THE EVENT HORIZON

ST. LOUIS ASTRONOMICAL SOCIETY

Devoted to the Interest and Advancement of the Science of Astronomy

VOLUME 34, Issue 3
March, 2024

The Moon and Beyond

by

Tom Rathjen
NASA

Tom Rathjen of The Aerospace Corporation will be featured at the March meeting of the Saint Louis Astronomical Society. The event, cosponsored by NASA's Missouri Space Grant Consortium, is open to the public free of charge.

Mr. Rathjen will present an overview of NASA's "Artemis Program", which will return humans to the moon by the end of this decade. What space vehicles are being developed? What is their technical status? What is the schedule? How will Artemis be different from Apollo Lunar Landing Missions? His presentation will include descriptions of the Orion crewed spacecraft, the Space Launch System rocket, the "Lunar Gateway" station, and Human Landing Systems.

Thomas Rathjen has worked in human space flight for over 36 years. He was a senior executive at NASA Headquarters in Washington, DC, and an engineer at the Johnson Space Center in Houston, Texas. Since retiring in 2018, he currently provides human space flight consulting through The Aerospace Corporation. His many roles at NASA included directing programmatic integration for what is now the Artemis Program, as well as working on NASA's Commercial Crew Program. He also worked with NASA life sciences and space medicine endeavors, Space Shuttle flight crew equipment design, and space human factors research and development. He holds a bachelor's degree in Engineering and Applied Sciences from the California Institute of Technology (Caltech) and a master's degree in Human Factors Engineering from Wright State University. Besides the science projects, Tom also plays lead guitar in several Indianapolis classic rock bands.

Upcoming meetings:
April: Gautham Narayan, PhD "4 Meter Telescope in Chile"; Univ of Illinois
May: Fran Bagenal, PhD., Exploration of Jupiter System: Past, Present and Future; University of Colorado at Boulder
June: Steven R Gullberg, PhD., Archioastromy; University of Oklahoma
July 2024: Ashley Davies, PhD. "Juno Close Flybys of Io"; JPL
August: Bradley Tsalyuk, Exhibit Developer, Samuel Oschin Air and Space Center, Ca Science Center
October Pamela Gay, PhD, "Secret Squirrel Stuff", Planetary Science Institute
November: Robert Zubrin, PhD. "The Case for Mars"; The Mars Society
December K Michael Malolepszy "Probing the Sub-Microwave Universe, Part III SLAS Membe

March 15th Meeting will be In Person and Online! The speaker will be in person.

The meeting will begin at 7:30 PM Friday, March 15 in McDonnell Hall, Room 162, on the Danforth campus of Washington University, Saint Louis, MO 63105. McDonnell Hall is accessible from Forsyth Boulevard via Tolman Way. Free yellow zone and garage parking spaces are available. The event will also be available via Zoom online conference per the link here: **To join with computer or smartphone: use the below link.** https://zoom.us/j/8604505790?omn=91696112100 **meeting ID: 860 450 5790**

NSN Outreach Pins to be given out at March meeting Friday!

See page 2 to see if you're on the list!

Please come to pick up your pin!

Inside This Issue

President's Corner Memberships Night Sky Network Awards	2
Eclipse Stamps of 2017 StarB Quiz	3
Star Parties and NSN Astro Kits	4
Homemade Fest gallery	5
Telescope Refurbish SLSC Solar Sunday	6
Board Minutes	7
Financials	9
Events	10
Contacts	11

President's Corner
by Jim Small

The eclipse is HERE. This will be the last meeting before the big day on April 8th. I hope you're ready! May we be blessed with clear skies….. SLAS has an organized outing to Jackson, MO which is coincidentally where I'm going as well. Right on the centerline! I have a lifelong friend who lives in Jackson, so my sister and I are going Sunday night to stay then observe it from Greg's house. Can't wait.

Make sure you test your equipment. There are still a solar Sunday or two left at the SLSC if you want to try stuff out in front of a live audience. I haven't completely decided on what I'll set up, but I'm pretty close.

At the meeting, I'll be talking about some apps you can use to help with the eclipse. Most apps get your location from your phone and several of them will give you audio countdowns to various aspects of the eclipse. Here are a couple of links so you can try them out yourself if you want:

https://eclipse.aas.org/resources/apps-software

https://theeclipse.company/app

We will be recognizing those members who participated in outreach at the **in-person** meeting this month. If you're on the list in the article below, **please make an attempt at attending the meeting this month**. By the way, the pin this year is spectacular! Hope to see you there!

Registration for MSRAL (June 7-9) is open. Register before May 1 for the early bird price. Registration goes up by $10 beginning May 1. Here is the direct link:
https://msral2024.org/
You can also access the link from the MSRAL home page at msral.org. It is being held in Omaha, NE this year. Hope to see you there!

ALCON is also close by this summer and will be hosted by the Kansas City group. July 17-20. Registration is open. The link may be found on the home page at
https://www.astroleague.org/
here is the direct link: **https://www.tickettailor.com/events/astronomicalsocietyofkansascity/1187693#**

I haven't seen any information for the RASC GA virtual conference this year, but I hope it happens soon. They usually hold it the beginning of May.

If you join the AAS at the amateur rate ($54/year) you can attend their virtual conference for $104! It runs from June 9 -13 and will have TONS of speakers (100+) I plan on attending… I always hear some GREAT talks on any subject! AND it's only $4 more than ALCON. Maybe I'll see you there….

Clear skies (I hope), Jim Small

SLAS Memberships Expiring in March

Mary		Barteau
Bill		Biermann
Nick		Bodi
Gene	J.	Dultz, Jr.
Richard		Fefferman
Chris		Hanson
Lisa	M.	Holderle
Jeff		Kisslinger-
Rosanne		LeBaige
Michael & Lynnea		Malolepszy
Rick	A.	Menendez
Fred		Raines
Rhonda	S.	Whelan-
Benjamin		Winningham
William		Winningham
Barry		Young

SLAS Memberships Expiring in April

Ken		Hargrove
Dan		Howard
John	W.	King
David		Maffitt
James		Malke
Carl		McCullough
Alfred		Schovanez
Thomas		Vesely

Night Sky Network Outreach Awards to be Given Out at Friday's Meeting

by

Mark Jones

At the March 2024 meeting Friday, SLAS will be recognizing the members who volunteered for Public Outreach in 2023. We had 40 members volunteer for events in 2023!!

