



# OBSERVER

March 2018

*Bringing Stars to the eyes of Tulsa since 1937*

Images from the January 31st Total Lunar Eclipse  
See more member's images and reports on pages 6 & 7

Full Moon before Eclipse

Penumbra Shadowing



About 1/3 covered by Umbra

Fully Eclipsed Moon

Member **John Moore** captured images at the ACT Observatory. This time lapse covers two hours - 5:00 am to 7:00 am. Conditions were challenging - very windy, turbulent air, cirrus clouds and a haze layer near the horizon. The results were disappointing but I had to give it a try as these events don't occur every day.

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## Astronomy Club Events

Details at <http://astrotulsa.com/Events.aspx>

<b>MARCH</b>			
PUBLIC NIGHT	<b>SAT MAR 10</b>	<b>6:00 PM</b>	ACT OBSERVATORY
<b>DAYLIGHT SAVING TIME BEGINS SUNDAY, MARCH 11.</b>			
MEMBERS' NIGHT	<b>FRI MAR 16</b>	<b>7:30 PM</b>	ACT OBSERVATORY
<b>ST. PATRICK'S DAY</b>	<b>SAT MAR 17</b>		
<b>MESSIER MARATHON</b>	<b>SAT MAR 17</b>	<b>TBA</b>	<b>TUVA</b>
<b>VERNAL EQUINOX</b>	<b>TUES MAR 20</b>		
<b>GENERAL MEETING</b>	<b>FRI MAR 30</b>	<b>7:00 PM</b>	<b>JENKS PLANETARIUM</b>
SIDEWALK ASTRONOMY	<b>SAT MAR 24</b>	<b>6:30 PM</b>	BASS PRO
<b>GOOD FRIDAY</b>	<b>FRI MAR 30</b>		
<b>APRIL</b>			
<b>EASTER SUNDAY</b>	<b>SUN APR 1</b>		
PUBLIC NIGHT	<b>SAT APR 7</b>	<b>7:30 PM</b>	ACT OBSERVATORY
MEMBERS' NIGHT	<b>FRI APR 13</b>	<b>8:00 PM</b>	ACT OBSERVATORY
<b>MESSIER MARATHON BACKUP</b>	<b>SAT APR 14</b>	<b>TBA</b>	
<b>GENERAL MEETING</b>	<b>FRI APR 20</b>	<b>7:00 PM</b>	<b>JENKS PLANETARIUM</b>
<b>OBSERVATORY WORK DAY</b>	<b>SAT APR 21</b>	<b>9:30 AM</b>	ACT OBSERVATORY
SIDEWALK ASTRONOMY	<b>SAT APR 21</b>	<b>7:00 PM</b>	BASS PRO



### Planets in March

**Jupiter, Mars and Saturn** can be seen in the SSE sky well before dawn. Jupiter shines brightest in the south. The moon will pass Mars and then Saturn on March 9, 10 & 11. Mars and Saturn have a close conjunction Mar 31 to Apr 2. **Venus** and **Mercury** are putting on a good show as our evening stars setting during twilight. This is Mercury's best evening showing of the year. The thin crescent moon joins the pair March 19 & 20. Podcast Tour March's Sky: [Planet Peeks at Dusk](#)

# PRESIDENT'S MESSAGE

BY TAMARA GREEN

Hello Boys and Girls!

Sadly, we had several events this month cancelled due to bad weather. Our Public Night and Members' Night both got clouded out, and at our event with TASM, despite the planetarium show being really good, we were unable to have the observing session due to clouds and rainy weather.

We did have several of us from the Club show up for the Presidents' Day event at TASM. I want to give a big shout-out to John Land, Owen, Ed and Deana, Steve Chapman, and Bob Ferguson for being there despite the weather! We had a really good planetarium show, and I wish we could have brought our telescopes out, but Mother Nature can be a bit of a "B" when she wants to be.

## **Don't forget to set your clocks on Sunday, March 11! Spring Forward!**

Our Messier Marathon is next month! The date is Saturday, March 17, 2018. It will be at TUVA again this year, provided the weather cooperates. There will be a potluck dinner before the marathon begins, so if you want to bring a dish, dessert, or drinks (non-alcoholic please) to share, please feel free to do so.

There will be a caravan down to TUVA, and I will be leading it again this year. For information on where the caravan meets and what time to be there, please email me at [astrotulsa.pres@gmail.com](mailto:astrotulsa.pres@gmail.com). There will not be one going back to Tulsa, as many participants leave at varying times of the night and not all of us are going to the same place. However, if you want to follow someone back to town, you are welcome to ask around to see if someone is going in the same general direction as you are and if you can follow them back to town. I'm sure someone will let you caravan back with them.

I have sent out a Messier Marathon Packet, which contains the search sequence, finder charts, a map to the caravan site, a map to TUVA (for those of you not interested in joining the caravan), and a "Things To Know" section. If you have not gotten your packet, please let me know and I will email you another one.

