

# THE EVENT HORIZON



## ST. LOUIS ASTRONOMICAL SOCIETY

*Devoted to the Interest and Advancement of the Science of Astronomy*

**VOLUME 28, Issue 12  
December, 2018**

### **The Science of Star Wars by Dr. Pamela Gay Astronomical Society of the Pacific**

Dr. Pamela Gay of The Astronomical Society of the Pacific will be featured at the December meeting of the St. Louis Astronomical Society. The meeting will begin at 7:30 PM Friday, December 21, in McDonnell Hall, Room 162, on the Washington University campus, Saint Louis, MO 63105. McDonnell Hall is accessible from Forsyth Boulevard via Tolman Way.

Long, long ago in a galaxy far, far away – matter and energy interacted in an earlier universe that followed the same laws of physics, chemistry, and biology that govern the universe today. The Star Wars plot lines and devices sometimes followed those laws – and sometimes they did not. Dr. Gay will talk about the science of Star Wars – what is possible and what is not. (Spoiler Alert: The Millennium Falcon did not make the Kessel Run in a time of twelve parsecs. A parsec is a unit of distance, not time.)

Dr. Pamela Gay is an astronomer, writer, and podcaster focused on using new media to engage people in science and technology. She is the Director of Technology and Citi-

zen Science for the Astronomical Society of the Pacific, co-host of the Astronomy Cast podcast, and a member of the team that is building the CosmoQuest virtual research facility. CosmoQuest is a citizen science web site designed to provide the public with opportunities to participate in NASA related science programs, online seminars, and other astronomy events and activities.

#### **Presentations for 2019**

**Jan** Erika Gibb, PhD Comets UMSL

**Feb** K Michael Malolepszy The Year in Planetary Exploration SLAS

**March** Bruce Stinchcomb, PhD  
Meteorites Flo-Valley

**April** Bob King "Astro Bob" (1)

**May** Craig O'Mara Flying SOFIA NASA

**June** Josiah Lewis, PhD

Presolar Grains: Solids from Other Stars Wash U

**July** Ryan Clegg-Watkins, PhD

Exploring the Moon from Orbit Wash U

**August** Angela Speck, PhD

2019 Solar Eclipse Results University of Missouri

**September** Don Hampton, PhD

Aurora Borealis & Steve (1) UAF

**October** Claire Chandler, PhD Super-Earths

and the Formation of the Solar System NRAO

**December** Duncan Lorimer, PhD

Fast Radio Bursts: "Lorimer Bursts" (1) UWVA

(1) Skype event UAF: University of Alaska:

Fairbanks UWVA: University of West Virginia

### Mid States Region



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## **Mark Your Calendars Now!**

### **Homemade Fest**

**Saturday, February 16**

**5-10 pm**

**Kirkwood Community Center**

**Kirkwood Park**

**See Brad Waller if you wish to make a presentation!**

## **Still Holiday Shopping?**

**Bring Cash, Check or Credit Card to the SLAS Meeting!**

**We Will Have Infini-tees Shirts for Sale for \$15!**

**SLAS mugs are \$10**

**We are Also Selling Telescopes and Eyepieces for the YMCA (see next page)**

**We Also Have Eyepiece Sets for Sale!**

**Presidents Corner by Jim Small**

Be sure to check your volunteer hours on Night Sky Network and get them properly recorded. See the article later in the newsletter for your current status.

For the meeting, a number of telescopes and eyepieces are being sold to support the YMCA Trout Lodge program. If you are interested, bring cash, check or a credit card and we'll take care of things for you!

Do your Holiday Shopping with us!!!! We will have Infinity-shirts for sale (Moon, Pleiades, Globular Cluster, Orion, and Dobson shirts, various sizes). The price has been reduced to \$15 for these shirts! We also still have SLAS Eclipse Mugs for sale for \$10 each. In addition, we will be selling off eyepiece kits and eyepiece holders that can be mounted on the side of a dobsonian base. See Don Ficken for purchase.

The budget is enclosed in this newsletter. It was approved at the November board meeting and this is the official presentation for the members. If you have any questions,

even if you aren't at the meeting, don't hesitate to contact Bill Winningham or whomever is in charge of the area in question if you want clarification. The membership will vote on it at the December meeting.

Homemade Fest is booked last week for February 16th, the day after our February meeting! We look forward to learning about new items and ideas you might have about astronomy. Think about making a presentation of any aspect of astronomy you are interested in. It could be a new software package or app you are using, piece of equipment you bought or designed.... we would like to hear about it!

We are still working on the observatory to be built at Jefferson College on their campus. We have a lead on an observatory and telescope to locate at that facility and are working on negotiations for both. It will take some time to complete negotiations.

This month we will also vote on the addition of funds to pay for the table covers we purchased last summer and had funds removed from the library account. The funds will be used to restore the library account for the purchase of additional materials by the end of the year.

