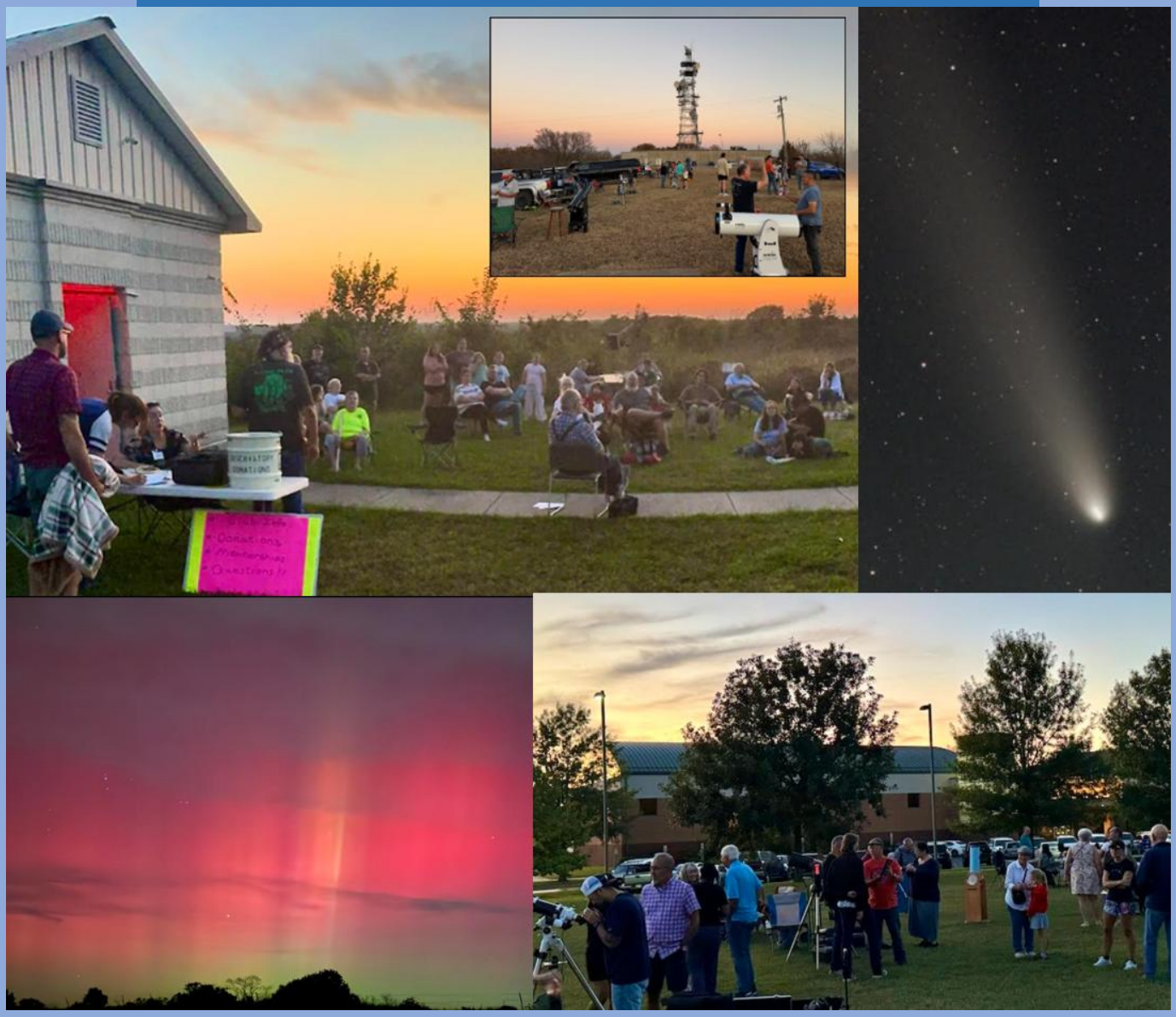
ASTRONOMY CLUB 89 Yrs OF TULSA

OBSERVER

JANUARY 2026

Bringing Stars to the eyes of Tulsa since 1937

Editor – John Land



Some of the many sights and activities of 2025

Guests & Members enjoyed star gazing at the observatory. We had several public viewing events at Case Community Center, Hunter Park in Tulsa and Keystone Ancient Forest

The sky treated us with several comets, Saturn rings seen edge on, March lunar eclipse and pleasing views of Stars, Planets, Nebula and Galaxies and topped it all off with a November Aurora display in our Tulsa skies.

