible to smaller or midsize telescopes in the rural sky from our observatory. Many other dimmer New General Catalog – NGC – objects also can be found in the region.



The data table above shows that most of the objects are **S**piral **G**alaxies. M 82 is an active **Ir**regular galaxy and M 97 is a nice Planetary Nebula. M 40 is a bit of a mystery as it is only a double star. Messier was searching for a nebula reported the area by astronomer Johann Hevelius. He didn't see a nebula but included this optical double star in his catalog. If you've never done the Messier Certificate program this is good time to start and earn one to the many Observing Certificates offered by the Astronomical League.



Ursa Major lies near the North Galactic Pole, NGP, in the nearby constellation of Coma Bernices. Using data for over a billion stars from ESA's Gaia mission computers have created this Edge on View of our Milky Way Galaxy. In the summer of 1995, Robert Williams, then director of the Hubble Space Telescope Science Institute, made the bold proposal to image a seemly empty spot of sky in Ursa Major for 100 hours over a 10-day period. The final Deep Field image assembled 342 separate images to reveal 10,000 galaxies in a tiny region covering about 1/500 of a degree. Since that seminal image an Ultra Deep Field image was made in 2004 and an Infrared Ultra

Deep Field image in 2010. The James Web Space Telescope is pushing back the frontiers of space even further. See Image Chart image.

Explore higher resolution images and a Zoom in Video here.

Observing Chairman Brad Young



Immersion in Astronomy

"The world around us is indeed beautiful and mysterious if we only can learn how to observe its many wonders. All the sights in the sky are ours free for seeing. To let them slip by and not notice is to miss part of life." <u>Rainbows Mirages and Sun Dogs: The Sky as a Source of Wonder</u>, Roy A. Gallant, page 88.

Immersion is a popular term in video games and other Interactive entertainment where the person feels completely involved in the world or subject matter, they are interested in. It is usually technically based, but often unnecessary technology is eschewed during the game or experience. For instance, if you go on an immersion holiday, cell phones are usually not allowed and only the basic needs are taken care of by technology. The idea is not always to ignore technology (you can't play a video game without it), but instead to minimize outside influences on your experience.



Amateur astronomy has grown more reliant on innovative systems and computer control than ever before. I've certainly given my opinion on that before and realize that it is the future. However, what can be a great aid to your experience can also get in the way. Constantly tweaking and setting up your equipment under dark skies can be frustrating for some. And for others, the idea of having long, philosophical discussions while the night wears on ("burning darkness") may be fun, but some of us just want to look at the sky. We try to enjoy what we are there to do and not think at all about anything other than the enormous wealth of beauty above us.

Of course, there are folks who enjoy the social and technical aspects. It's not that they should be ignored, that's just not the focus for many observers when there is a clear sky. You may find as part of your expanded immersion increased participation in public outreach, education, club activities and so on. These too can form enjoyable expansion in your hobby. And, in a way, even the most public event can be immersive if you allow interaction to be your prime focus for one astronomy night. Showing people beautiful objects in the sky, discussing them and motivating them to look for themselves with their own equipment - even just casual stargazing - can be incredible experience. Don't think the only immersive activity you can enjoy is standing alone in the middle of a dark field somewhere.

Stages of Immersion

This brings up the need to clarify the differences and similarity of "chronic" immersion (overall in your daily life) and that of "acute" immersion on a single night, star party or another event. The fact is that most people can immerse themselves in astronomy only on a few weekends a year. Besides the usual issues of weather, moonlight, other natural causes, our social, work, and family lives also limit the time we can put into our hobbies. Later in life, after retirement or other increase in leisure time, it becomes possible to spend much more time on amateur work and branch out into new subjects or deeper into ones already enjoyed.

"The greatest reward is not in seeing something unusual but in realizing that it is unusual. This serendipitous state cannot be achieved overnight. You must acquaint yourself with the everyday before you are in a position to notice the unusual. This takes time, patience, and a certain amount of commitment, though it's never a chore. In fact, that's part of the fun." <u>Out of the Blue - A 24-hour Skywatchers Guide</u>, John Naylor, page 4

The way to prepare and best enjoy short term "acute" immersion has been well documented by books discussing equipment, backup plans, observing lists, dark adaptation, etc. and I won't revisit that subject much here. One thing to bear in mind though is that when you are ready to put more time in, it would be better if you have already tried a few different types of observing, or objects, equipment, club or outreach activities, etc. just so you know what interests you. Doesn't mean you can't try something new in the "chronic" phase of your hobby, but you will be better prepared if you've tried a few different ways and objects. So, when there is more time to spend on astronomy, you will find there are plenty of activities to keep busy at, if you are willing to make some changes to your lifestyle.



