THE EVENT HORIZON

ST. LOUIS ASTRONOMICAL SOCIETY

Devoted to the Interest and Advancement of the Science of Astronomy

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Engineering for Mars

by

Matt Muszynski
Vehicle Systems Engineer
Jet Propulsion Laboratory

Matt Muszynski, Vehicle Systems Engineer from the Jet Propulsion Laboratory will be featured at the June meeting of the Saint Louis Astronomical Society. The meeting will begin at **7:30 PM Friday, JUNE 23** in McDonnell Hall, Room 162.

St. Louis has a long history of supporting science, exploration and education of the planet Mars. Two of St. Louis' main science institutions are Washington University and the St. Louis Science Center. Since the early 1970's Washington University's researchers have been involved in Mars science missions. For more than a decade, the St Louis Science Center has provided world-class exhibits on Mars exploration. The next exhibit begins this summer as NASA/JPL engineers will install the newest exhibit of the Mars rover Perseverance and helicopter Ingenuity. Landing in February 2021, the rover and helicopter are still exploring the Martian surface. The June 23rd meeting of the St. Louis Astronomical Society will host a presentation by Matt Muszynski and other NASA/JPL engineers.

Matt Muszynski is a Vehicle Systems Engineer for the JPL. He is responsible for scrutinizing the mission's design for getting data down from the rover and into the hands of the experts who interpret it. Matt first worked with NASA in 2014, when he joined the spacecraft operations team at the Laboratory for Atmospheric and Space Physics in Boulder, CO. There he worked on several spacecraft including the Kepler Space Telescope, whose primary objective was to discover planets around other stars! In 2018, Matt joined JPL and started working on Curiosity and Mars 2020!

On June 24th there will be a panel discussion by the Perseverance Rover team, at the St. Louis Science Center with scientists Ray Arvidson and Maddie Hughes from Washington University and the engineers from NASA/JPL. Tickets for this event will be available from the St. Louis Science Center.

Upcoming meetings:
July: Linda Shore, ASP
August: JWST panel panelists TBA
September: Eclipses TBA
October: Brian Kloppenborg, AAVSO
November: TBA
December: TBA

June Meeting MOVED to June 23rd

Meeting will be In Person and on Zoom

The June meeting features some JPL engineers who are visiting the SLSC during the last weekend, so we moved the meeting to accommodate that opportunity. The meeting will still be at Washington University in the usual place.

The SLAS meeting for June will be in-person and via Zoom. The Zoom room will be open from 7-10 pm. Meeting starts at 7:30 pm. **To join Zoom Meeting for SLAS Regular Meeting with computer or smartphone: Just click the link: https://zoom.us/j/8604505790**
Meeting ID: 860 450 5790

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President's Corner
by Jim Small

It's been a good month! First, the RASC GA meeting via zoom. 3 days of good talks! I'll get a couple of speakers out of that one! Next, a workshop on how to utilize small telescopes (like our observatory) for useful science in cooperation with the large telescopes. Then 4 days of the AAS meeting! Everything you could possibly imagine in astronomy. All virutual, TONS of good info. Already booked two speakers from the meeting to speak to our group, including the new head of the AAVSO. Looking forward to sharing!

Then right after the AAS meeting, I went to Tulsa to participate in MSRAL, sponsored by the Tulsa Astronomical Society. Good meeting. Great company. Plenty of good talks and, of course, door prizes! Visited their observatory Friday night. Of course it was mostly cloudy, but it was a good visit. I wish we had a nice classroom like they have for their observatory. Maybe in the future… There will be more about the MSRAL meeting in the next newsletter, Next years meeting will be in Omaha.

We moved the meeting date this month to accommodate a talk by engineers from JPL who are here with a SLSC program about Perseverance and Ingenuity. They will talk to us about how that program was developed.

See you at the meeting!

NEXT FRIDAY (23rd)

SLAS Memberships Expiring in June

Marian	Bleeke
Ethel	Foster
Marvin I.	Fridley
Nicholas	Gebben
Scott	George
Thomas	Grieb
Mark S.	Jones
Charles	Laughton
Richard K.	Myhra
Keith	Pendleton
Shanna	Ramirez
Gregory Rigelman & Family	
Rodney R.	Rynearson

SLAS Memberships Expiring in July

Michael	Cobb
Cynthia	Cripe
Cook	Feldman
Alan	Jeude
Grant	Martin
Theresa	Padua
Joseph	Pini
James & Yvonne	Roe
Thomas R.	Schloemann
Barbara	Shrauner
Ronald	Sides
John	Simmons
John	Strebeck
Jim & Ann	Trull
Stephanie	Tucker
James	Twellman

New Donation

SLAS received another telescope donation. This time an early 1980's Coulter 8" Dob. It has a f/4.5 focal ratio so very compact. I have never seen a "blue" version of this scope, only the "red" tube ones. Here is a photo next to a 4.5" Orion Starblast. It has a serviceable 1 1/4" focuser.