At our Jenks meetings we enjoyed guest speakers, Mike Simmons - *Astronomers Without Borders,* Liam Yanulis - X-Ray Astronomy, Jonathan Fussel – Prebiotic Networks, Mike Grogan FOX 23 meteorologist, Dr. Graham "The Panzoic Effect

Telescope 101 Workshop Saturday Feb 7, 2026, from 10:30 AM to 1:00 PM

Do you have a New Telescope ? (Or an old one gathering dust)
Want some help learning to use it? Bring your telescope and let us help you.
Participants can register for a 30 min individualized hands-on help session.
See details at https://www.astrotulsa.com/event/2026-02-07-TASM-Workshop

Friday Jan 9 – 7:00 PM our Monthly Club meeting at Jenks High School – Guests Welcome

Brad Young will be our guest presenter telling us about completing his years long quest to observe and sketch the 7000 plus celestial sights in the New General Catalog (NGC objects)
See his article on page 6

Also member John Cameron will share a PowerPoint about his trip to STARMUS 2025 in La Palma on the Canary Islands in the Atlantic

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 https://www.astrotulsa.com/events

Guest and member Observatory nights

Come enjoy an evening of star gazing at our observatory I
See details and directions on our Website Events Page
Guests are requested to RSVP

Saturday Jan 10 - 4:45 PM Guest & Members Observatory Night
Saturday Feb 7 - 5:30 PM Guest & Members Observatory Nigh

Astronomy Club Members Nights

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

Friday Jan 16 - 4:45 PM Members Observatory Night
Friday Feb 13 - 5:30 PM Members Observatory Night
If a Friday event must be cancelled due to weather, we will try on Saturday at the same time
- Always check the website for event updates

Salutations and Happy New Year!

I hope you all had a restful holiday season and are looking forward to what the months ahead have in store. As we begin 2026, I'm feeling incredibly optimistic about the direction of the club and the progress we're making together.

In early December, some members and participants of the telescope upgrade committee gathered to test our newly purchased **ZWO ASI294MC (color) camera**. While thick cloud cover limited the night's observing, we were still able to briefly capture Vega with the new hardware- a first light success! As Dana Swift summed it up best in true Dana fashion, *"We at least know the camera is working, and the computer is working."* It was an encouraging milestone and a solid step forward in modernizing our observatory and outreach capabilities.

On another front, our ongoing "rebranding" efforts are coming together swimmingly. With the official handoff of our social media presence to **Gibson Brasel** and our website now under the care of **Scott Bratt**, the club's digital outreach and visibility are beginning to take shape in an exciting way. We've also launched our new Instagram page — **@tulsa.astronomyclub** — which will help us share club news, events, and astrophotography with a broader audience than ever before.

Looking ahead to January, we have a full schedule of events beginning with Winter Fest on Saturday January 2 at Case Community Center, our Club Meeting at the planetarium on January 9th, followed by our Guest Night at the observatory on January 10th. Later in the month, we'll host a Members Night on Friday, January 16th. As we look into February, our Telescope 101 Workshop at the Tulsa Air & Space Museum is scheduled for Saturday February 7th followed by a Guest Observatory Night that evening.
More details here: TELESCOPE WORKSHOP EVENT:

Finally, I'd like to extend a warm welcome to the new members who joined us in December:
Greg Lasiter, Joel Hovis, Andrew Selfridge, Warren Grigsby,
Josh Turley, Jason Farque, David Atkins and Chad Malone!
Welcome aboard! If you see them at a meeting or observing night, please take a moment to introduce yourself and help make them feel at home.

Thank you all for your continued support, enthusiasm, and dedication. Here's to clear skies and an exciting year ahead.

Clear skies and Happy New Year,
Jonathan Fussell - President

Astronomy Club of Tulsa

"Bringing Stars to the Eyes of Tulsa since 1937"

Congratulations to Judy Lieser on her 90th birthday

Our long-time member, Judy Lieser, will turn 90 on January 18. Judy and her husband Bob started coming to Astronomy Club meetings in the mid-1970s. At that time, we were meeting in a sound recording studio on Columbia south of 41st ST owned by Art Sweeny. Along with their son, Bob, *(known as Bobby then)* they were regulars at our club meetings and observing sessions. Judy's son shares a memorable meeting when the club showed the NASA film "Universe," narrated by William Shatner. I remember thinking, "Hey, that's Captain Kirk!"