Outreach / Educating Others / Citizen Science

"Education is not the filling of a pail, but the lighting of a fire." – W.B. Yeats

Not everyone can teach in a professional setting. However, with astronomy, we can often teach by sharing our experiences, mentoring others on techniques, and other training level education. There is also the very real and enduring value of public outreach. Young people, city bound folks, and others who are not able to enjoy the sky directly will always find joy in seeing Saturn for the first time in a scope, or the moons of Jupiter, etc.

Another activity to "lose" yourself in is citizen science. If you commit to helping look for new asteroids, time occultations by the moon or asteroids, report the brightness of variable stars, or search for exoplanets, there is enough to do to fill anyone's free time. Even by including the passive activities on websites like Zooniverse, or processing raw images from Hubble or James Webb, citizen science can become a nice addition to your experiences. Often, these types of observations and reporting may include teams if you prefer. You may never meet other amateurs in person, but global team building may have many benefits. You may increase the depth of your astronomy involvement and learn about other people in other places and how they view the sky.

Working alone or with many, adding to the wealth of human knowledge about the cosmos via citizen science means something. For me, it has been a most enjoyable addition, late in my lifelong hobby.

Searching for new asteroids or dangerous ones not only increases our safety but may lead to resources that can be mined here in our solar system. Studying variable stars led to the understanding of galaxy formation, thus the Big Bang, and the fundamentals of cosmology from there. Specific techniques from eclipsing variable star studies and asteroid occultations are used to search for exoplanets that may represent our best way of finding other life, if it exists.

Travel to Other Sites, Star Parties, and Hemispheres

"Dead giveaways for [amateur] astronomers on their way to a [star party] include…people carrying incongruously warm clothes for the environment, or anyone who looks suspiciously awake late at night." <u>The Last Stargazers</u>, Emily Levesque, page 56.

Whereas in our busy career and family building years we may not have time to travel, later we may heed the call of the other hemisphere or of famous events or dark sky sites. Astro tourism may include not just star parties, but also chasing eclipses, visiting observatories, or other historical or scientific points of interest. Conventions, equipment workshops, imaging courses, and other group settings allow us to meet kindred spirits and develop lifelong friendships with people who share our interests. Perhaps the most rewarding of all is going to the other hemisphere (e.g. southern if you are from the north) to view objects invisible to you at home.

Study Ancient Astronomy / Other Cultures

"We have seen how the Earth is only a speck in space; we now see that our lives, and indeed the whole of human history, are only a speck in time." <u>The Stars in Their Courses</u>, Sir James Jeans, page 91

Amateur astronomy may have begun as much as 30,000 years ago; there is evidence of drawings from that period that indicate knowledge of the sky. Spirituality also began to co-evolve with the ideas involved, and this may explain why these cultural developments occurred at similar stages in our development.

"The study of ancient astronomy is therefore not limited to the purely technical matter of how prehistoric observations were carried out the most interesting question is how the skywatchers connected their skills with both everyday needs and spiritual impulses by trying to reconstruct their sky visions we gain an insight into how people in the distant past regarded themselves as well as the natural surroundings in which they found themselves." <u>Early Man and the Cosmos.</u> Evan Hadingham, page 5.

Studying how astronomy began therefore helps us understand how man evolved as he did. Astronomy affected many parts of our culture, some of which we see traced in artifacts, others in myths and legends. Of course, the development of agriculture, the main achievement of this epoch, was made possible by clocking the seasons via astrological predictions based on calendar stones and other sources of timekeeping.

"What caused primitive man to raise his eyes from the earth toward the sky above him? To maintain himself he had to fight for his existence incessantly against the hostile powers of nature. Science originated not from an abstract urge for the truth and knowledge. It is a part of living and is a spontaneous practice born of social needs." <u>A History of Astronomy</u>, A. Pannekoek, page 19. Maps and exploration may have been adapted hand in hand from studying the stars to surveying the earth.

"Star maps were another technique developed by nations to aid travel. Australian Aborigine societies used patterns of stars to represent routes of travel on land for example each star in the constellation refers to a specific landmark on the ground while the pattern indicates directions.

First Knowledges - Astronomy: Sky Country, edited by Margo Neale, page 98.