The Messier Marathon is a members-and-immediate-family only event. This will NOT be open to the public and/or guests.

The Vernal Equinox is on Tuesday, March 20. Some people try to get pictures of the rising sun on that day, especially if it is in a visually interesting location. That might be a fun activity to try! The sun rises at 7:28 AM on that day, and it will be just three days past New Moon.

There are a couple of wonky event dates in March, due to Easter Weekend. Sidewalk Astronomy will be on Saturday, March 24 at Bass Pro, starting at 6:30 PM. (Or earlier, if you want to come out to do some solar.) Our General Meeting will be on Friday, March 30, same date as Good Friday. I will try my best to get a good speaker for that date.

I hope to see you at our fun March events!

*Clear Skies, Tamara*



**2018 Messier Marathon 27<sup>th</sup> Annual Event**  
**Saturday March 17 This is a MEMBERS EVENT**  
**A Caravan will leave at 3:30 PM**  
**From Burger King in Broken Arrow –**  
**Take BA Expressway to Elm Pl exit –**  
**Turn Right ( South ) about 1 block to first Light**  
**Turn Right into Burger King Lot.**

**If you are going to follow the caravan Email – or TEXT Tamara Green**  
**RSVP by sending your Name, Email and cell phone number to contact you.**  
**918-851-1213 [astrotulsa.pres@gmail.com](mailto:astrotulsa.pres@gmail.com)**

Each year near the Spring Equinox, Club members get together for an all night Messier Marathon at TUVA (the home of our wonderful hosts Ron and Maura, located south of Muskogee, OK  
TUVA is also Home of the 24” Bart Custom built telescope.  
There will be a caravan led by Tamara Green to the TUVA observing site. Be sure to bring something for the **Pot-luck dinner and snacks and drinks to keep you going through the night.**

There are 110 objects in Messier’s famous catalog. The object of the game is to see how many of them you can find in one night. In the late 1700’s French astronomer Charles Messier made a catalog of 110 deep sky objects that are visible in amateur telescopes. They include star clusters, galaxies and nebula.  
Near the Spring Equinox it is possible to view all 110 of them in a single night starting in the west just as the sun sets and extending to dawn as the sun rises in the east.

Our website has log sheets with the objects arranged in the optimum order for observing them during the night. You’ll want to **Print off the Log sheets** to record each object as you locate it. A couple of EverSharp Mechanical pencils work best for keeping your records.  
You may also print the **set of observing charts** with each object marked with a Sequence number. You can **print these off these charts** or use your on star charts.

**<http://okmcd.com/pub/MessierMarathonCharts.pdf> Log Sheets & Observing Charts**  
**The maps make a great finder chart during the year also.**

**Prepare yourself well for a full nights observing. Red lights** are a must to maintain you dark adaptation. Temperatures can drop sharply throughout the night. Dress in layers and supply yourself with warm gloves, hat and insulated shoes or double socks. You’ll need to bring some sort of clip board or tray to keep your log papers organized. Also bring your own lawn chair and maybe a blanket to catch a power nap along the way. Some people bring a small tent or blankets. The main building is heated and has a small restroom. Outdoor electricity is limited so bring your own power supplies if you have them.

Guide to Messier Marathon Observing  
<http://www.richardbell.net/marathon.html>

Great Single page search list  
[http://www.richardbell.net/Files/messier\\_list.pdf](http://www.richardbell.net/Files/messier_list.pdf)

Star Hopping Guide to the Marathon  
<http://www.robhawley.net/mm/>

Enjoy a Live Video Marathon Mar 28  
<http://www.mvastro.org/starparty/messier.php>

Composite Image of all 110 M objects  
<http://apod.nasa.gov/apod/ap000311.html>

Messier Marathon **App** Store on iTunes –  
<https://itunes.apple.com/ca/app/messier-marathon/id594617818?mt=8>

Composite Image of all 110 M objects  
<http://apod.nasa.gov/apod/ap000311.html>

Awesome APOD Image of a Messier Night  
<http://apod.nasa.gov/apod/ap110527.html>

**AVOID FRUSTRATION**  
**M 40 is only a Double Star**  
<http://astrotulsa.com/Observe/m40.htm>



## Our Astronomy Club's newest young astronomer.

9 year old **Timothy Ngo** with his first telescope – 70 mm Meade DS 2102 Refractor

Timothy is in the Gifted and Talented program at Peters Elementary in the Union school district



I started learning a lot about space when I was about 5 or 6 and I saw a picture of a galaxy and thought to myself, "What is that? It was cool I had to learn more about it."

So I read a lot of the school's books about space and went online and searched. I found a lot and it was a lot of fun.

Then the astronomy club came and everything went through the roof! I got to look through a telescope for the first time and see some cool stuff like planets and things to tinker with and cool shows to watch.