Judy met her husband Bob in 1966 when she went to the library for information on HAM radios. They were married for 54 years before his passing in March of 2021. Bob worked in the Reference Section of the main Tulsa County Library. Long before Internet, if you wanted to find a particularly hard bit of information Bob Lieser was the man you wanted to see. He was Wikipedia and Google all wrapped up in a warm friendly man willing and ready to help you.

Judy and Bob both shared an interest in astronomy. Judy's interest in astronomy started when she was a student at the University of Arkansas and she took science classes from Dr. B.P. Gundlach. Over the years, she has continued to read books and magazines about astronomy, and to attend Astronomy Club of Tulsa meetings and star parties whenever possible. She's been to every Okie-Tex Star party since 2010, and family travels have always included observatories and science museums, including the National Air and Space Museum, Griffith Observatory, Lowell Observatory, McDonald Observatory in Texas, and Sunspot Solar Observatory.

Judy has many interests. She often likes to share about a book she has recently read. Particularly about Women in Science. She volunteered at Tulsa Tech for a number of years helping with electronics classes. She also volunteered in the Tulsa County Library literacy program and in the Tulsa Public Schools. Congratulations Judy on living a full and fulfilling life.

On a more somber note, I would like to acknowledge a few of our long-time members who have passed away in the past year or so. Lina May, Gerry Andries, Steve Chapman, Richie Shroff and Rod Gallagher. Our astronomy club's continued success has been built on dedicated members willing to volunteer to share their love of the astronomy with future generations.

Click on these images to links on the Internet

ASTRONOMY TOOLS

Tulsa National Weather Service

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/

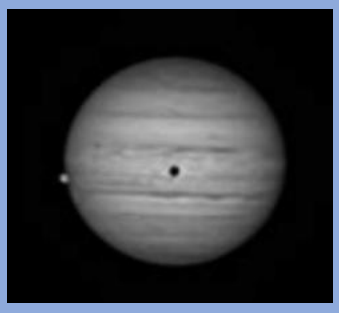
See Website Observation Station for a collection of Interactive Sky Watching Tools
Moon phases - Sun rise & Set - Make your own custom interactive sky chart and more
Great website for printable Finder Charts of Solar System objects https://in-the-sky.org/

Perihelion Jan 4th - 0.98 AU 147.1 million miles Latest Sunrise - Jan 4th 7:33 AM

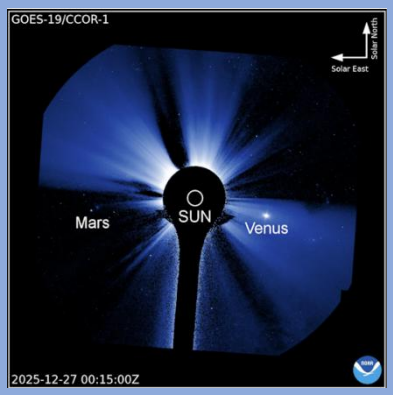
Moon Phases - Full Sat Jan 3 - 3rd Q Sat Jan 10 - New Sun Jan 10 - 1st Q Sun Jan 25

Lunar conjunctions – Jupiter - Sat Jan 3 Saturn & Neptune - Thurs Jan 22 & Fri Jan 23

Planets - Saturn and Neptune are still close together and visible in the SW. They are sinking lower each evening setting about 10:15 PM Uranus is still well placed near the Pleiades for those brave even to ferret it out. It is a fairly easy target in binoculars or small telescopes but can be a challenge distinquishing it from other stars. Its disc shape and greenish hue can be seen at about 100X.



Jupiter is closest to Earth in January reaching Opposition on Jan 10th. Thus, it rises near sunset in the ENE and is up all night. This is a great opportunity to observe details on its surface. Observe it on several nights and sketch the arrangement of it four brightest moons as they dance around the planet. To challenge yourself try to catch the shadow of a moon transiting its surface. At moderate magnifications you can see its parallel cloud bands and if you are lucky maybe try to detect its Great Red Spot. (which appears more like a brownish oval) If you have some colored eyepiece filters try them to see details better. You need to let your telescope cool down several minutes to see planet details. See Newsletter articles - WINTER OBSERVING TIPS January 2025 or Fighting the Winter Blues February 2025
Try this interactive Jupiter Moon Calculator or handy JupiterMoons App