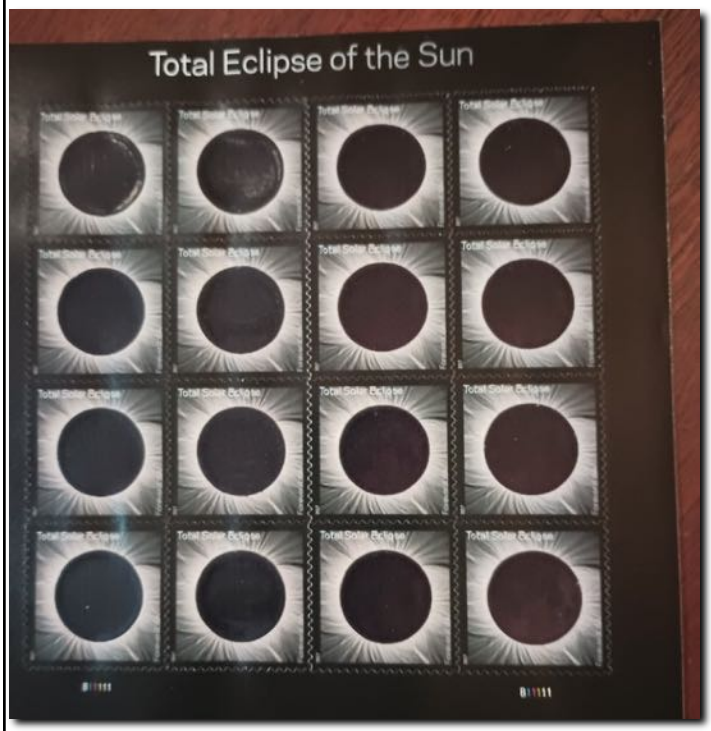
NSN guidelines allow awarding of volunteer pins for members who volunteered for 5 or more events in 2023. If you have trouble updating or checking your numbers, please contact me. **https://nightsky.jpl.nasa.gov/news-display.cfm?News_ID=1015**

Thank you to all who volunteered in 2023, please update your numbers by Jan 20, 2024 Here is a quick talley based on current NSN records

John Strebeck	91	events;	259.5 hours
Kathleen Strebeck	85	events;	240.5 hours
Donald Ficken	39	events;	115.5 hours
Carl McCullough	26	events;	80 hours
Mark Jones	26	events;	78.5 hours
Cook Feldman	22	events;	77.5 hours
Richard Fefferman	17	events;	39 hours
Bill Biermann	16	events;	42.9 hours
Stephen Kelly	15	events;	39.5 hours
Dennis Latinett	15	events;	37.8 hours
Randy Harrison	12	events;	45 hours
Bill Breeden	12	events;	42 hours
Richard Jennings	12	events;	23.8 hours
Ronald Sides	11	events;	28 hours
Rick Menendez	9	events;	18 hours
James Small	8	events;	23 hours
Larry Campbell	6	events;	17 hours
Maryanne Anglongto	6	events;	15.5 hrs
Bradley Waller	6	events;	15 hours
Chris Hanson	5	events;	16.5 hours
Frank Mack	5	events;	11 hours
Phyllis Nolan	4	events;	12 hours
Mary Barteau	4	events;	10.5 hours
Kenneth Levy	4	events;	10 hours
James Malke	4	events;	8.5 hours
Alfred Schovanez	3	events;	11 hours
Frederick Fischer	3	events;	10 hours
Larry Meyer	3	events;	6.5 hours
Joseph Barteau	3	events;	6.5 hours
John Duchek	3	events;	6 hours
Timothy Hulla	2	events;	9 hours
James Idoux	2	events;	7.5 hours
Rosanne LeBaige	1	events;	6 hours
Laureen Caliman	1	events;	3 hours
Kunal Kotkar	1	events;	3 hours
Tom Keutzer	1	events;	2 hours
Allan Stewart	1	events;	2 hours
Benjamin Winningham	1	events;	2 hours
David Adkins	1	events;	2 hours
Jeff Kisslinger	1	events;	2 hours

Eclipse Stamps of 2017
by Bill Bierman

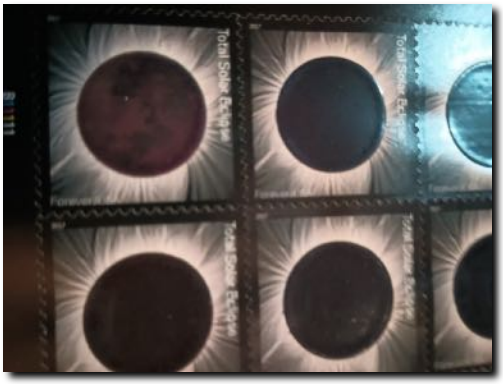
We reminisce about the 2017 eclipse, and fortunately have the 2024 eclipse to look forward to. In 2017 the excitement was very high due to the anticipation of the first eclipse in the US for a long time. As a result, the US Post office issued a very special stamp to commemorate the 2017 eclipse. The 2017 eclipse of the sun stamps were thepost office's first use of thermochromatic Ink technology.



The stamps above showed an eclipsed sun, with corona visible.

The stamps depict a 2006 photo taken by retired NASA astrophysicist Fred Espenak. When heat is applied to the stamps, such as sunlight or touching them, the black eclipse disappears, and the stamps reveal an image of the Moon. This technology had historically been used most often in food and beverage products, as the design effects are fascinating. The stamps were designed to help educate and fascinate the public. There was quite a bit of testing that was needed in order to determine the right amount of thermochromatic ink needed to achieve the desired effect. Also, the application of the ink caused a slightly undesirable effect as a ripple appearance occurred when viewing the stamps from the side.

Another side effect is a degradation of the ink and the requirement for long-term storage. If the stamps were purchased from the US Post office, a special black envelope was included to store the stamps. Since the stamps are sensitive to UV light it was necessary to reduce or eliminate that as much as possible. I had a chance to test this. I have several sets of stamps. One set was stored in an album without any protection. A second set was stored in the protective sleeve. The set without any projection seems to have lost the ThermoChromatic effect entirely. As you can see from the photo below, the protective set still has the ability to show the moon, but it is not nearly as prominent as it was back in 2017. Perhaps this is fitting, as the memory of the 2017 event fades, so does the stamp. But we always have another eclipse to look forward to!



From the StarBQ Quiz: Impossible Events?

Circle best answer

4-1. Is it possible for JWST to observe the center of the Milky Way in June? Yes No

4-2. Someday Betelgeuse (declination of +7.5 deg) may supernova. If Betelgeuse explodes on June 22nd when it is in conjunction with the Sun (declination of +23.5 deg), is there a location on the Earth's surface you go to see Betelgeuse in dark skies (ie better than nautical twilight=Sun 12 degree below horizon)? Yes No

4-3. Is June a good month to look for Aurora borealis from Reykjavik Iceland? Yes No

4-4. You are standing on the moon at the Apollo 11 landing site. Can you see the earth setting? Yes No

4-5. What moon phase can you see a sunset at the Apollo 11 landing site? (circle closest answer) First Quarter
Waxing Gibbous Waning Gibbous Last Quarter Full Moon

++
++

Answer #4-1: Yes at that time the center of the Milky Way (Gemini) is opposite to the Sun.