So that brought me to today and the astronomy club helped me a lot with the "seeing" of the stars and constellations and how to find, and when to find them.

Timothy

**Below are few of our members images of the Jan 31 Total Lunar Eclipse**



**Tony Cagnolatti**

My wife, Jess, and I went to the Washington Irving Memorial Park in Bixby and walked out onto the pedestrian bridge crossing the Arkansas River. We had a great unobstructed view of the eclipse over the river. We got there just a few minutes after the eclipse started and were able to watch it all the way to totality. We were also able to get a few decent photos of the eclipse. I'm really glad that I found the club because we finally have a hobby that we both enjoy and are having a great time enjoying many celestial events that we never would have paid attention to before.

**Dan Horwitz-** I drove to 121st & Sheridan where I would have a decent view of the western horizon, since the moon was relatively low in the sky during the eclipse. Just used a Sony Cybershot DSC HX400V with 50X zoom. To capture the amber glow of the almost totality, I had to go to manual settings, and slow the shutter speed and increase the aperture some.



**Adam Mason** went on top of First Baptist church hill at 61st and Elm in Broken Arrow looking back to the west. Using his Samsung Edge 7 set on "Pro" mode on a Meade LX6 telescope. Images were through a 25mm Tel-Vue Nagler eyepiece with a 13% Orion filter

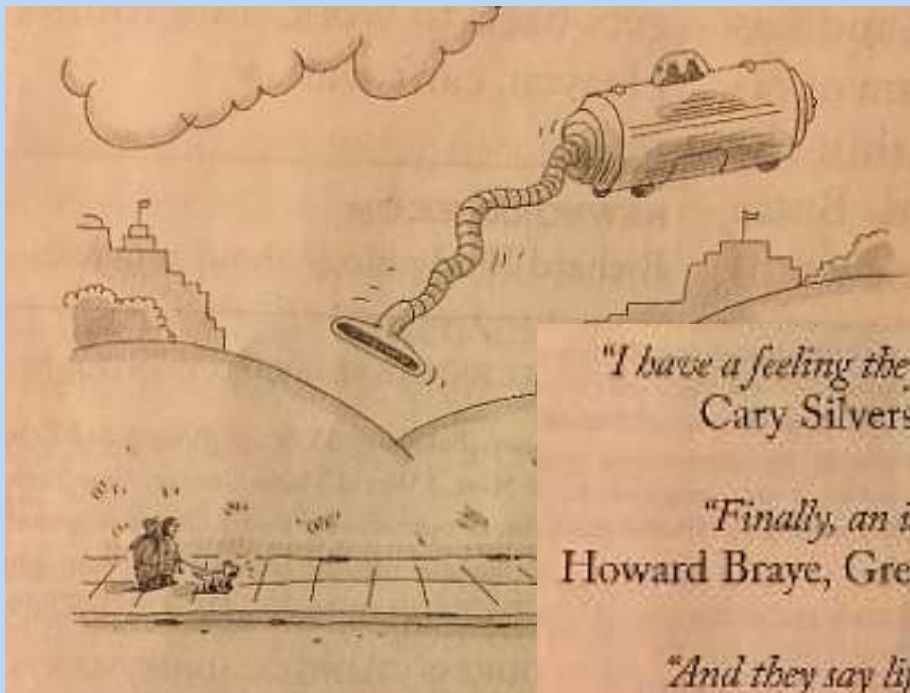




**Ed Downs** I made a last minute decision to try and catch a photo. I grabbed my little Mead ETX-70 refractor, tossed in a 10MM eyepiece with a #96 neutral filter, hooked a smart phone bracket and clamped in my Galaxy 5. The moon was going behind clouds, but what the heck ... Click ... Click. I think it is fair to say that decent astrophotography takes a bit more planning.

**Bill Collier**

I arose around 6:20 am, glanced out the west kitchen window. There it was - dark red, 90% covered, just above the treetops. I grabbed my trusty ST80 refractor, adaptor, Canon DSLR, and Bogen tripod. Throwing them into the Highlander, I sped out the garage and down 3 blocks to cross 91st to the Tulsa Tech Center at Riverside Airport in Jenks. This was going to be good; a blood red moon setting just by the airport control tower. Slamming on the brakes, rushing out with the equipment to that special knoll; I saw clear skies, with a low band of clouds at the west horizon. I would have to work very fast. Spinning, screwing, extending, I set up the telescope with camera and pointed it to the darkened moon. Clouds! Clouds! Clouds! The moon had just slipped below that forsaken low band of clouds! Rats! No photo this time ! Astronomy at the horizon level is very iffy business.



A bit of Astronomy Humor forwarded by K.C. Lobrecht

*"I have a feeling they are going to treat us like dirt."*  
Cary Silverstein, Scottsdale, Ariz.