We are debating whether to keep it for our loaner scope program or selling it.

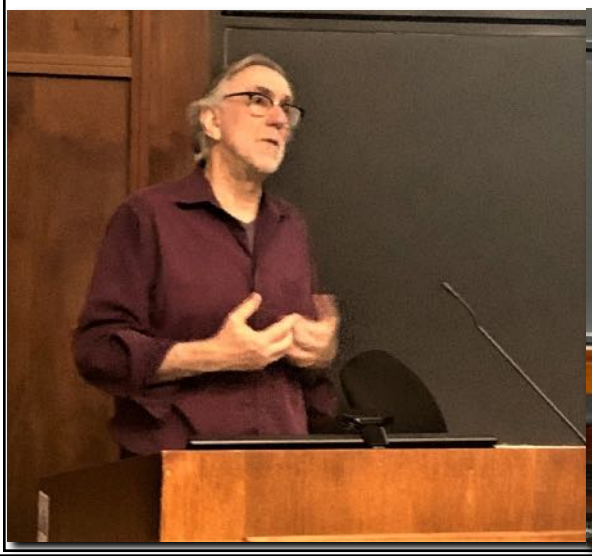
Any thoughts?

SLAS Special Awards Nominations for 2023 are Open

The annual SLAS Special Awards nominations are open for 2023. There are five awards to be presented as follows:
The Albert M. Obrecht, Founders Award
The Lois D. Fitter Outreach Award
The Richard D. Schwartz Supportive Faculty Award
The Robert E. Cox Popular Astronomy Award
The Alfred L. Woods Mentoring Award

The Obrecht, Fitter and Woods awards must be SLAS members, the Schwartz and Cox awards are not restricted to SLAS. For the full form to nominate, including definitions of awards, see this link: **https://www.slasonline.org/files/award/SLASAwardNominationForm.doc** The deadline for nominations is Sep 1st The completed form should be attached to an email and sent to awards@slasonline.org with the subject line Award Nomination Form Submission. Committee members are Chairman – Larry Campbell, Sharon Bertram, Bill Biermann, Richard Heuermann, Mark Jones, Joe Marcus, Grant Martin, Fred Schovanez, Jim Small, and Bill Neubert

Thank you to Dr William McKinnon for his talk of "At the Pad: New Missions to Jupiter's Moons", at the May 19th SLAS meeting. SLAS had 30 people in attendance and another 34 virtual on Zoom



Dobsonfest

The St Louis area astronomy clubs will be celebrating John Dobson's birthday on Saturday, September 16, 2023 at Broemmelsiek Park in St Charles County. John Dobson taught how to make inexpensive large telescopes, accessible to everyone. Would you like help using or setting up your telescope? This will be a free event. Activities will include:
Astronomy-related doorprizes will be drawn-
Solar viewing during the day
Activities for the kids like, making your our Planispheres; personalizing your eclipse glasses

- How to select a first telescope
- Library telescopes and binoculars
- Demonstrations on setting up your telescope
- Display of telescope accessories
- Telescope making and mirror grinding
- Solar viewer for solar eclipse - demo how eclipse work
- Night time demo on using your dobsonian

Perseids Over Babler

Saturday, August 12

8:30pm - Midnight

Dr. Edmund A. Babler Memorial State Park
Wildwood, MO

Come out to the monument field at Babler, where members of the St. Louis Astronomical Society will have telescopes set up to offer visitors a view of the night sky. Telescopes will be pointed at a variety of objects, and we hope to see some shooting stars from the Perseid meteor shower after it gets dark.

Everyone is encouraged to bring warm clothes, closed-toe shoes, insect repellent, chairs, blankets, binoculars and red flashlights. Parking will be available at the visitor center parking lot and across the road next to the mailboxes, behind the statue, and along the road.

Sunset will be around 8 p.m., and it should be dark by 8:45 p.m.