Answer #4-2: Yes Southern hemisphere. Since Betelgeuse is in conjunction (same RA) with the Sun, Betelgeuse will be directly above the Sun at noon in the Southern Hemisphere. If you want to make sure the Sun is 12 degrees below the horizon at local noon, then your latitude would need to be at least +23.5 - 90 -12 = -78.5 degrees. The furthest south you could be would be and still have Betelgeuse above the horizon at local noon would be +7.5 - 90 = -82.5 degrees. Using Stellarium your latitude can be about -45.5 and Betelgeuse will be just above horizon when Sun is -12 below the horizon. Only major land that far south (-45.5) is extreme southern New Zealand, Southern tip of South America or Antarctica.

Answer #4-3: No Reykjavik is latitude +64 degrees. The arctic circle is +66.5 deg. Therefore the Sun does dip below the horizon around local midnight but never far enough to have full twilight.

Answer #4-4: No the Eagle landed in the Sea of Tranquility in Site 2 at 0 degrees, 41 minutes, 15 seconds north latitude and 23 degrees, 26 minutes east longitude. The lunar libration in longitude can reach 7°54′ in amplitude. Since the Moon is tidally locked this site never sees earth rise of set.

Answer #4-5: closest to First Quarter, the Eagle landed in the Sea of Tranquility in Site 2 at 23 degrees, 26 minutes east longitude. Sunrise occurs about 2 days before First Quarter

Star Parties and NSN Astro Kits
by Bill Biermann

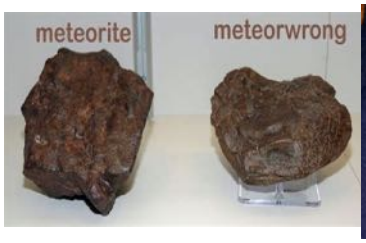
Everyone realizes that the best part of a star party is the WOW factor that comes from viewing objects through a telescope. We had this intention when we scheduled 2 Star Parties in late January at Parkway HS and St. Josephs of Imperial. Naturally, the weather did not cooperate, and we could not get to go outside. So now what? Plan B of course! We hosted indoor educational sessions. And astronomy kits came to the rescue!

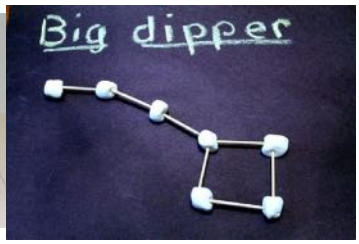
SLAS possesses several hand-on kits that were developed and distributed by the Night Sky Network. Each of the kits have a different theme and contain hands on activities and presentations. The target audience for most of the content is 12-18 years old, and most content is best presented in a classroom environment with audio visual equipment. For both star parties mentioned above, we had a much younger age group, and our venue was a Gym, so using the kits would be somewhat challenging.

Adapt the Kits

Since we did not have the ideal venue or audience for the kits, we ended up adapting the kits for a younger audience, and we also added events that were outside of the kits, and developed a few games with space themes outside of the kits.

The first star party was held at St Joe's (Imperial). We added hands on activities, such as making constellations with marshmallows and toothpicks. We also used our





NSN kit called “Meteorite or Meteor wrong.”

The Meteorite and Meteor Wrong kit is a fun, group-based activity. The presenter gives clues about imposter rocks on earth, and the kids get to interact as a group, separating the imposters from the real Meteorites. Participants get to hold an actual asteroid.in their hand! Being short of volunteers, my daughter volunteered for this star party.

The second star party, held at Parkway High School, had an estimated 500 attend the event (with 210 passing through our booth). We developed a game called “Planet Ping Pong.” The kids first made paddles (paper plates painted or colored with planet themes and popsicle sticks attached to the plates for handles. The Ping Pong ball was a balloon that was colored to resemble their favorite planet. Then two opponents would use the paddle to hit the balloon back and forth. It was a big “HIT” as evidenced in the next column at the top..

With our SLAS labor shortage, we also recruited student volunteers, who were extremely helpful in staffing our activities (next column)

We also adapted the NSN planetary science kit, and we made scale models of the Sun and planets (9 planets lol). We handed out the nine planets, and had the kids confer with each other, and they had to decide what order the planets belonged in.

(Below) SLAS volunteer Kunai Kotar demonstrates the scale and order of the Solar System.

We also discussed planetary scale and sizing of planets. We used an interactive approach. We had the kids huddle amongst themselves and decide (via committee) upon planet order. We also demonstrated how far the outer planets really are via scale.

We also had the opportunity to engage the parents about the upcoming eclipse and handed out eclipse glasses.

PS: If anyone would like to know more about our astronomy kits, contact me, and we can discuss how to adapt the kits for the venue and the age group.

Scenes from Homemade Fest clockwise from above left:
Eclipse cake.

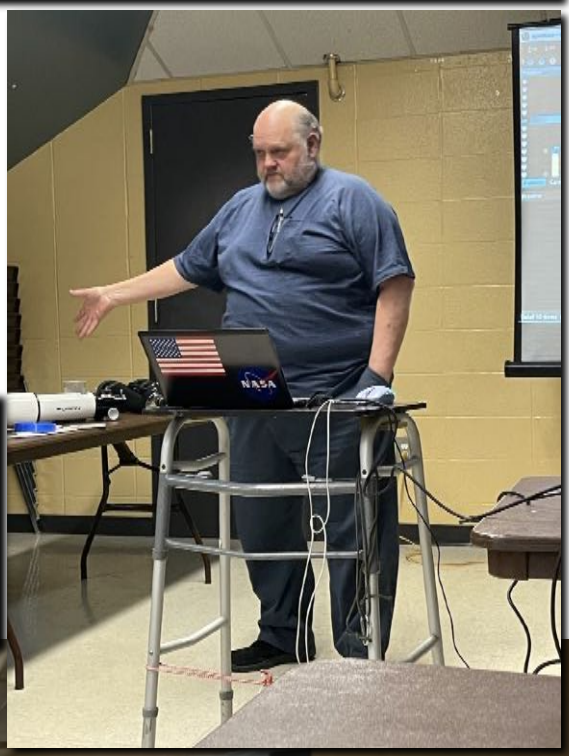
Mark Jones talking about refurbishing a Meade that fell over

Grant Martin talking about innovations using common equipment

Nice group gathered to listen

Brad Waller talking about how he got Tim Russ to speak to us.

Grant talking to the group.



Telescope Donated to SLAS and Possible Refurbishment Opportunity for Members
by Mark Jones

Our club just received a donated C-8. It is in rough shape. We are trying to decide if it is worth restoring. SN is 236295. Dust cap is metal. Secondary has plain machined mirror mount no Celestron logo. The finder is an upgraded 40mm option. The RA control knob is upgrade with a gear-reduction knob for finer adjustment. There is also a piggy-back mounting bracket on bottom of tube to mount a camera with 1/4x20 thread. Dual sync motors in base. This early model has a sidereal rate clock drive, no variable speed. Tripod the surveyor type split leg. There is an equatorial wedge on the tripod.