Venus and Mars are passing behind the Sun
Click to set the scene in motion

This coronagraph image from NOA's GOES-19 satellite shows the two worlds on Dec. 27th Mars will become a naked-eye morning planet, while Venus becomes the brilliant "Evening Star." By February

See more about this triple conjunction on the
Dec 27, 2025 Space Weather article

Observing Chairman
Brad Young

Fin de Liste

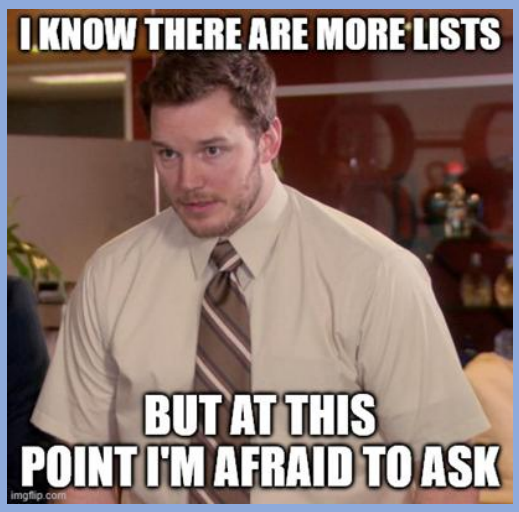
Author's note – though this article is about my experience with the New General Catalog, I hope you will use some of the ideas for when you finish an observing program, or, perhaps, need to take a break from one. Or, if you have no observing plans, it may save you from boredom (by giving you ideas), or insanity by dissuading you from embarking on an enormous list that seemed to never end.

Well, I have finished my project to visually observe all the NGC objects. In November, I visited Australia again for the OzSky Alumni Star Party (my third one of those and seventh trip overall). My intent was to sketch all the NGCs, although I decided not to try to sketch the very complicated central portion of the Large Magellanic Cloud. Speaking to one of the Australians, he had spent a year in the LMC. With these star parties lasting only a week, I backed off this requirement and was happy with sketching all the rest, 98% of the total.

If you're interested in more details of this journey, there are example sketches, object counts and a checklist at **my website.** There is also an explanation of which objects I included in the list, based on Steve Gottlieb and other's work on the NGC / IC Project. Unfortunately, I did not get to meet Steve on this trip; it seems like we are always in Oz at different times. I also just finished writing ***"Sketching the NGC Objects"*** (about the subject at hand) and ***"Extreme Astronomy"***. That book is another anthology of recent articles and has original material that examines how to see just a bit more than what you are supposed to be able to. Both new books are available now on amazon.com.

Now we've come to the end of the road, still I can't let go, It's unnatural…
"End of the Road", Kenny "Babyface" Edmonds / Daryl L. Simmons / Antonio M. Reid,
performed by Boyz to Men

Since I wrote a whole book about it, I won't go into the details of doing the NGC project here but instead look at the present situation that I've gotten myself into. As many know, finishing a big observing program is rewarding but can lead to an empty feeling. You had that accomplishment to strive for and now that it's finished, if you're like me, you may have a problem with motivation. Don't get me wrong, I was thrilled to finish. The guys I observed with said I showed visible relief once done. But now, I don't have that list to drive me and must search for new reasons to get out in the cold and dark. Of course, many of the same reasons that were there before are still around, including outreach, temporal events like comets, conjunctions and the like. And there are still plenty of other deep sky objects besides the NGCs for me to see in my 22-in Dobsonian. But having operated from a list for so long, now what?



One obvious path would be to delve further into imaging. I've written about this process many times and have also been doing remote imaging for quite some time. To stick my whole foot in the water, I bought a Seestar 50. I've only had one good night to use it before the proverbial new scope cloudiness poured in, but I was very impressed. Not only did it take me only about an hour to set things up, mess things up and then fix them, but the images on the first night were fantastic. I certainly see this little imaging scope being a big part of my near-term observing.

What better place than here?
What better time than now?
All hell can't stop us now
"Guerilla Radio" Rage Against the Machine
(When asked if they should start imaging)

As my dissipation worsens and I fall further into imaging, there are the Astronomical League Imaging programs. Not all of them can be done remotely with a large scope. Of course, not all of them can be done even adding a Seestar. At some point, I will have to add another imaging setup to do the planets and other medium-sized targets. But that's further down the road and can be done at leisure. There will still be all the citizen science stuff I've been involved with, but what else might be out there to kickstart observing, even visual observing that I haven't done before? No telling what's next, but several stages of concentrating on one type of observation throughout the last 45 years have taught me to have an open mind.