Event Time: 8:30 p.m. - midnight

Northern Lights Down South!
by
Mark Jones

On Sunday April 23rd, I went to Whiteside Conservation Area. The reason was to look for aurora borealis predicted for North America that evening. Earlier in the day, Europe had observed aurora in Germany and Poland. The strong solar activity with a KP index of 8 was forecasted to continue. It was hoped we would have a repeat of the aurora seen on March 22nd, unfortunately it was cloudy in St Louis. I arrive at Whiteside about 10pm, sooner after Dan Graham, Don Ladwig, Tan Nguyen, Frank Kuszaj and others arrived.

I brought two Canon DSLRs and tripods, along with shutter cables and extra batteries. I mainly used the 18-55mm lens to get a wide field. For the Canon T3 I shot a ISO6400, and ISO12800 with the Canon T5i. Most exposures were 8-10 seconds long. Both cameras captured aurora well, but the Canon T5i with extended red sensitivity seemed to captured the red rays.

The aurora was great on camera, much less impressive visually. With the camera, aurora seemed to extend as far west as Capella and east to Deneb. At its brightest one ray extended from the northern horizon up thru the bowl of the Little Dipper almost to the Big Dipper. Wide angle image Big Dipper at top North Star near bottom red ray stretched from horizon to Big Dipper. The cameras captured red rays and striated curtains, also some green arcs, and even some blue rays.

The aurora was faint to naked eye I would say much dimmer than Milky Way. However, at the northern horizon the aurora was bright enough that it looked like bright light pollution had creeped in. Very slight hint of color mainly in the yellow areas. Red streaks looked very slight red but if you did not have photo you probably would not notice color. I could not see movement but one of the guys up there had a night vision device and could watch the curtains dance.

Photo 2 - Camera looking NNE, Deneb low by tree line, Vega far right of center. Red rays of aurora

Photo 3 – Camera looking North. Red curtains, yellow arcs.

Photo 1 – Camera looking NNE, Deneb low by tree line, Vega just right of center. Red aurora with some blue rays.

Photo 4 – Camera looking North. Red curtains, yellow arcs had grown to extend further west.

continued on page 5

Photo 5 - Camera looking NNW. Moon is just at left edge of photo. Capella is bright star just left of center. Red curtains, yellow arcs.

1

2

Mars passes thru Beehive Cluster - Mark Jones

Form May 31st to June 3rd, Mars passed through the Beehive Cluster (M44). This event was in the western sky right after sunset. A stretch of clear skies made it possible to view Mars and M44 together with binoculars or telescope. Here are some photos taken over the 4-day passage. The photos below were taken with a Canon DSLR with a 300mm telephoto lens

1. Below right of Beehive Cluster
2. Right of Beehive Cluster
3. Above Center in Beehive Cluster
4. Above Beehive Cluster

3

4

Jefferson College Observatory

Saturday, 5/20

Saturday (5/20) at JCO, skies were cloudless but hazy, probably from Canadian smoke over Missouri. Humidity not too bad but there was dew on the telescopes. Could see stars down to 3-4 magnitude. It was nice to see SLAS members on the observing patio. Bill and Rita Breeden, Buzz McCullough, Greg Rigelman and Renee Mettle. We set up the 2 SLAS 10" telescopes and the observatory 16". Bill observed double stars and carbon stars with his telescope. I took some photos with the 80mm scope mounted to the 16" including M44, M81 & M82, M97 and M108, M3, and M104.

SLAS has two 10" SCT telescopes stored at JCO. These are on telescope dollies and can be rolled down the recently built ramp. SLAS members are welcome to come down and use these scopes for observing or photography, when JCO is open or contact Mark Jones to set up special times.

SLAS members using their telescopes on the observing patio at JCO

Below: Photo of M81 and M82 taken through the 80mm refractor mounted to the 16" telescope. Photo below is a single exposure 13 seconds.

Supernova 2023ixf imaged in M101

A bright (11th magnitude) supernova was discovered in the galaxy M101. M101 is located off the handle of the Big Dipper and is almost overhead this time of year. A couple of SLAS members took this opportunity to photograph the Supernova. Thank you to members for providing these photos.

As of June 5, Supernova 2023ixf remains about 11th magnitude. Members are encouraged to look for it with telescopes of 8" or larger. https://www.rochesterastronomy.org/sn2023/sn2023ixf.html?fbclid=IwAR0rpBVWJUMSNOEfgttFOR6KIuQNw_ALOb93EHH-U5ATF6utiKo5qi4VauU

Jesus A Ponce de Leon took this one on May 23 with a 127 mm triplet fcd refractor.