*"Finally, an identifiable flying object."*  
Howard Braye, Green's Harbour, Newfoundland

*"And they say life can't exist in a vacuum."*  
Larry Looney, Austin, Texas

# SECRETARY'S MESSAGE

BY JOHN NEWTON



## **A Letter from the Astronomy Club Secretary**

The newly elected officers and directors of the Astronomy Club of Tulsa (ACT) held its first regularly scheduled Board Meeting for 2018 on Saturday, February 3<sup>rd</sup> with nearly all officers and board members in attendance. The framework for this meeting included discussions surrounding upcoming events, updates on previously created committees and formations of new committees which are open to club member participation, and finally general topics on ACT business-at-hand. Each of these are summarized below.

**Honorable mention** – Congratulations to John Land and all who volunteered for heading up a session on “Telescope 101” at Tulsa Air and Space Museum (TASM) on Saturday, January 6, 2018. The session had a large turnout of interested participants and was considered a complete success. Thank you all!!!

## **Upcoming Events and Awareness:**

Do you know about Woolaroc in Bartlesville? Woolaroc is a museum and wildlife preserve located in the Osage Hills of Northeastern Oklahoma on Oklahoma State Highway 123 about 12 mi southwest of Bartlesville, Oklahoma and 45 mi north of Tulsa, Oklahoma. Woolaroc was established in 1925 as the ranch retreat of oilman Frank Phillips of Phillips 66. Jan Tucker, Woolaroc Membership Director, reached out to our President, Tamara Green, about planning an evening sky and naked eye planet watch party for Woolaroc. With several interesting celestial events coming this summer, it seems like a wonderful opportunity to expand our public awareness about ACT as well.

The exact date for this event has not been made firm but additional details will be posted once it does. Possible Dates are in late July or August when Mars, Saturn and Jupiter can be seen by the naked eye. Mars will be very bright in the sky this year during opposition to the Earth. The closest point for Mars to Earth is on July 27<sup>th</sup> and should be very bright this year.

Saturn with its rings is always interesting to see through a telescope. Saturn should be visible in the night sky starting all night in July, or best in the evenings from August through the second half of the year. Jupiter with its bands, diminishing red spot, and moons is always worth a look. Jupiter will be best viewed in the evening sky until midnight from June thru the summer months.

Did you know February goes without a Full Moon this year? Being a short month already, it's caught right in the middle of a lunar cycle. Instead, we get to see two full moons in March just as we did in January. The second full moon is the Blue Moon.

## **ACT Business-at-Hand:**

A list of Spring projects is set for the ACT Observatory. Funding has been approved to make these improvements of our facility.

These projects are being directed by James Taggart (ACT Facility Manager) with assistance of a few volunteers. Plans are to start them on April 21<sup>st</sup>. Projects include stripping and painting the stairs, dome deck flooring, and repainting the bathroom floor.

In addition, James will work on rearranging the classroom layout. He hopes to have these projects completed before the following General Observing Night that is scheduled for May 5<sup>th</sup>.

New optics for the dome telescope. Funding has been approved to purchase two badly needed items for the large dome telescope helping to improve your visual experience.



1. A 2 inch, 31mm eyepiece made by Luminos designed to offer an 82-degree field of view of the night sky.
2. A finder scope with right angle so that the telescope can be used manually to hone in on celestial targets.

### **Exploratory committees established in December - updates:**

1. Finding an alternate Dark Sky Site is still being investigated. Nothing to report on this yet.
2. Finding wet weather leaks in the observatory dome and building. It has been a very dry winter, so it has been very difficult to spot any leaks to date. However, the committee has created a multi-phase approach on this issue...
  - a. Phase 1 - The observatory in general has a few water leaks resulting in moisture issues. This seems to be due to rain penetrating the roof or doom into the building. James Taggart and Skip Whitehurst have volunteered to camp out at the observatory during a rainy day to locate and mark any points where leaks exist.
  - b. Phase 2 – Determine cost and make recommendations on how to fix the leaks permanently.
  - c. Phase 3 - Assemble a team to make the needed repairs...

A new committee is being considered to help facilitate having a presence at the Tulsa State Fair. This suggestion was intended to raise public awareness of your Astronomy Club of Tulsa in a forum like that of the State Fair. Fair authorities begin reviewing booth applications in March. This committee, which still needs a chairperson to represent this effort, is still forming and will look at the feasibility for participating in the 2019 Tulsa Fair. This event would be monumental for the club, so membership participation would be key to our success. More to come on this subject.

As an alternative venue for 2018, board members are looking at the Makers Fair which is held at the fairgrounds horse track. Marketing material about ACT is being reevaluated, including updating or creating new posters, tri-folds and business cards about the club. This material could also be made available for handout at Sidewalk Astronomy sessions and other future events.

As the many listed committees undergo their assigned research, the board will continue to monitor progress and post their findings in future newsletters.

Now that construction on Alt. Highway 75 has been completed we plan on having road signs made and installed for directing traffic to the ACT Observatory. The ideal posting sites would be along Alt. Highway 75 at Fergusson Road, and at Highway 75 at 141<sup>st</sup> Street.