SLAS would be looking for a volunteer to refurbish the telescope, hopefully to make it operational again. It needs to be disassembled and cleaned. There are some rusted and corroded parts that need to be cleaned or replaced. I can clean the optics, but I would like someone to work on the cleaning and corrosion.

Anyone interested contact me soon. If no one volunteers then we might sell it as is.

PS - I posted a description on CloudyNights asking for details about age and type, here is the response. The first 2 of the serial # means it was made in the second quarter of the year. The middle 3629 is the production number. The last 5 indicates the year as 1975. It's a sand cast model and they are generally considered more desirable than the later diecast models. IIRC, they changed to the diecast production in late '78. The finder is a upgraded 40mm option. The sand cast model tripods are a bit more robust and sturdier as well. It and the wedge changed some with the diecast versions. The power cord plug is the older round Cinch Jones type. The plug ends can still be found on ebay and attached to a standard extension cord that's end is cut off. All it looks like it needs is some cleaning up and it's worth it.

A simple Google search showed a few threads including one on refurbishing another '75 model.

https://www.cloudyni...-and-refurbish/
https://www.cloudyni...e-celestron-c8/
https://ngc1514.com/...n/disassem.html
https://ngc1514.com/...n/disassem.html

Above: Astronomers from SLAS and members of the public are enjoying views of the Sun at Solar Sunday, to be continued through the eclipse and beyond.

FOR SALE:

New Meade 8 inch LX90 Computerized/GPS Telescope with very heavy/sturdy Tripod & the following accessories;

1. AudioStar Controller
2. Right Angle "APERTURA" VIEW Finder
3. Right Angle Telescope Viewer
4. Celestron Silver Metal Case with 6 eyepieces & 7 SUN/MOON FILTERS.
5. Celestron "Power Tank" for operation of Computerized/GPS when. electricity is not available. White & red lights included.
6. 25 foot extension cord from "Power Tank" to Telescope.

Asking Price $2,850
Photos available via text.

Ken Kibort
Cellphone text or call 618-477-0066
Email kkibort007@gmail.com

St. Louis Astronomical Society
Devoted to the Interest and Advancement of the Science of Astronomy
Executive Board Meeting Minutes 2/1/2024

1. Opening Activities: a. Attendance: Jim Small, Mark Jones, Dennis Latinette; Randy Harrison, Brent Buch, Bradley Waller, Bill Winningham, Will Snyder b. Open Meeting: 7:03pm c. Approval of last month's minutes. Motion to approve minutes by Brad second by Larry, minutes approved. d. Next Board meeting date (on approval of board): 3/7, 4/4, 5/2, 6/6, 7/11, 8/1, 9/5, 10/3, 11/7, 12/5 Meetings will be via Zoom until further notice: Standing Action: SLSC Report by Will Snyder Below is what's been approved so far: We plan to be out for PTV for First Friday this week on 2/2. We'll plan PTV for the next First Fridays on 3/1 and 4/5, but unfortunately, we will not be able to have telescopes at the May (5/5/24) First Friday due to a scheduling conflict. In March, we're planning to kick up a spring version of Solar Sundays in the lead up to the eclipse. We'll be planning solar (all Sundays) PTV for 3/10, 3/17, 3/24, 3/31, and 4/7. By March 10th, it is looking like the Planetarium entrance in Forest Park will finally be reopened, so we should have good crowds for those Sundays. Observing is 11am-3pm. Come Memorial Day, we'll start back up with Solar Sundays each Sunday between Memorial Day and Labor Day. Feb and Mar FF planetarium parking lot not open, sunset until 9pm; April-June use entrance to set up scope, not Archery Field, parking lot open, July-Dec are still being finalized. Solar Sunday run until Sep 1st SLAS First Friday Volunteers for 2023 - Bill Breeden 4; Chris Hanson 4; Bradley Waller 3; Randy Harrison 3; James Small 2; Cook Feldman 2; Richard Jennings 1; Benjamin Winningham 1; Stephen Kelly 1 SLAS Solar events volunteers for 2023 - Cook Feldman 6; Randy Harrison 5; Bradley Waller 3; Dennis Latinette 2; Mark Jones 1; Alfred Schovanez 1; Chris Hanson 1 Lead for First Friday is Brad and Solar Sunday Lead is Randy **Action: Randy and Brad to add SLSC events to NSN calendar** SLSC Feb 17th – Free lecture, Speaker Erika Nesvold Elaine Cha, "Can Our Earthly Ways Thrive in the Cosmos?" February 17 @ 6:00 pm - 8:00 pm, contact Will Snyder for tickets SLSC is organizing busses to travel to the eclipse path. Details TBD

2. Upcoming General Membership meeting topics: a. Speaker: Angela Speck, PhD, "In the Moon's Shadow – Chasing Eclipses" b. Schedule room at Wash U.? Jim has room schedule Feb-April c. Who is recording meeting? Brent will record d. Special Awards needed: NSN Volunteers Pins will be awarded e. Speaker Press Release and social media: Not yet. f. Special Business – None g. A101 – Your 2024 Solar Eclipse Mark Jones Action: Brent to upload meeting recordings for Sep-Dec. Thanks to Brent for uploading recordings for Sep-Jan website, action is closed. Dennis will be in charge of Hospitality for Feb f. Hospitality: a. Budget – 2023 Budget $360, balance $96 Budget – 2024 Budget $360, balance $ Action: Larry to send out request for help on Hospitality, Larry will talk personally to members for additional help, action closed.

3. SLAS Financial Report a. Balance Sheet: no Treasurer data available for meeting. b. Profit/Loss report: c. Annual Budget meetings: Insert text in budget commentary to clarify depreciation amounts listed in past budgets. d. Corporate filings: 2024 Budget: $20, paid in even years only, not due until May 2024 e. Insurance; 2024 Budget $1165 f. Astro League Dues: 2024 Budget: $1070 Action: Need to get Bill and Jim together to reinvest CDs. Bill suggests changing to Commerce Bank for CDs. Will move at least $20,000 to CD's. Jim and Bill set up 2 CDs on 1-29-2024, at current bank for $15K each at 5%apr, Action can be closed. Action: Treasurer asks that everyone get their 2023 expense reimbursements by end of day Friday so that I can close out 2023 and finalize the financials for the January Newsletter. All requests have been received. Action can be closed.