Randy Harrison took this image May 23 using 100 mm Esprit Telescope. He visually viewed it with a pair of hundred millimeter binoculars 101 is fuzzy but you could see the nova blinking in and out.

Kumar Challa took this photo on May 23

St. Louis Astronomical Society
Devoted to the Interest and Advancement of the Science of Astronomy
Executive Board Meeting Minutes 5/4/2023

1. Opening Activities: May the 4th be with you a. Attendance: Jim Small, Dennis Lattinette, CV Navin, Mark Jones, Randy Harrison. Brent Buch, Larry Campbell, Brad Waller, Jeremiah Taylor, Bill Winingham b. Open Meeting; Meeting opened at 7:05pm c. Approval of last month's meeting minutes. Motion to approve the minutes by Brad second by Brent, minutes approved. d. Next Board meeting date: June 1, July 6, Aug 3, Sep 7, Oct 5, Nov 2, Dec 7 Meetings will be via Zoom until further notice: For table: Library Telescope, Banner, brochures, etc. Setup at 6pm, get sign from back room. SLSC Will Snyder SLSC Update National Astronomy days – April 29 and October 9. First Friday at SLSC (telescope viewing and indoor programming) - May 5, June 2, August 4, September 1, October 7, November 3, December 1. Solar Viewing SLSC - June 4, 11, 18, 25; July 2, 9, 16, 23, 30; August 6, 13, 20, 27; September 3 Working on SLSC hosting June meeting with JPL team presenting. The weekend of June 23rd is the opening weekend for the full-sized Perseverance rover and Ingenuity helicopter models that will be on loan at the Planetarium. That week, we will have engineers from JPL and science-team members from Wash U on-site to give several public talks. The models will continue to be on display at the Planetarium for approximately a year (longer than any other host site). NASA/JPL is still finalizing what engineers are flying out and who will be here which days. It would be great to have this as a SLAS meeting, easier for us to organize and promote. I think we can wait a bit longer to announce a change in venue and date. Do you think you could nail down the date, time, topic for meeting by May 19th or June 1st? We can discuss it at our May 4 Board meeting Working on SLSC hosting a one-year Anniversary review of JWST coinciding with NASA new results release for the Aug 18th meeting. (1) order new JWST materials by May 8th deadline. New posters are supposed to be included. (2) commit to Aug 18th date by June1st, SLAS Board meeting. (3) Decide if jointly hosted by SLAS and SLSC. (4) commit to venue as planetarium by June 5th or we will default to Wash U. (5) Submit event to NASA calendar by June 5 deadline. (6) make final venue decision by Aug 1st.

2. Upcoming General Membership meeting topics: a. **Speaker**: William McKinnon, 10th time going back to 1984 b. Special Awards needed: no c. Speaker Press Release: draft release sent Rich Heuermann d. Special Business – Nominations and Elections, MSRAL, AAS e. A101 – **Standing Action: Jim to display list of expiring memberships at start of Monthly General Meeting**

Resource for speakers dated Feb 27 -Greetings from the NASA Museum & Informal Education AllianceWe'll go ahead and use Jim's address, then! About what is possible, the Alliance is here for you to provide any sort of educational resources, assistance, and support that we can. Whether you need media or printables for your events, or you're interested in what kind of NASA speakers are out there for your monthly meetings, the Alliance is a general purpose service for any sort of educator. For example, I'm hoping you noticed the exoplanet watch talks that happened this month. We help educators from all over with everything from simple science questions about NASA topics all the way through co-developing curriculum and content for your audiences. So just let us know how you think we could help, and we're happy to explore options. The Night Sky Network did one as well, and that might be of great interest to your Library Telescope program: https://exoplanets.nasa.gov/exoplanet-watch/about-exoplanet-watch/overview/ f. **Hospitality:** a. Budget – 2023 Budget $XXX **Action: Larry Campbell. If we have special June and August meetings at SLSC then we will need special cakes for JPL and JWST themes**

3. SLAS Financial Report a. Balance Sheet:b. Profit/Loss report: c. Annual Budget meetings: d. Corporate filings: not due until May **Action: Bill will adjust depreciation of scope and dome based on proportion of replacement cost** 2023 Form 990 has been filed for SLAS Insurance policy renewed effectives May 8th. Increase in property coverage from $20K to $30K **Action: Bill W. will send copy of insurance policy to Jim and Mark**