We reported that new electronic locks and surveillance systems have been approved to secure and allow access to Observatory. This has been an ongoing project as the electronic door lock was backlogged with the vendor. However, James Taggart has been successful with installing two additional cameras, making it now 4 cameras in total, and is working on creating Access Codes for existing key holders for the front door. A Compliance Form has been developed for all current key holders to sign. The form describes best practices, safety considerations, and general respect for using the facility.

Members who are interested in using the facility and want to become a key holder can apply by contacting a board member. Also, with recent plumbing issue resolved, new instructions for heater settings (winter months) and turning on/off water to the building will be updated and posted on the door.

Finally, updates to the website are being made by John Land to include updated directions to the observatory, and reforming other outdated items.

Please feel free to contact me with any questions or comments by emailing me at [astrotulsa.secy@gmail.com](mailto:astrotulsa.secy@gmail.com).

*Sincerely,*

*John Newton - ACT Secretary*

## Astronomy Events around town



**Peggy and Rick Walker** of BASidewalk astronomers are seeking sponsors and donations to purchase a portable E-Planetarium to be used promoting Astronomy in schools, libraries and other sites. The projection system has a unique design that projects floor to ceiling full dome movies. During the month of March they have a planetarium on loan with plans to demonstrate it in several locations. They will be at Hardesty Library Tues Mar 13 from 1:00 to 9:00 PM. Check out their Facebook page for other times. [www.facebook.com/BASideWalkAstronomer](http://www.facebook.com/BASideWalkAstronomer)



**JENKS PLANETARIUM**  
**Jenks High School Campus**  
**205 East B Street, Jenks**

### TICKETS

\$5 online or \$7 at the door  
 Purchase online at [jenkscommunityed.com](http://jenkscommunityed.com)  
 or call 918-298-0340

**2018 [Go to Show Schedule](#)**

**Then click the Date Column to sort them by show date**



### JENKS PLANETARIUM

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

SPRING SHOWS			
<b>Tuesdays</b>			
Jan 16	Animals of the Sky	7pm	Ages 3-10
Jan 23	The Sistine Chapel	7pm	Ages 12 & Up
Jan 30	Earth, Moon & Sun	7pm	Ages 3-12
Feb 6	Passport to the Universe	7pm	Ages 10 & Up
Feb 13	My House Has Stars	7pm	Ages 6 & Up
Feb 20	The Winter Sky	8pm	Ages 8 & Up
Feb 27	The Sky We Don't See	7pm	Ages 8 & Up
Mar 6	Compass, Calendar Clock	7pm	Ages 10 & Up
Mar 13	The Sky We Don't See	7pm	Ages 8 & Up
Mar 27	Fractal Exploration	7pm	Ages 6 & Up
Apr 3	Spacepark 360	7pm	Ages 3 & Up
Apr 10	Oasis in Space	7pm	Ages 10 & Up
Apr 17	The Sky We Don't See	7pm	Ages 8 & Up
Apr 24	The Spring Sky	8pm	Ages 8 & Up
<b>Saturdays</b>			
Jan 13	Earth, Moon & Sun	11am	Ages 3-12
Feb 10	Animals of the Sky	11am	Ages 3-10
Mar 10	The Sky We Don't See	11am	Ages 8 & Up
Apr 14	Spacepark 360	11am	Ages 3 & Up

**TELESCOPES FOR SALE – PRICES REDUCED – MAKE REASONABLE OFFER**

**Celestron Celestar 8 Deluxe Schmidt-Cassegrain Telescope - \$800 (Owasso)**

Full details at <https://tulsa.craigslist.org/for/d/celestron-celestar-8-deluxe/6486725449.html>

Contact Tyler at [tyler@owasstek.com](mailto:tyler@owasstek.com)



All eyepieces and attachments are Celestron brand and made in Japan and include:

- Deluxe tele-extender model 93643 value - \$100-\$150
- Reducer/Corrector -f/6.3 value - \$140
- 30mm Ultima Series multi-coated eyepiece value - \$100
- 12.5mm Ultima Series multi-coated eyepiece value - \$80
- Star Diagonal 1.25 mirror value - \$35
- Visual Black 1.25 connector value - \$35
- Camera mount

**Meade Starfinder 10 inch F 4.5 Dobsonian - Reduced Price \$ 400**

With Telerad finder and 6x by 30mm finder scope - 1.25 / 2.0 in rack and pinion focuser  
Quality Upgraded Eyepieces with a handy carrying case and two red light accessories.