When I first began, tracking the planets was best. Later, it was double stars and splitting as many as I could with my small telescope. When programmable calculators came out, I bought a great book called "Astronomical Formulae for Calculators" by Jean Meeus and began using a TI-55 to work out the positions of asteroids. With sketches from field observations, you can ID them and look at the accuracy of the orbits determined from the formulas. This was interesting but awfully tedious doing it visually especially when I heard tales from my imaging friends about how they had picked up 20 or 30 at night just by taking a few wide field shots.

About the time I started doing AL programs in earnest, one of them caught my attention (tracking satellites) which is still a big deal for me. It's gotten rather strange with all the Starlinks up there as you can see from my latest account at my website. I might see a few more by the end of the year, but this is

probably good enough indication of where this part of the hobby is going. I still do use remote telescope imaging at Perth to catch some of the high earth orbit (HEO) satellites that are only visible from there but most of the LEO (low earth orbit) targets now are part of the mega constellations.

I make so many beginnings there never will be an end.
"Little Women" Louisa May Alcott.

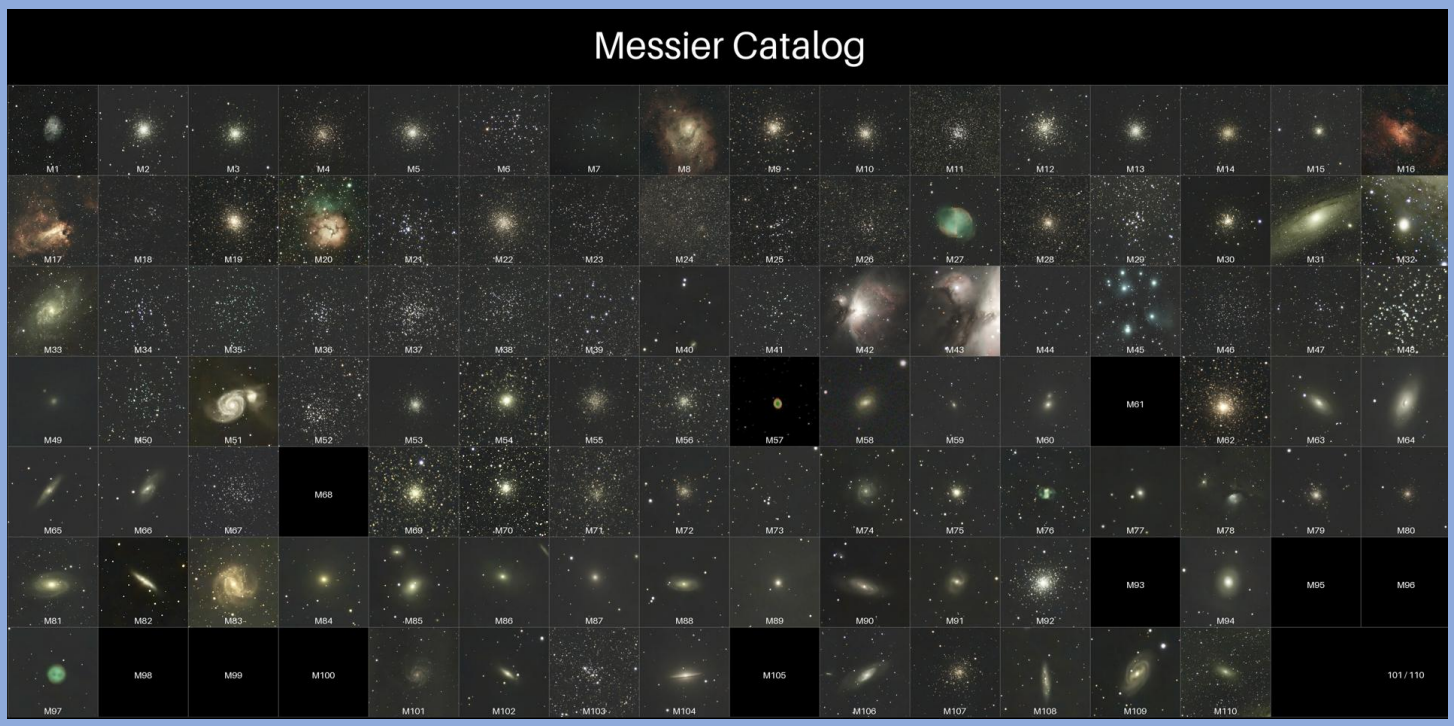
I have a lot of unfinished projects like finishing off the asteroid occultation program and spectroscopy. One new program to look forward to is the Exoplanet Observing Program from the Astronomical League which was announced but has not been released yet. This should be both extremely difficult and very rewarding. Otherwise, I'll just keep looking at the skies and fondly remember all the very dim, small smudgy NGC items that I looked at over the past 45 years and hope that I'm looking at something brighter tonight.