Enduring Legacy and Unique Personal Experience

"The brain is a physical system. Its activity is well described by physical law. But while states of the brain are the states of a physical system, experiences are the states of an immaterial system (call it the soul). States of the brain are observable by anyone with the right equipment. States of a soul are detectable only by its possessor. Science describes the public universe, but the soul is accessible only to its own subject. Experience will never be described by objective science." <u>Consciousness - A User's Guide</u>, Adam Zeman, page 307.

Immersion in amateur astronomy can be the hobbyist staying up late a few nights a year and buying a telescope. Or you can put in more, especially time and effort, and become much more deeply involved. If you have the time and drive to do so and can make the relationships and demands you have work with it, modifying your way of life to suit a deeper immersion in astronomy could prove to be very satisfying. You will enjoy the unique experience only you will ever have in the hobby, but can also make lasting contributions to human knowledge, your club and friends, and influence the next generation coming behind you.

For Sale

8-inch Celestron Advanced Astro Master Telescope - Mid 90's era scope Sturdy EQ fork mount - Accessories and case – Original Owner's Manual Plus, like new TeleVue 17 & 13 mm eyepieces Asking \$ 300 Contact Jim Powell 918-629-2503 jim.powell@cox.net





A great evening of telescope viewing at Case Community Center in Sand Springs. See all the fun on Scott Bratt's video collection of pictures from of the event.





Treasurer Report Cathy Grounds

As of May 20, 2025, we have 177 members with 22 new members so far this year! Please welcome our newest members Conner Mathis, David and Lisa Tarzia and Paul Stanton!

How do I know when to pay my dues? You will receive a notice by email that 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 you are always welcome to check with the treasurer.

Accounts as of May 20th, 2025:

 Checking:
 \$ 4,336.79

 Savings:
 \$ 7,695.76

 Investments:
 \$ 39,467.70
 (value fluctuates with markets).

Don't forget these easy methods to join or renew your membership: <u>https://www.astrotulsa.com/join – see the "join" tab at the upper right</u>

- 1. PayPal (click "join/renew" on the website) and follow the prompts, there is small fee. (You can use any major credit card - you don't need a PayPal account)
- 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 postal address has changed please email me at: <u>AstroTulsa.Tres@gmail.com</u>

Membership rates for 2024 - 2025 are as follows:

Adults: \$ 50 per year includes Astronomical League Membership.

Sr Adult: \$ 40 per year for those 65 or older, includes Astro League Membership.

Students: \$ 40 per year includes Astronomical League Membership.

Additional Family membership: \$ 30 with voting rights and Astro 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- You can see subscription info on the "Join" tab at <u>www.astrotulsa.com</u>. You can get a discount rate as an Astronomy Club member. You will need to do so directly using their web links below to make your subscription

To learn about <u>Sky and Telescope magazine</u> see their home page Digital \$ 37.05 Print & Digital \$ 45.75 includes a \$ 10 club discount Use this <u>Sky & Telescope Subscription Link</u>

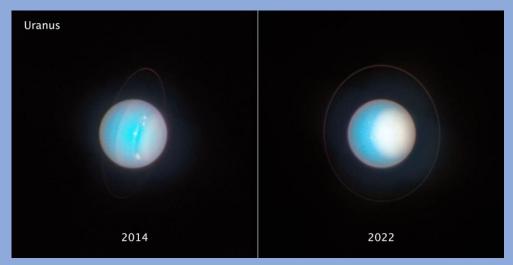
To learn about <u>Astronomy magazine</u> see their home page Use this <u>Astronomy Subscription Link</u> Digital \$ 39.95 Print & Digital \$ 49.95 no club discount



This article is distributed by NASA's Night Sky Network (NSN).

The NSN program supports astronomy clubs across the USA dedicated to astronomy outreach. Visit <u>go.nasa.gov/nightskynetwork</u> to find local clubs, events, and more!