4. Speaker Committee If you are working on a Presenter, please keep Brad informed. Budget – 2023 Budget $400, Balance -$162

Budget – 2024 Budget $600, Balance $ b. Upcoming speakers: SLAS Monthly Meeting Presentations 2024

Month	Name	Topic	Sponsor
Jan-24	David A Williams, PhD Arizona State University	ASU Explores the Solar System	
Feb-24	Angela Speck, PhD UT San Antonio	In the Moon's Shadow – Chasing Eclipses	
Mar-24	Tom Rathjen	The Moon and Beyond	NASA
Apr-24	Gautham Narayan, PhD	4 Meter Telescope in Chile	Uof IL
May-24	Fran Bagenal, PhD	Exploration of Jupiter System: Past, Present and Future	Univ of Colorado
Jun-24	Steven R Gullberg	Archeo Astronomy	Univ of Oklahoma
Jul-24	Davies, Ashley G PhD	Juno, Close Flybys of Io	JPL
Nov-24	Robert Zubrin	The Case for Mars	Mars Society

*Possible Live Speaker (Speaker budget may be used to pay for hotel room for speaker) d. Topics of interest e. Stipends f. Travel Action: Brad to contact Cameron Moye a Wash U. grad student who works for Brad Jolliff at Washington U. He could probably speak at our meeting on his work on Lunar South Pole planning. Brad has sent emails to Cameron but no response, Brad will email Dr. Jolliff. As of early January, no response yet. Action: Jim needs to send Brad the contact Dr. Speck: Mailing Address; Bio Info and Topic Description. Jim has provided address and Bio. Action closed

5. Membership Initiatives a. Budget – 2023 Budget $600, Balance $0 Budget – 2024 Budget $600, Balance $ Welcome Aboard Meetings – These have been replaced the following standing action. Standing Action: Mark Jones will send out member orientation materials when member joins. Also, schedule monthly member chat meetings are held via Zoom on the Thursday after the general meeting. c. Raffles – not planned d. Attendance prizes – In-person and virtual members will be eligible for attendance prizes in 2024, next prizes in March Action: Engaging younger people with SLAS. Try live-stream from JCO via Twitch. Jim to perform dry-run of live stream and Brent. Link to how-to Twitch https://riverside.fm/blog/how-to-stream-on-twitch; https://twitchtracker.com/channels/live.

6. Membership Recognition a. Total Budget 2023 Budget $500, Balance $123 Total Budget 2024 Budget $500, Balance $ b. NSN Outreach Awards: Order pins. Awards planned for February meeting. Action: Jim to purchase 25 NSN pins for Outreach Awards. This was done, action closed. Action; Mark will create the NSN certificates and send to Brad for printing. Mark sent pdf files for certificate to Brad, action closed, Action: Brad to print NSN certificates and bring to meeting c. Membership Report: From Don Ficken: The January 2024 membership report for SLAS shows 227 members. We have gained two members this year with several new family memberships. We have 13 fewer members than the 240 members reported at this time last year. d. Member anniversary – Next event is November meeting, 2023 pins are still in store room e. Special Award program -

1. Special Award Committee report: Chairman: Bill Biermann. Members: Larry Campbell, Jim Small, Mark Jones, Sharon Bertram, Fred Schovanez, Bill Neubert, Grant Martin, Bill Bierman, Rich Heuermann, Joe Marcus 2. Special Award deadlines: Current Nomination deadline is Sept 1st 3. Nomination reviews: by October 1st 4. Award selection: selections made in November

5. Awards presented at December meeting – Action: Bill Biermann to setup Specials Award meeting for early 2024 to discuss nominations. Action closed. Report from Bill Biermann - Awards Committee survey was conducted, to Identify new and existing items of concern. Various opinions were rendered, along with some hypothesis of root cause, along

(Continued on page 8)

(Continued from page 7)

with some preliminary analysis. 6 out of 10 committee members responded. Wednesday March 13th for the first meeting, at 6pm. The second meeting will be in June , TBD. Action: Bill Biermann to create March 13 meeting for Special Awards Committee in NSN calendar

7. Outreach a. Budget – 2023 Budget $500, Balance $500 Budget – 2024 Budget $500, Balance $ b. Member Training Program Status: c. Purchase of T-shirts for volunteers completed training per budget: d. Purchase signs for outreach per budget: e. Upcoming outreach events: Indoor programming for First Friday at the SLSC and planning for STEM programs Gateway Arch - March 23, 2024 (Saturday), May 11, 2024 (Saturday), June 14, 2024 (Friday), July 12, 2024 (Friday), August 10, 2024 (Friday), September 13, 2024 (Friday), Oct 18, 2024 (Friday) Francis Park – Dates for 2024: April 17, May 15, June 12, July 10, August 7, September 11, October 9
Tower Grove Park – April 13, May 18, June 15, July 13, Aug 10, Sep 14, Oct 12 DobsonFest – Sep 14 hosted by Riverbend Astronomy Club First Friday – Feb 2, Mar 1, Apr 5, None in May, June 7. Events for July-Dec still being finalized Solar Sunday – 3/10, 3/17, 3/24, 3/31, 4/7, restart 6/2, 6/9, 6/16, 6/23, 6/30, 7/7, 7/14, 7,21, 7/28, 8/4, 8/11, 8/18, 8/25, 9/1 Note – Planetarium parking lot should be open for all events after Mar 10th. Dobson Fest – 9/14 hosted by Riverbend Action: Randy to add Dobsonfest to NSN calendar and solicit volunteers f. Awards/recognitions – g. NSN Outreach hours: Final 2023 numbers: In 2023 we had 22 SLAS members volunteer for 5 or more Outreach Events and 40 volunteer for at least event! In 2023 we had 96 unique outreach events. 47 events were part of our annual events like Stacy, Arch, Tower Grove, SLSC, JCO, Francis. Also, we had 21 library telescope events. That means there were 96-47-21= 28 events for scouts, schools, etc that we also did. We don't count hours for: SLAS Meetings, Outreach Training, Committee or Board Meetings, Homemade Fest or Star-B-Q. Counting the Badlands National Park events done by John and Kathleen Streck In 2023, SLAS members volunteered for 193 events and logged 1379 hrs for NSN events Since June 2007 SLAS members have logged 14,778.9 hrs for NSN events! Action; Mark need T-shirt design. Mary and Joe Barteau volunteered to come up with T-shirt designs. Slideshow of examples sent to Board on 10-31-23. Action remains open until final design selected. Board preferred Safety Green in style #3 is preferred by Board Do they have t-shirt in a Tall/ long?

8. Old Business: A. Discuss issues with volunteers for star parties. Perhaps appoint a coordinator whose main job is to insure we have adequate number of members in the volunteer pool for events. Discuss methods to encourage members to volunteer for star parties. Try to find out why people aren't volunteering. Come up with an action for this issue.Possible actions: convene a virtual meeting for all NSN coordinators to discuss volunteer ideas Send email asking for a volunteer coordinator Conduct monthly A101 about Outreach Training have a new member events (1) welcome aboard and orientation; have new member events at JCO; new member telescope help events, mentor outreach. Find Volunteer Coordinator for LTP program only Action: Mark to schedule a virtual meeting for all NSN coordinators to discuss volunteer ideas. Meeting planned for Jan 31st, action closed. Coordinator Meeting Report: We increased the number of NSN coordinators from 12 to 20, and we held a meeting (1/31/24) to discuss how to get more volunteers. Decision was made to create a call list and call each member an ask them if they wish volunteer. Timeline: final Script by 2-11-24; final Email by 2-14-24; final Call list by 2-23-24; calls made: starting 2-23-24 end call by 3-10-24 B. Scholarships from SLAS- Questions: How to fund via interest earned, How do we select candidates, do we need a committee, are there tax impacts for this, How do we define qualifications? Will we need to send 1099 form? Action: Brad to set up meeting to discuss how scholarship could be funded and executed. Brad will talk to his tax adviser but not until May Board Meeting. C. Brad would like to do an article for "The Reflector": How I got to have STAR TREK for a Monthly Meeting. What are the procedures? Brad should look in the Reflector magazine and contact the editor. SLAS Board does not require to approve Brad's article in advance of publication. Action: Brad to contact AL and Reflector directly, no need for Board to be involved. Action to be closed.