4. Speaker Committee a. Budget – 2023 Budget $400 b. Upcoming speakers: **SLAS Monthly Meeting Presentations 2022-2023**

Month	Name	Topic	Sponsor
May-19-2023	William McKinnon	Missions to Jupiter's Moons	Washington U.
Jun-16-2023	JPL Engineers	Perservence and Inginuity	SLSC
21-Jul-2023	TBA		
18-Aug-2023	Panel	JWST 1st Anniversary Results	SLAS, SLSC
15-Sep-2023	TBA		Oct 14th Solar Eclipse
20-Oct-2023	TBA		
17-Nov-2023	TBA		
15-Dec-2023	TBA		

d. Topics of interest e. Stipends f. Travel **Action: Brad to ship mug to Stephen Hummel, still in work. UPS was expensive. Brad will send USPS Action: Brad to submit invoices for Stephen Hummel postage. Action: Brad to submit expense form for $100 honorarium to Harry Krantz and include mailing address Action: Send mugs to other speakers. Haojing Yan, Alan Dyer, Nathalie Nguyen-Quoc Ouellette PhD, Laurie and Kimberly Sibbald, Brett McGuire Action: Mark to target Peggy Hill about 2023 & 2024 eclipses for talk at SLAS meeting in September Action: Jim to contact Anita Dey about speaker for JWST 1-year Anniversary meeting. Maybe see if meeting could be held at Planetarium. Action: Randy to contact Gautham Narayan from Univ of Illinois 4-meter telescope in Chile. Action: Jim Small to contact this group after the RAS and AAS meeting.** Resource for speakers dated Feb 27 -Greetings from the NASA Museum & Informal Education Alliance. We'll go ahead and use Jim's address, then! About what is possible, the Alliance is here for you to provide any sort of educational resources, assistance, and support that we can. Whether you need media or printables for your events, or you're interested in what kind of NASA speakers are out there for your monthly meetings, the Alliance is a general purpose service for any sort of educator. For example, I'm hoping you noticed the exoplanet watch talks that happened this month. We help educators from all over with everything from simple science questions about NASA topics all the way through co-developing curriculum and content for your audiences. So just let us know how you think we could help, and we're happy to explore options. The Night Sky Network did one as well, and that might be of great interest to your Library Telescope program: **https://exoplanets.nasa.gov/exoplanet-watch/about-exoplanet-watch/overview/**

5. Membership Initiatives a. Budget – 2023 Budget $600 b. Welcome Aboard Meetings – c. Raffles – d. Attendance prizes – Send suggestions for Brad

6. Membership Recognition a. Total Budget 2023 Budget $500 b. NSN Outreach Awards: c. Membership Report: The SLAS membership report for April 2023 shows 240 members which is a decline of two members over last year at this same time. Expirations are trending upward and many are converting from family to individual memberships. **Standing Action: Bill to provide list of expiring memberships to SLAS Board and Jim for newsletter** d. Member anniversary – e. Special Award program - **Action: Jim to add permanent box to newsletter with dates for awards as a reminder to members** 1. Special Award Committee report: Chairman – 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: 5. Awards presented at December meeting **Action: Jim to add Rich Heuermann and Joe Marcus to recognition@slasonline.org distribution list**

7. Outreach - a. Budget – 2023 Budget $500 b. Member Training Program Status: c. Purchase of T-shirts for volunteers completed training d. Purchase of lawn signs: e. Upcoming outreach events: needs to be performed relating to indoor programming for First Friday at the SLSC and planning for Stem programs and at least 1 astronomy day event Gateway Arch events start May 26. New flyer published by NPS Francis Park - May 24, June 21, July 26, Aug 23, Sep 20, and Oct 18 Tower Grove Park - May 27, June 24, July 19,

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(Continued from page 7)

Sep 30, Oct 21. Special Event - Astronomy Festival Sep 30, 2-5pm JCO – May 7; June 4, July 2, Aug 6, Sep 3, Oct 1, Nov 5, Dec 2. Special eclipse event Oct 14 Dobsonfest 2023 hosted by ASEM f. Awards/recognitions – g. NSN Outreach hours YTD: NSN volunteer hours for all **St. Louis Astronomical Society** club members from January 1, 2023 to May 4, 2023. **Total hours reported:** 251.1 hours **Total volunteer hours reported:** 2023: 255.6 hours; 2022: 1285.4 hours

8. Old Business: Action: Mark purchase Eclipse Expo table and sponsorship for expo. Table has been purchased still working on sponsorship Action: Mark to procure HDMI RFI transmitter/ receiver to use at planetarium and other Outreach events Action: Jim Small send in AL By-Laws ballot but disapproving Section 5. Contracts Requiring prior approval by President of AL. Second by Larry. Board approved motion.