Meade 1.25 " Super Wide Angle 24.5 & 13.8 mm Orion 21mm to 7mm Zoom Eyepiece

Meade 2X Telenegative amplifier—and more

Details in February newsletter - [http://astrotulsa.com/CMS\\_Files/02-2018.pdf](http://astrotulsa.com/CMS_Files/02-2018.pdf) page 13

Contact John at [Tulsaastrobiz@gmail.com](mailto:Tulsaastrobiz@gmail.com)



## **Story of the Messier Marathon Adventure: 27 Years and Counting By Ron Wood**

A Messier marathon is an attempt to view all 110 objects of the Messier catalog in a single night. First attempted by several individuals in the late 1970's, Messier marathons quickly gained widespread popularity so that by the end of the following decade hundreds of them were held each spring around the world. For the past 26 years, weather permitting, the Tuva Astronomy Organization (TAO) has held a Messier marathon at Tuva Observatory on the north slope of Mount Feynman, near Lake Eufaula in east central Oklahoma.

In 1991 the TAO was newly formed and was looking for a way to generate interest in astronomy. Also at that time the Oklahoma City and Tulsa clubs were looking for ways to work together more closely. A Messier marathon seemed to answer both these needs. The Tulsa and OKC clubs were invited to Tuva for what, I think, was Oklahoma's first Messier marathon.

That March the new moon occurred on the weekend of the 16th, but weather caused a delay until the 23rd, which proved to be clear and calm. In late afternoon about 25 observers from OKC and Tulsa joined Tuva members on the observing field and began setting up their scopes. David Fitzgerald, a well-known professional photographer sent by "Oklahoma Today" magazine, strolled about the field taking photos for an article written by Maura McDermott, "Starry, Starry Nights." The article about astronomy in Oklahoma, from Native American lore to present-day events and activities, appeared in the July/August issue. Just before sunset everyone sat down to a cornbread and bean dinner provided by Tuva. Soon the first stars appeared and scopes were turned low near the western horizon to catch those objects which would set soon after the sun.

Although the weather was ideal, the moon, nearing first quarter, made for difficult viewing of dim objects during the early evening hours. However, the sound of muffled, desultory conversation mixed with an occasional appreciative exclamation bespoke a hive of happy astronomers. This went steadily on until near midnight when a brilliant red aurora filled the northern half of the sky with shimmering, shifting curtains of light, a rare sight this far south. For many this was their first view of an aurora, and it seemed a cosmic blessing on the new marathon. Much later as sunrise approached, a few bleary-eyed astronomers still struggled to log the final objects in the rapidly brightening sky. The sun rose and revealed that David Stine of the Tulsa club was the winner of the first marathon, having logged 97 objects.

As a result of the enormous success of the first marathon, a second marathon was held on April 4th of the following year. Another bean dinner was served and Tuva's newly constructed 24" telescope, BART, was on public display for the first time. Also for the first time, the winner of this marathon would receive the David Stine Award, which had been created and named in his honor as a result of his win the previous year. As it turned out David also won the second marathon, and received the first David Stine Award. Winners of the award receive a certificate, and their names are engraved on a plaque displayed at Tuva.

Tuva's third marathon in 1993 was scheduled for March 27. Although skies were cloudy early in the day, several hard-core Tulsa members led by Marc Chouinard and Blake Champlin, set up scopes in the early afternoon for some solar viewing. Several Tuva members soon appeared, and we enjoyed good skies until about 2:30 a.m. when clouds rolled in, ending the marathon. A minor controversy arose when Marc, who was in the lead with 55 objects, laid claim to the David Stine Award. He was informed that the rules stipulated that the award was only given to someone who equaled David Stine's original score of 97. In short, Marc found this unacceptable; the Marathon administrator caved, and since that time the David Stine Award has gone to the person with the highest score, regardless of circumstances. The name of Marc Chouinard may be seen on the award plaque as the second winner, and Tuva maintains good relations with Marc to this day.

In 1994, weather conditions led to a cancellation of the marathon for the first time. In 1995, James Liley became the third winner by logging 108 objects, setting a record which still stands. James' observational skill was on full display when he called me to his scope just before sunrise to confirm his

108th object: the globular cluster M30. It sat on the knife-edge of visibility against a sky already so bright that stars were no longer visible. It was an impressive catch.

A year or two later James provided an equally memorable observation when he called me and several others to his scope for a mystifying view of M82. We had all seen M82 many times before, but this was different. Scintillating points of light blinked rapidly on and off randomly over the surface of the galaxy throughout the evening. I have searched but never found a credible explanation though I later discovered in "Burnham's Celestial Handbook," that this has been reported. Years later the mystery deepened when I stumbled upon a novel, "Anomaly at Fortune Lake," written by Wayne Lutz, which recounted an identical observation of M82 made by the amateur-astronomer-hero of the story. I was so intrigued I contacted Mr. Lutz to ask the source of that idea. He said he had simply made it up. At any rate, it remains the most memorable and inexplicable observation I have ever made.

The 1996 marathon was held on March 16th as was reported in this excerpt from the "Tuva Newsletter" :

#### LILEY WINS '96 STINE AWARD

The Tuva Astronomy Organization has officially announced the winner of the 1996 David Stine Award which went to James Liley of the Tulsa club for the second year in a row. The award is given to the winner of the annual Messier marathon held at the Tuva Observatory.