9. New Business Eclipse glasses policy change. I propose we update our current policy about handing out free glasses only at eclipse outreach events and offer them at ALL events, including SLAS general meetings through the April eclipse. I would propose we give out more than one pair per person if they ask. For February I would suggest we hand out, (for adults only) up top 5 glasses per person, then increase that to 10 glasses per person for March thru April. For kids we would hand out a max of 2 per kid for all events. Discussion: Motion to accept the policy second by Larry. Motion passed.

10. Other Committee Reports: If needed

A. SLSC Business: a. First Friday actions – see above b. Other immediate business

B. SLCL Business a. Annual contract – No contract yet for 2024. b. Upcoming events – Per Don Ficken: SLCL is just beginning a transition to a new event/space management system that requires them to manually transfer programs (of which there are 1000s) from the old system to the new. They were asked to cut back on the number of programs offered this spring and hold off on booking new programs during this time to try to keep the workload semi-manageable. They're beginning the process at the end of the week and hope to be fully operational with the new system by June.

C. Jefferson College Business: a. Committee Meeting report: Permanent signage built by JC has been added. Action: Mark to submit receipt for step stool. Mark submitted receipt and was reimbursed, action closed Action: Mark to complete repair of 12.5" Dob and setup at JCO. Repair done and ready to test at Mark's house before moving telescope to JCO. b. Upcoming Outreach Event: JCO –Feb 17, Mar 16, April 20, May 18, Jun 15, Jul 20, Aug 17, Sept 14, Oct 10, Nov 16 Action: Mark to buy replacement part for the RA motor encoder part # 820019. According to Meade. They don't have the item in stock at the moment, it might take a month or 2 until we get them. We can create the order so that when it becomes available, we'll let you know automatically. The cost would be $70.00 plus $15 for shipping.

D. Library Telescope Committee a. Budget – 2024 Budget none requested, expenses will be covered by escrow balance of $2460
b. Upcoming builds or maintenance events – SLCL maintenance event 2/1/24. Jackson MO maintenance day scheduled for 2/1/24 c. Maintenance budget – none requested d. Mileage re-imbursement – see above e. Promotional materials - none requested

E. SLAS Social Events a. Budget – 2023 Budget $365, Balance $123 Budget – 2024 Budget $390, Balance $ Homemade Fest - 2024 Budget $150. Room has been reserved for Feb 24, 2024. Need to discuss timing for setup, Homemade Fest Actions: M/Cee - BradFood, presentations, cleanup and departure. Who is bringing paper goods, drinks, powerstrips, coffee, tea, sugar, Coffee Pots, ice, (Mark J) Computer, screen, creamer (Jim Small) Who is bringing door prizes (Brad will handle $100)Time: 4:30pm to 10:00pmsetup 4:30-5:30pm (Enter via the entrance by the flagpole. There is an elevator and 4-wheel carts if you have equipment to unload. Potluck dinner 5:30-6:30pm Presentations and door prizes 5:30-10pmc. Star-B-Q – 2024 Budget, $240

Other

F. SLAS Brochures a. Budget 2023 $600, Balance $373 Budget 2024 $600, Balance $ b. Quarter cards – Action: Brad to create new artwork for Quarter Card.

G. Loaner scope Program a. Budget – 2023 Budget $ 100, Balance $0 Budget – 2024 Budget $100, Balance $0 b. New donations: None
c. Replacement Parts for the LTPs d. Items for sale several: See Website for details. Messages of sale also posted on SLASDialogs and STLAstronomy.groups.io

H. SLAS Library a. Budget – 2023 Budget $500, balance $54 Budget – 2024 Budget $200, balance $ Action: Jim to provide all new books, DVDs to Mark so he can inventory. Mark has cataloged all new books and returned them to Jim Small, action closed.

Other – 2024 TSE. How do we want to prepare for the 2024 Eclipse? Add FAQ to website? Pick a SLAS location to observe? Mark has coordinated with Walmart Superstore in Jackson MO. We can use space in SW corner of parking lot SLAS has received 2 Eclipse posters for Outreach activities, from Eclipse Taskforce. SLAS purchased 10,676 eclipse glasses in 2023. They are for sale and to give-a-way at Outreach Events. We have delivered about 2500 glasses so we have about 8,000 left. SLAS has 11 Sunspotter Telescopes to loan to schools and other organizations for the TSE. 4 Sunspotters have been loaned to Rockwood School District until after the eclipse. 1 Sunspotter loaned to Rich Fefferman for Arch events. 1 Sunspotter loaned to Bill Breeden for Francis Park events. A101 for February Twitch Presentation on the eclipse, maybe several

I. Merchandise Budget – 2023 Budget $650, balance $ Budget – 2024 Budget $100, balance $ 36 of the new coffee mug design are ready for sale to members. $10 each or two for $15

J. Telescope Making

K. Newsletter a. Budget 2023 $600, Balance $21 Budget 2024 $600, Balance $

L. Website -a. Budget 2023 $750, Balance $207 Budget 2024 $750, Balance $ Website fee of $233, been paid for 2024 and Jim has been reimbursed

M. Social 74 members of Private FB page 3123 followers on Public FB

N. Night Sky Network

O. SLASdialogs (part of Website Budget) SLAS Groups.io – 131 members Annual $110 account fee is coming due Jan 8th
3.2GB of 30GB is being used Action: Mark to submit $110 bill to treasurer. Mark submitted receipt and was reimbursed, action closed

P. Dark Site – Special Use Permits have been received for Danville and Whiteside for 2024. Mark Jones created a step-by-step document on how to submit futures applications. A copy I stored in the groups.io folder linked https://groups.io/g/SLASDialogs/files/Permits.