9. New Business Action: Add eclipse glasses to new Business next month for discussion of pricing schedule Unit cost= $0.286), sales and distribution. Board will defer this to June meeting. ASEM selling to members $1 each or 50 for $35 Board agrees to sell to members and other non-profits only. Do not sell but give away glasses at outreach events. If we sold 4,365 glasses at $0.70 each. Then SLAS would break even ie sales $3,056. Therefore, we could give away 6,311 glasses.

10. Other Committee Reports: If needed

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

B. SLCL Business a. Annual contract – b. Upcoming events -

C. Jefferson College Business: a. Committee Meeting report: b. Upcoming Outreach Event: Jim ordered and received Handbox for Meade 10" LX200 for $100 from Telescope Warehouse. **Action: Mark to take new handbox install on 10" at JCO. 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.** Board decided to not pursue a quote from Explore Scientific for 16" upgrade. If we need large repair we should send scope back to Meade instead

D. Library Telescope Committee a. Budget – 2023 Budget none requested, expenses will be covered by escrow balance of $2460 b. Upcoming builds or maintenance events c. Maintenance budget – none requested d. Mileage re-imbursement – see above e. Promotional materials-none requested Next LTP build June 20, 16 scopes.

E. SLAS Social Eventsa. Budget – 2023 Budget $365, b. Homemade Fest - 2023 budget $125 c. Star-B-Q Planned for Oct 7 at Babler State Park– 2023 budget, $240 Other

F. SLAS Brochures a. Budget 2023 $600 b. Quarter cards – Possibly print new cards with JCO, Arch, Tower Grove events. Mark made samples for new quarter card using Larry Meyer JCO photo. Options for backside are St Louis Eclipses or generic SLAS member benefits. Last time we printed gateway arch cards cost $56 for 400 cards.

G. Loaner scope Program a. Budget – 2023 Budget $ 100 b. New donations: c. Replacement Parts for the LPTs d. Items for sale **several: Status for sale items** Celestron PowerSeeker 127 reflecting telescope, $50 Orbitor 4.5" Reflecting Telescope, $40 4.25-inch f/10, Reflecting Telescope, Wooden Tripod, 6x30mm finder, 1 ¼ focuser, $10 Majestic Tripod Head-only, Heavy Duty head, w/1/4x20 screw mount, Mounts to 1.5" post, crank pivots head in altitude direction, $10 Small Equatorial Mount. Manual with slow motion knobs and counterweight. Similar to Sky-Watcher EQ-2 mount, $30

H. SLAS Library a. Budget – 2023 Budget $500 b. Other – Mark has to added 2022 books to inventory list. List is stored in files on SLASDialogs.group.io

I. Merchandise 72 of the new coffee mug design were received. 36 mugs transferred to Brad Waller for Speakers . Unit cost was $6.75. The balance are available for member purchase. $10each or two for $15

J. Telescope Making

K. Newsletter a. Budget 2023 $,

L. Website - a. Budget 2023 $, **Action: Jim Small to update PayPal and website increase by $2 for all S&T options**

M. Social Networking Private FB page – 104 members New LinkedIn group for SLAS, created April 24 by CV NaNavin. Here is the link: https://www.linkedin.com/groups/14251117/ Public FB – 2,573 followers, 103 followers added in April. 71% women; 29% men. The number of people who saw any of your posts at least once during April is 7,705.

N. Night Sky Network

O. SLASdialogs SLAS Groups.io – 187 members. 77 posts so far in 2023. **Action: Mark to send notice to groups.io and private FB members to make sure their memberships are current otherwise they will be purged as of Aug 1st**