Mr. Liley managed to observe 105 Messier objects at the marathon held on March 16th, missing only objects 30, 55, 72, 73 and 74. Scott Parker of the Tulsa club was also impressive with 103 objects observed. Their scores are all-the-more remarkable considering the very cloudy conditions that prevailed at times during the evening.

Tuva's sixth marathon was held on April 5th, 1997, much to the amazement of everyone who waited through many cloudy days prior to the marathon. Attendance was good, and included all previous winners of the marathon: David Stine, James Liley and even Marc Chouinard, who came down from Chicago. K.C. Lobrecht, past president of the Tulsa club, was there with her recently completed telescopic drawing of Comet Hale-Bopp. The winner of the marathon was Scott Parker who logged 72 objects before 2 a.m. when the marathon was halted by a sudden frigid blast of north wind as a strong cold front barreled through.

The seventh marathon was held on March 28th, 1998, and it was *Deja vu* all over again with the irrepressible David Stine leaving the pack behind to once again take win the marathon. In writing this piece, I realized that although this was David's second award, it was his third win, since the award was created after his first win. David wrote an extensive account of the '97 marathon for the ACT newsletter. Here is an excerpt:

As the night grew older, some people ventured inside Ron's house for a break. Those that stayed outside were glad we did. A flash of light almost like lightning lit up the sky, catching everyone's eyes. A brilliant meteor bolide streaked across the sk, breaking up and causing a beautiful display of greenish blue color. It was an awesome sight. I took a break after that to get ready to venture into Ursa Major, and then the Virgo Cluster.

In February of 1999 I was involved in a serious accident, and the marathon was cancelled. In 2000 the marathon was scheduled for April 4th, but bad weather intervened that year and for multiple years, delaying the next marathon until 2003, a hiatus of 5 years. It began to seem that the marathon was a thing of the past, but after some gratifying encouragement from Tulsa astronomers, the marathon rose again in 2003.

By this time the marathon had reached maturity and taken on its present form. A new building had been built with a warm lounge for escaping the occasional sub-freezing temperatures-- many remember the stalwart observer who paused for a sip of his Dr. Pepper only to find it that it had turned to ice. The potluck dinners too had grown in popularity and delectability, with folks bringing casseroles, salads and sweets. We could always count on a vat of Tom McDonough's Okie caviar, a perennial favorite!

Everyone seems to enjoy hanging out and sharing a meal before the serious observing gets underway.

We also created a new award, called for historical reasons, the "**Little TOE (Tuva Observer Extraordinaire) Award.**" It is given to anyone who turns in a score for the marathon. Each year several Little TOEs are awarded, both to beginners who have made a good effort and more seasoned observers who have racked up a significant number of objects.

Rod Gallagher won the 2003 and 2004 marathons. He might tell you the story of hours spent one morning following the marathon trying to extract his very large trailer from an even larger mud hole. Three years of bad weather then ensued before the 2007 marathon, which ended in a tie between Steve Chapman and Tony White, who posted scores of 105. The competition was intense that year with other scores of 91, 99, 99, 102 and 103. Tony White won again in 2008, and in 2009 it was Tom McDonough who won our only (so far) fall marathon. Bad weather cancelled the 2010 event. In 2011 Tom McDonough once again snagged the most objects. In 2012, excessive spring rains created such muddy conditions at Tuva that the marathon was held at the observatory at Mounds instead. Ann Bruun won that with a score of 107 objects, with Tamara Green hot on her heels with 106. Tamara got her first win in 2013. Tom McDonough scored again with 102 objects in 2014, winning his third marathon and tying David Stine for # of wins. Tamara won again in 2016, after another weather cancellation in 2015. The #s of objects logged are often very impressive, with both winners and runners-up giving it their all from dusk 'til dawn.

The 2017 marathon was cancelled due to cloudy conditions and was attended only by Steve Chapman who failed to get the cancellation notice. As one of the few people still around who attended the first marathon, Steve has an outstanding record of loyalty to the event and can be counted on to attend come rain or shine (and bring his delicious chili). Another dependable supporter is Ann Bruun, who captured the flavor of the marathon in her article entitled "March Marathon Madness" in the February 2010 ACT newsletter.

The overriding aim of Tuva has always been to celebrate and promote Richard Feynman's "Spirit of Adventure," and the Messier marathon has been our greatest success in achieving that goal. It has been, and continues to be, a most satisfying adventure. The feeling that the astronomers of the ACT have enjoyed it as much as we have is doubly satisfying. Many thanks to the Tulsa club for all the support and encouragement throughout the years, and especially to those who have met the challenge of the marathon.