Some Cosmic Humor –

A Photo Catalog for Messier and Caldwell Objects

By Scott Bratt

Scott has been enjoying making images of the Messier Catalog objects with his SeeStar S50 telescope. Below he shares how he made his collection into an attractive photo layout.



I was browsing Facebook groups and ran across someone who posted a nice picture that showed all of the Messier objects in a nice, clean chart-like picture that you can add your own images into. It's actually a free program called Astro Catalog created by Sylvian Villet. It is available for Windows, MAC, and Linux. Not only can you add all 110 of your own Messier images but you can also create another picture that includes all 109 of your own Caldwell images by simply changing which catalog you want to create and save.

To begin, download the latest release for your OS and unzip the file (only one file) and move it to the folder/directory that you would like it to run from. It is an executable file so there is no installation, it will run from your desktop or any other folder anywhere on your computer. The interface is very straight-forward and clean with only a couple of options which are pretty self-explanatory. You will have to play around with your image sizes and crop or resize them to make them properly fill the small area for each target, but it is pretty forgiving on how you crop and does a good job of fitting the object in the box. One thing to note is you will have to name your cropped image in the following format for the software to pick it up and add to the chart. As an example, I made a copy of my original file, then cropped it accordingly, and saved under the file names like M1.jpg, M2, jpg, M3.jpg, etc… You can create a dedicated folder to keep these cropped images in, but all the files you want added must be in the same folder. After you have created all of the files you simply open the program and select either Messier or Caldwell as you catalog, then browse to the proper folder you created with your images. It automatically reads the folder contents and puts each image into the proper box. If you have problems with one of your files go back and check the file name to make sure it is in the proper naming format. The acceptable file formats are .jpg, .jpeg, .png, and .tiff. For me the longest part of creating the image was copying and cropping each picture, maybe 2 hours for the 101 items I currently have pictures of.

At the linked page are instructions on how to use the program and how to format your picture files so the program will import them. If at a later time you have a better image and want to replace the existing file you can just crop and save the new image back to the same folder where the old image is and overwrite it, then click the browse button, and save (without selecting a new folder) and it will reload all images. Once you are to a point that you want a saved copy of your work you can press SAVE at the bottom and it will create a file named “messier_catalog.png” in the folder you tell it to save in.

Everything works exactly the same when creating a Caldwell catalog, file names, folders, saving, Also, you can change the look to the “ENHANCED” vs “BASIC” and it will create a few blocks that are larger and you can add the larger images into it, like M31, M32, and M110 or M8 and M20. It’s a very simple program to learn and use, and creates a beautiful saved image with your work.

You can read more and download the program here:
https://github.com/sylvainvillet/astro-catalog/tree/3b59da24d58c316a6201b7835b3c83768ac4f89a

Scott shares his outstanding - **166-minute exposure** of the M 31 Andromeda galaxy made by accumulating nearly 3 hours of stacked images. He used the scope in its EQ mount orientation and used the mosaic mode to cover a wider imaging field to capture all the group. Using the Mosaic Mode overlays and stacks multiple staggered images to create a single larger image. Doing so took much longer actual clock time than the 166 minutes.

Treasurer Report
Cathy Grounds

As of December 30, 2025, we have 164 members, with 52 new members this year. Please welcome our newest members *Greg Lasiter, Joel Hovis, Andrew Selfridge, Warren Grigsby, Josh Turley, Jason Farque, David Atkins and Chad Malone !*

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

FAQ: 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.

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: AstroTulsa.Tres@gmail.com

Membership rates for 2024 - 2025 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 **includes 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. You will need to do so directly using their web links below to make your subscription

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
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

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Use the club CONTACT PAGE
To Send a Message to any of the officers or board members or click the CONTACT tab on the top of our website

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JERRY CASSITY
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NIGHT SKY NETWORK – Jonathan Fussell

WEBMASTER - JENNIFER JONES

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