P. Dark Site

Q. Observing Programs

R. Star Parties Donation: $146 donation 3/7/2023 from Laumeier Park event

11. Closing Activities: Motion to adjourn the meeting by Brent second by Jim. Meeting adjourned at 9:37pm

20th Annual SLAS Star-B-Q
Saturday, October 7, 2023
|Alta Picnic Shelter

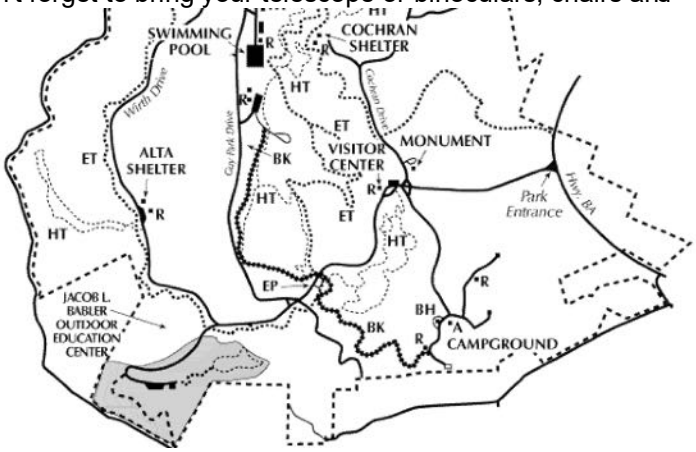
Come join fellow members of the SLAS in **Babler State Park** at the **Alta Picnic Shelter** for a day of food, games, and observing. ***This area has a large shelter, restrooms.*** SLAS will once again provide the hamburgers and hotdogs. We ask for you to bring your favorite drinks and side dish or dessert. Don't forget to bring your telescope or binoculars, chairs and bug spray!

Activities will include: ***Astronomy Trivia Quiz and prizes, solar viewing and plenty of socializing***! Then we pack up and move to the Babler Monument area where we will observe from 6:30-Midnight. Don't have a telescope? Don't worry this is a great chance to see other member's telescopes.

2pm – Picnic begins
3pm-5pm Food line open
4pm-5pm Trivia Contest (with prizes)
5pm-6pm- cleanup shelter

6:30 Sunset Move to Monument Area
6:30pm-midnight- Observing at Monument Area

Special Note: There will be solar viewing during the day



St. Louis Astronomical Society
Profit & Loss Budget vs. Actual
January through May 2023

	Jan - May 23	Budget	$ Over Bud...
Ordinary Income/Expense			
Income			
Events Income	250.00		250.00
Magazine Subscription	1,188.40	1,364.95	(176.55)
Membership Dues	2,105.00	2,350.00	(245.00)
Total Income	3,543.40	3,714.95	(171.55)
Cost of Goods Sold			
Magazine Subscriptions	1,257.22	1,381.90	(124.68)
Merchandise	242.92	300.00	(57.08)
Total COGS	1,500.14	1,681.90	(181.76)
Gross Profit	2,043.26	2,033.05	10.21
Expense			
1-Programs & Events	1,143.41	1,105.30	38.11
2-Newsletter	380.62	250.00	130.62
5-Loaner Scopes	880.95	50.00	830.95
6-Brochures		150.00	(150.00)
7-Insurance	1,163.09	1,050.00	113.09
8-Website	325.28	500.00	(174.72)
9-Administrative Expenses	1,487.99	1,614.50	(126.51)
Jefferson College Observat...		5,000.00	(5,000.00)
Total Expense	5,381.34	9,719.80	(4,338.46)
Net Ordinary Income	(3,338.08)	(7,686.75)	4,348.67
Other Income/Expense			
Other Income			
Donations	521.52		521.52
Interest Income	5.87	20.00	(14.13)
LTP Receipts	2,597.03		2,597.03
Total Other Income	3,124.42	20.00	3,104.42
Other Expense			
Eclipse Escrow Dispursements	50.00		
LTP Disbursements	3,182.97		3,182.97
Total Other Expense	3,232.97		3,232.97
Net Other Income	(108.55)	20.00	(128.55)
Net Income	(3,446.63)	(7,666.75)	4,220.12

St. Louis Astronomical Society
Balance Sheet
As of May 31, 2023

	Dec 31, 22	May 31, 23
ASSETS		
Current Assets		
Checking/Savings		
Checking - First Bank	16,660.91	11,492.74
Deposit, Certificate of	15,976.91	15,981.75
Library Telescope Escrow	2,459.77	1,833.75
PayPal	494.39	636.87
Savings - First Bank	41,153.95	41,454.98
SLAS Eclipse Conference Escr...	0.00	3,394.76
Total Checking/Savings	76,745.93	74,794.85
Other Current Assets		
Inventory Asset	675.61	918.25
Undeposited Funds	375.00	263.95
Total Other Current Assets	1,050.61	1,182.20
Total Current Assets	77,796.54	75,977.05
Fixed Assets	12,460.24	11,075.74
TOTAL ASSETS	90,256.78	87,052.79
LIABILITIES & EQUITY		
Equity		
Opening Bal Equity	8,497.66	8,740.30
Retained Earnings	75,243.71	81,759.12
Net Income	6,515.41	(3,446.63)
Total Equity	90,256.78	87,052.79
TOTAL LIABILITIES & EQUITY	90,256.78	87,052.79

We could use articles for the newsletter. The following topics are fine for submission.