Q. Observing Programs

R. Star Parties Donation:

11. Closing Activities: Motion to adjourn the meeting by Bradley Waller, second by Dennis Latinette

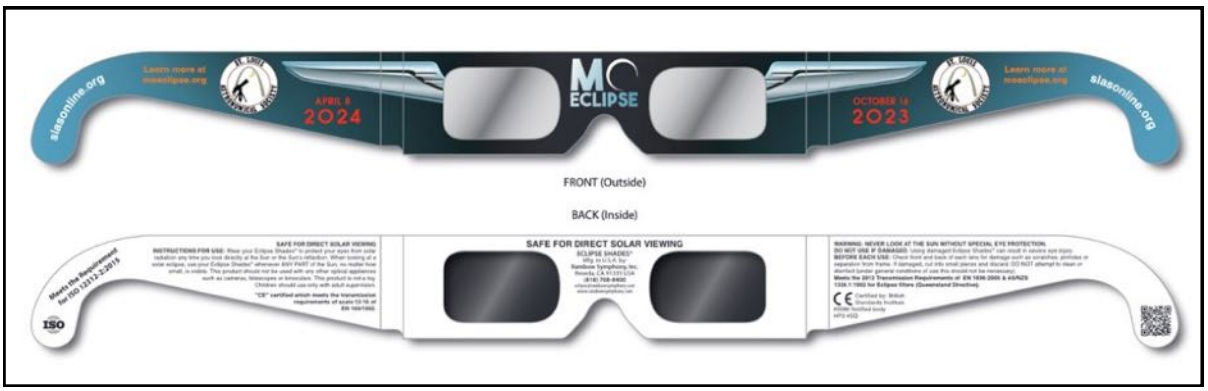
St. Louis Astronomical Society
Profit & Loss Budget vs. Actual
January through February 2024

	Jan - Feb 24	Budget	$ Over Bud...
Ordinary Income/Expense			
Income			
Events Income	200.00	100.00	100.00
Magazine Subscription	444.50	725.45	(280.95)
Membership Dues	550.00	870.00	(320.00)
Total Income	1,194.50	1,695.45	(500.95)
Cost of Goods Sold			
Magazine Subscriptions	343.94	725.45	(381.51)
Total COGS	343.94	725.45	(381.51)
Gross Profit	850.56	970.00	(119.44)
Expense			
1-Programs & Events	30.66	910.00	(879.34)
2-Newsletter	317.48	100.00	217.48
5-Loaner Scopes	11.84	25.00	(13.16)
6-Brochures		100.00	(100.00)
8-Website	343.47	400.00	(56.53)
9-Administrative Expen...	583.99	623.80	(39.81)
Total Expense	1,287.44	2,158.80	(871.36)
Net Ordinary Income	(436.88)	(1,188.80)	751.92
Other Income/Expense			
Other Income			
Interest Income	131.06	10.00	121.06
LTP Receipts	10.00		10.00
Total Other Income	141.06	10.00	131.06
Other Expense			
LTP Disbursements	158.20		158.20
Total Other Expense	158.20		158.20
Net Other Income	(17.14)	10.00	(27.14)
Net Income	**(454.02)**	**(1,178.80)**	**724.78**

St. Louis Astronomical Society
Balance Sheet
As of February 29, 2024

	Dec 31, 23	Feb 29, 24
ASSETS		
Current Assets		
Checking/Savings		
Checking - First Bank	12,072.69	11,067.36
Deposit, Certificate of	16,000.89	46,131.50
Library Telescope Escrow	1,964.87	1,816.67
PayPal	152.96	1,080.87
Savings - First Bank	43,138.18	13,138.63
SLAS Eclipse Conference Escr...	2,580.32	2,580.32
Total Checking/Savings	75,909.91	75,815.35
Other Current Assets		
Inventory Asset	841.87	781.21
Undeposited Funds	75.00	330.00
Total Other Current Assets	916.87	1,111.21
Total Current Assets	76,826.78	76,926.56
Fixed Assets		
Accum Depr - Office Equp	(216.65)	(216.65)
JC Scope and Observatory	9,137.44	8,583.64
Office Equipment	216.65	216.65
Total Fixed Assets	9,137.44	8,583.64
TOTAL ASSETS	**85,964.22**	**85,510.20**
LIABILITIES & EQUITY		
Equity		
Opening Bal Equity	8,497.66	8,497.66
Retained Earnings	81,754.13	77,466.56
Net Income	(4,287.57)	(454.02)
Total Equity	85,964.22	85,510.20
TOTAL LIABILITIES & EQUITY	**85,964.22**	**85,510.20**

Eclipse Glasses For Sale to SLAS Members SLAS 2023/2024 Eclipse Glasses have arrived! They will be available to purchase at our regular meetings or contact Mark Jones (secretary@slasonline.org) to pick up glasses anytime. Price $1 each, or 50 glasses for $35



Upcoming Star Parties and Other Events

For details on these and other upcoming events, check out the Night Sky Network Calendar linked on the Home Page for SLAS at http://www.slasonline.org

SLAS Executive Board Meetings All meetings are on First Thursdays unless noted. ***Note: Board meetings will be via Zoom until further notice.*** Dates 4/4, 5/2, 6/6, 7/11, 8/1, 9/5, 10/3, 11/7, 12/5

SLAS Dark Sky Observing Dates All dates on Saturdays 4/6, 5/4, 6/1, 7/6, 8/3, 8/31, 9/28, 10/5, 10/26, 11/2, 11/30, 12/28

Francis Park Events: These events are on Wednesdays of the week nearest the first quarter Moon 4/17, 5/15, 6/12, 7/10. 8/7, 9/11, 10/9

Aim for the Stars Public events held on 3rd Saturdays at the Jefferson College Observatory and Patio. 3/16, 4/20, 5/18, 6/15, 7/20, 8/17, 9/21, 10/19, 11/16, 12/21

Stargazing at the Arch Events for the public held at the Gateway Arch 3/23, 5/11, 6/14, 7/12, 18/10, 9/13, 10/18

Sky Orienteering Events For members who want to gather and do some relaxed observing at Babler State Park (BSP) or at the Jefferson College Observatory (JCO) Please RSVP if you plan to come!

SLSC Public Telescope Viewing Events: These events are held the first Friday of the month Planetarium shows start at 7pm

Dobsonfest - Sept 14 hosted by Riverbend

Pattonville Observatory Public Viewing Dates 2022-2023: 3/29, 4/12, 4/26, 5/3, 5/10

Broemmelsiek Astronomy Park Public Viewing Every Friday

UMSL Observatory
For directions and map http://www.umsl.edu/~physics/About%20the%20Department/astro.html All sessions include viewing of 1st quarter Moon with additional objects Skywatch Hotline: 314-516-5706
Saturdays:

LET US KNOW YOU ARE COMING!

To RSVP for any of these events log in to the Night Sky Network and submit your RSVP. If the event is canceled, you will be notified immediately according to the preferences you have selected.