### **Winner, Inaugural Messier Marathon, 1991: David Stine**

Winners of the David Stine Award

1992 David Stine  
1993 Marc Chouinard  
1995 James Liley  
1996 James Liley  
1997 Scott Parker  
1998 David Stine  
2003 Rod Gallagher  
2004 Rod Gallagher  
2007 Tony White, Steve Chapman.  
2008 Tony White  
2009 Tom McDonough  
2011 Tom McDonough  
2012 Ann Bruun  
2013 Tamara Green  
2014 Tom McDonough  
2016 Tamara Green

# TREASURER'S AND MEMBERSHIP REPORT

BY TIM DAVIS



**Astronomy Club of Tulsa: 169 members, including 8 new members in 2018.**

**Welcome to our new members this month:**

**Bill Nichols, Ashton Yarbrough and Gary Nettle**

## **Club Accounts as of February 27, 2018:**

**Checking: \$ 4,605.70**

**Savings: \$ 6,778.01**

**Investment accounts: \$ 23,034.94** *(Value Fluctuates with Market)*

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

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

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

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

Membership rates for **2018** are as follows:

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

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

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

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

**\$ 15** with voting rights but without League Membership.

**The regular membership allows all members in the family to participate in club events but only ONE Voting Membership and one Astronomical League membership.**

**Join Online – Add or renew magazine subscriptions.**

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

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

**Astronomy is \$ 34 for 1 year, or \$ 60 for 2 years.** [www.astronomy.com](http://www.astronomy.com)

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

**Sky & Telescope is \$ 33 per year** [www.skyandtelescope.com](http://www.skyandtelescope.com)

Sky & Telescope also offers a 10% discount on their products.

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

**NEW SUBSCRIPTIONS** must still be sent to the club

# Astronomy Club of Tulsa 2017 Accounts Summary

<b>Bank Accounts</b>	
Checking: Jan 1:	\$7,378.49
Dec 31:	\$6,997.93
Savings: Jan 1:	\$4,776.40
Dec 31:	\$6,778.01
<b>Investment Funds</b>	
American Balanced Fund:	Jan: \$4,446.36 Dec: \$5,042.86
Franklin Income Fund:	Jan: \$11,410.46 Dec: \$12,196.41
Washington Mutual Inv:	Jan: \$4,623.84 Dec: \$5,483.79
Cash Balance:	Jan: \$213.28 Dec: \$63.34 (Annual fee = \$150.00)
Total Investment Balances:	Jan: \$20,413.18 Dec: \$22,786.40 Increase +11.63%

<b>Category Summary - 2017 Year End Totals</b>	
<b>Money In</b>	<b>\$8,787.40</b>
Calendar Sales- 2017	\$100.00
Donation- General	\$557.36
Donation- Group Event	\$493.00
Donation- Star Party	\$564.81
Interest	\$1.61
Magazine- Member payment- Astronomy	\$656.03
Magazine- Member payment- Sky & Tel	\$528.01
Membership- New	\$2,296.34
Membership- Renewal	\$3,374.24
Solar Film sales	\$96.00
Solar Glasses Sales	\$120.00
<b>Money Out</b>	<b>-\$7,166.35</b>
Annual Dinner 2017	-\$560.22
Calendar Sales- 2018	-\$63.52
Magazine- Club Payment to Astronomy	-\$722.95
Magazine- Club Payment to Sky & Tel	-\$494.25
Operating Expense- Astro League dues	-\$750.00
Operating Expense- Events	-\$88.00
Operating Expense- Insurance	-\$1,841.00
Operating Expense- Misc Expense	-\$234.52
Operating Expense- Newsletter Printing	-\$19.95
Operating Expense- Observatory	-\$1,190.12
Operating Expense- Post Office Box	-\$132.00
Operating Expense- Postage	-\$36.22
Utilities- Electric Co.	-\$524.03
Utilities- Water Co.	-\$509.57



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

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



During the school year our club holds a **Monthly General Club meetings** at **Jenks Public Schools Planetarium**  
**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 3<sup>rd</sup> floor.**

[Click for Google Map Link](#)



### Sidewalk Astronomy Night

East side of Bass Pro in Broken Arrow near the lake.  
101 Bass Pro Drive, Broken Arrow, OK

[Click Map Link here](#)

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



### ASTRONOMY CLUB OBSERVATORY

Located on a hilltop about 25 miles SW of Tulsa  
Features: classroom, restroom, dome with 14 inch telescope and an acre to set up your telescopes.

Weather permitting we host two types of observing nights.

### PUBLIC OBSERVING NIGHT on a Saturday

This event is open to individuals and families.  
Club members set up telescope for public viewing.

\* Groups need to make separate arrangements.

### MEMBERS OBSERVING NIGHT usually on a Friday near new moon

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

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

[Click for Observatory Map](#)

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

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NIGHT SKY NETWORK –

Open Position

WEBMASTER JENNIFER JONES



**This Astrophoto  
could be yours**

**We need Member  
Participation**

**Send in your photos**

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