Seasons of the Solar System By: Kat Troche

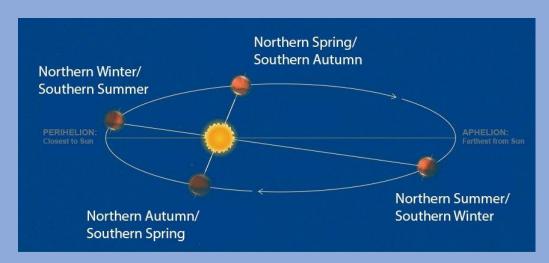


Uranus rolls on its side with an 84-year orbit and a tilt just 8° off its orbital plane. Its odd tilt may be from a lost moon or giant impacts. Each pole gets 42 years of sunlight or darkness. Voyager 2 saw the south pole lit; now Hubble sees the north pole facing the Sun. Credit: NASA, ESA, STScI, Amy Simon (NASA-GSFC), Michael Wong (UC Berkeley); Image Processing: Joseph DePasquale (STScI)

Here on Earth, we undergo a changing of seasons every three months. But what about the rest of the Solar System? What does a sunny day on Mars look like? How long would a winter on Neptune be? Let's take a tour of some other planets and ask ourselves what seasons might look like there.

Martian Autumn

Although Mars and Earth have nearly identical axial tilts, a year on Mars lasts 687 Earth days (nearly 2 Earth years) due to its average distance of 142 million miles from the Sun, making it late autumn on the red planet. This distance and a thin atmosphere make it less than perfect sweater weather. A recent weather report from Gale Crater boasted a high of -18 degrees Fahrenheit for the week of May 20, 2025.

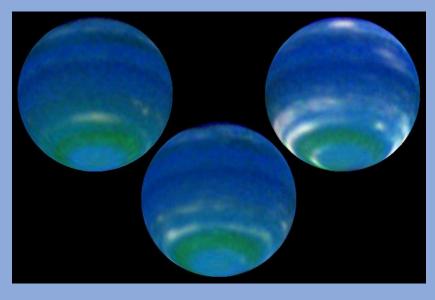


An artist's rendition of Mars' orbit around the Sun, and its seasons. Credit: NASA/JPL-Caltech

Seven Years of Summer

Saturn has a 27-degree tilt, very similar to the 25-degree tilt of Mars and the 23-degree tilt of Earth. But that is where the similarities end. With a 29-year orbit, a single season on the ringed planet lasts seven years. While we can't experience <u>a Saturnian season</u>, we can observe a <u>ring plane crossing</u> here on Earth instead. The most recent plane crossing took place in March 2025, allowing us to see Saturn's rings 'disappear' from view.

A Lifetime of Spring



NASA Hubble Space Telescope observations in August 2002 show that Neptune's brightness has increased significantly since 1996. The rise is due to an increase in the amount of clouds observed in the planet's southern hemisphere. Credit: NASA, L. Sromovsky, and P. Fry (University of Wisconsin-Madison)

Even further away from the Sun, each season on Neptune lasts over 40 years. Although changes are slower and less dramatic than on Earth, scientists have observed seasonal activity in Neptune's atmosphere. <u>These images</u> were taken between 1996 and 2002 with the Hubble Space Telescope, with brightness in the southern hemisphere indicating seasonal change.

As we welcome summer here on Earth, you can build a <u>Suntrack</u> model that helps demonstrate the path the Sun takes through the sky during the seasons. You can find even more fun activities and resources like this model on NASA's <u>Wavelength and Energy</u> activity.



Rare Uranus Event Offers a Glimpse Into Its Atmosphere

On April 7, Uranus moved perfectly between Earth and a distant star, creating a rare cosmic event known as a stellar occultation. But for NASA scientists, this wasn't just a beautiful alignment. It was a golden opportunity to study the mysterious ice giant in ways we haven't been able to in over 30 years.

https://scitechdaily.com/nasa-just-got-a-rare-look-inside-uranus-hereswhat-they-found/

You are invited to come 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 Located North of the intersection of 1st and B St

Meetings begin at 7:00 PM

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

Click for Google Map Link

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 <u>https://www.astrotulsa.com/</u> 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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SECRETARY – SKIP WHITEHURST astrotulsa.secy@gmail.com

TREASURER – CATHY GROUNDS astrotulsa.tres@gmail.com

You may also contact club officers or board members using the CONTACT tab on our website

BOARD MEMBERS-AT-LARGE:

MIKE BLAYLOCK DON BRADFORD JERRY CASSITY BRYAN KYLE JOHN LAND JACK REEDER JAMES TAGGART BRAD YOUNG

STAFF:

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Public Facebook Page Coordinator

- Cathy Grounds

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SIDEWALK ASTRONOMY - TIM GILLILAND

PR AND OUTREACH – Open Position GROUP DIRECTOR – Open Position

NIGHT SKY NETWORK – Jonathan Fussell

Enjoy at Planetarium Show at Jenks High School

JENKS PLANETARIUM



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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