SLAS Events

March

14 Thur	Eclipse Best Practices Riverside
14 Thur	Eclipse and Moon
15 Fri	Blessed Sacrament Star Party
15 Fri	SLAS Regular Meeting
16 Sat	Aim for the Stars at JCO
17 Sun	SLSC Solar Sunday
19 Tue	Scott AFB Eclipse Talk
22 Fri	Stacy Park
23 Sat	Gateway Arch Eclipse Program
23 Sat	Mastodon Fair
24 Sun	SLSC Solar Sunday
26 Tue	Belleville Aging Eclipse
27 Wed	Eclipse Education Program
28 Thur	Solar Eclipse Education program
28 Thur	SLAS New Member Zoom
30 Sat	Let's Talk About Space
31 Sun	SLSC Solar Sunday

April

2 Tue	Pre-Clipse
3 Wed	Eclipse Education Red Bud
4 Thur	SLAS Board Meeting
5 Fri	Solar Eclipse Education program
5 Fri	SLSC First Friday
6 Sat	SLAS Dark Sky at Danville
8 Mon	Total Solar Eclipse
8 Mon	SLAS Eclipse Viewing Jackson, MO
13 Sat	Tower Grove
14 Sun	Stacy Park
16 Tue	Manchester Park
17 Wed	Francis Park
18 Thur	Stargazing at the Gateway Arch
19 Fri	SLAS Regular Meeting
20 Sat	Aim for the Stars at JCO
25 Thur	SLAS New Member Zoom

May

2 Thur	SLAS Board Meeting
4 Sat	SLAS Dark Sky at Danville
11 Sat	Stargazing at the Arch
15 Wed	Francis Park
16 Thur	Stacy Park
17 Fri	Crestwood Park
17 Fri	SLAS Regular Meeting
18 Sat	Tower Grove Stargazing
18 Sat	Aim For the Stars at JCO
23 Thur	SLAS New Member Zoom

SLAS Merchandise Available

SLAS merchandise is now set up for embroidery at **Headz n Threadz at www.headznthreadz.com**

There is now only one location:
1065 Regency Parkway, St. Charles MO 63303
Telephone: 314.528-8100
sales@headznthreadz.com
Simply take the garment, hat, etc you wish to have embroidered and they will take care of it. They have the SLAS logo on file. You may make modifications to the colors if you wish.
SLAS Logo is also available at www.Infini-tees.com

SLAS MEMBERSHIP APPLICATION

Name: Last _____

First, Middle Initial _____

Address _____

City, State, Zip Code _____

email address _____

Please send completed form with check (no cash please) made payable to

St Louis Astronomical Society

Don Ficken, Membership
13024 Barrett Crossing CT
St. Louis, MO 63122

Youth @ $10.00 / 1 year (18 yrs or younger) $_____

Individual @ $25.00 / 1 year $_____

Family @ $40.00/1 year $_____

Publications with discount available with your SLAS membership:

Sky and Telescope @ $45.75 / 1 year $_____

(S&T may also be renewed at their website: http://www.skyandtelescope.com)

Astronomy @ $34.00 / 1 year $_____

TOTAL ENCLOSED **$_____**

Check all that apply:

___ Renewal
___ Address Change Only
___ Please send my newsletter by regular mail
___ ***New Member!***

SLAS OFFICERS

President ***Jim Small*** 314-307-0692
president at slasonline.org

Vice President ***Bradley R Waller*** 314-481-7250
vicepresident at slasonline.org

Secretary ***Mark Jones*** 636-394-2342
secretary at slasonline.org

Treasurer ***Bill Winningham, (Don Ficken - membership)***
treasurer at slasonline.org 636-357-2763

Hospitality ***Larry Campbell*** 636-244-2867
hospitality at slasonline.org

Board Members at Large

Brent Buch 314-239-0329
board24 at slasonline.org

Randy Harrison 618-267-1659
board25 at slasonline.org

Dennis Latinette 314-713-9258
Board26 at slasonline.org

ALCOR ***Bill Winningham*** 636-357-2763
(Astronomical League Correspondent)
treasurer at slasonline.org

MSRAL Rep. ***Peggy Walker*** 918-640-0832
msral_rep at astroleague.org

COMMITTEE CHAIRS

Dark Site Coordinator ***Mark Jones*** 636-394-2342
darksite at slasonline.org

Librarian ***Jim Small*** 314-909-7211
librarian at slasonline.org

Library Telescope Program ***Don Ficken*** 636-851-9630
librarytelescope at slasonline.org

Loaner Equipment ***Greg Gaines*** 314-277-3082
loaner at slasonine.org

Merchandise ***Vacant***
merchandise at slasonline.org

Membership ***Don Ficken*** 636-225-0269
membership at slasonline.org

Newsletter Editor ***Jim Small*** 314-909-7211
newsletter at slasonline.org

Observing Programs ***Mark Jones*** 636-394-2342
observing at slasonline.org

Publicity ***Rich Heuermann*** 314-962-9231
publicity at slasonline.org

Recognition ***Larry Campbell*** 636-244-2867
recognition at slasonline.org

Social Media *Vacant*

'SLASdialogs' Moderator ***Mark Jones***
dialogsmoderator at yahoo.com

Star Party Coordinator ***Bill Breeden*** 314-276-3613
starparty at slasonline.org

Telescope Making ***Bill Davis, Jim Melka*** 314-469-3061
telescope at slasonline.org

Webmaster ***Jim Small*** 314-909-7211
webmaster at slasonline.org

Devoted to the Interest and Advancement of the Science of Astronomy

ST. LOUIS ASTRONOMICAL SOCIETY

We're on the Web!
http://www.slasonline.org

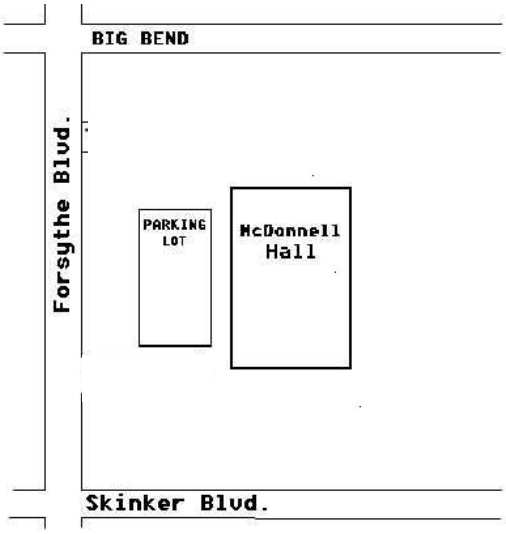
Follow us on
Twitter: @stlastro
Facebook: @stlastro

Who We Are and What We Do

St. Louis Astronomical Society is a not-for-profit organization established in 1936. SLAS is devoted to the interest and advancement of the science of astronomy. Our mission is to promote an understanding of the science of astronomy to our members and to the public. Membership is open to any-one with an interest in astronomy.

For more information contact any SLAS officer or visit our website listed above. SLAS is affiliated with the Astronomical League, Night Sky Network and the Mid-States Region of the Astronomical League.

Meetings are held the 3rd Friday of each month at McDonnell Hall at Washington University. See the map to the right for directions.



St. Louis Astronomical Society
Jim Small
13128 Cozyhill Drive
St. Louis, MO 63122