1. Star party reports. Let us know how a star party you attended went! Photos would be most welcome in addition to the article.

2. Observing reports. Actually made it out observing? Let us know how it went. Taken some astrophotos? Please submit!

3. Bought something or built something? How about a review or an article!

Send an editable document or images to newsletter@slasonline.org
Please provide captions if sending images.

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 for 2023: 7/6, 8/3, 9/7, 10/5, 11/2, 12/7

SLAS Dark Sky Observing Dates

Francis Park Events: These events are on Wednesdays of the week nearest the first quarter Moon
6/21, 7/26, 8/23, 9/20, 1018

Aim for the Stars Public events held on 1st Sundays at the Jefferson College Observatory and Patio.
7/2, 8/6, 9/3, 10/1, 11/5, 12/2

Stargazing at the Arch Events for the public held at the Gateway Arch
6/23, 7/28, 8/25, 9/22, 10/27,

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

Pattonville Observatory Public Viewing Dates 2022-2023: See you in August!

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

June

16 Fri	NO SLAS MEETING TONIGHT!!
17 Sat	SLAS Dark Sky at Danville
17 Sat	Jefferson College Observing
18 Sun	SLSC Solar Public
21 Wed	Francis Park Stargazing
22 Thur	SLAS New Member Zoom
23 Fri	SLAS Regular Meeting
23 Fri	Stargazing at the Gateway Arch
24 Sat	Boeing STEAM and Space Day
24 Sat	Tower Grove Stargazing
24 Sat	Des Peres Park
25 Sun	SLSC Solar Public
27 Tue	Moonlight Madness
28 Wed	Jamestown Bluffs
29 Thur	Weber Road Library
29 Thur	Stacy Park Stargazing
30 Fri	Morrison—Talbott

July

2 Sun	SLSC Solar Public Telescope
2 Sun	Aim For the Stars
6 Thur	SLAS Board Meeting
9 Sun	SLSC Solar Public Telescope
15 Sat	SLAS Dark Sky at Danville
15 Sat	Jefferson College Observing
16 Sun	SLSC Solar Public Telescope
21 Fri	Missouri Solar Eclipse Expo
21 Fri	SLAS Regular Meeting
22 Sat	Missouri Solar Eclipse Expo
23 Sun	SLSC Solar Public Telescope
25 Tue	Meramec Valley Library
26 Wed	Francis Park Stargazing
27 Thur	SLAS New Member Zoom
28 Fri	Stargazing at the Arch
29 Sat	Tower Grove Stargazing
30 Sun	SLSC Solar Public Telescope

For other events, watch the calendar on the website. Virtual stargazing events and other online activities will be registered there. We hope you can join us for some of these activities!

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

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president at slasonline.org

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

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secretary at slasonline.org

Treasurer ***Bill Winningham, (Don Ficken - membership)***
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Hospitality ***Larry Campbell*** 636-244-2867
hospitality at slasonline.org

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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

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dialogsmoderator at yahoo.com

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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

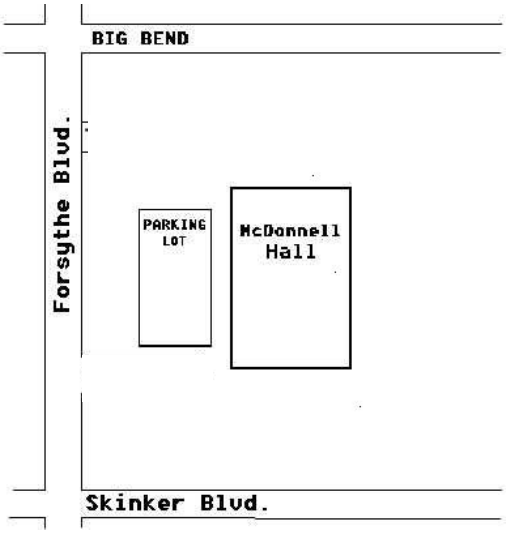
Follow us on
Twitter: @stlastro
Facebook: @stlastro

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
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