**YMCA TROUT LODGE – ASTRONOMY EQUIPMENT FOR SALE**

The St. Louis Astronomical Society is working with YMCA Trout Lodge in Potosi, MO to reconfigure its astronomy program to be friendlier to lodge guests and more simple for lodge staff to support. They are expanding their library telescope program to three library telescopes and getting rid of excess equipment. As a result, we will be offering a variety of telescopes and eyepieces for sale at this month's meeting at Washington University. We want SLAS members to get the first chance to obtain this equipment before we offer for the items for sale on the general market. Items will be sold "as is" on a first come, first serve basis. Bring your cash and checkbooks to buy equipment just in time for the new year!

**Celestron 8" Reflector F/6: \$250.00**

Very nice used telescope with working telrad. Mirror has been recently cleaned and collimated by SLAS. Includes Orion 17mm and Orion 6mm which are new in box and a three hole eyepiece holder that can be mounted on base.

**Celestron 8" Reflector F/6: \$50.00**

Used telescope which is a project scope. Tube is in relatively good condition but the mirror has never been silver coated and no base or finder exists. With a little TLC, this could become a great telescope.



**SLAS Volunteer Hours**

So far SLAS volunteers logged 1300 hours from Jan 1st to Nov 15th. Members with 5 or more events for 2018, can qualify for the Night Sky Network pin. Please go to NSN and make sure your volunteer hours are correct and enter any missed hours. Check NSN for future opportunities and sign up today. Thank you to all our volunteers!

Donald Ficken	69 events	196.5	hours
Bradley Waller	48 events	139	hours
Cook Feldman	47 events	168.5	hours
Mark Jones	24 events	89.5	hours
Richard Jennings	22 events	58.5	hours
Richard Fefferman	17 events	47	hours
Larry Campbell	17 events	38.5	hours
John Beary	16 events	56.5	hours
James Small	14 events	51.5	hours

Frank Mack	14 events	31.6	hours
Sharon Bertram	13 events	31	hours
Bill Breeden	12 events	42.5	hours
Rita Breeden	10 events	36.5	hours
Raymond Mueller	7 events	28.5	hours
William Neubert	6 events	33.5	hours
Shanna Ramirez	6 events	23	hours
Rich Heuermann	5 events	21	hours
Charles Laughton	5 events	18.5	hours
Ann Trull	5 events	17	hours
Jim Trull	5 events	17	hours
Kevin Koontz	5 events	13	hours
Opal Andrews	4 events	15.5	hours
Rick Menendez	4 events	10	hours
Phyllis Nolan	3 events	7.5	hours
John Duchek	3 events	5.5	hours
Alfred Schovanez	2 events	19	hours
Brent Buch	2 events	10	hours
Carl McCullough	2 events	10	hours
Robert Drzymala	2 events	9.5	hours
John Strebeck	2 events	7	hours
Alan Whitson	2 events	6.5	hours

Ramesh Babu Nagarajan	2 events	6.5	hours
William Winningham	2 events	6	hours
Maryanne Angliongto	2 events	5.5	hours
Tom Keutzer	2 events	5	hours
Eric Gustafson	1 event	8	hours
david barry	1 event	6	hours
Rebecca Schroeter	1 event	4.5	hours
Brian Mills	1 event	4	hours
Daniel Maloney	1 event	4	hours
Marc Sandberg	1 event	4	hours
Murray Fishman	1 event	3	hours
Daniel Tadrick	1 event	2.5	hours
Jo Guthmiller	1 event	2.5	hours
Louise Davison	1 event	2.5	hours
John Newcomer	1 event	2	hours
Lance Traylor	1 event	2	hours
Mark Goldenberg	1 event	2	hours
Ben Winningham	1 event	1.5	hours
Bill Biermann	1 event	1.5	hours

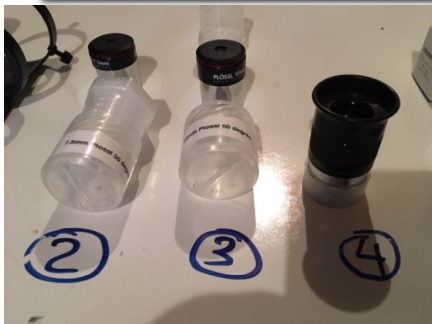
**Unbranded 6" reflector F/6.5: \$75.00**

This equatorial mount is a project scope that appears to be workable except that it does not have a secondary mirror. The primary mirror appears to be in good shape. When plugged in, the motor appears to be working. There is a small chunk out of the tube which should not cause an issue with operation and is repairable for anyone who is handy. This item has the potential to be a nice scope.



**Finders, eyepieces and barlow for sale**

1	Celestron	7 X 50 Finder Scope with bracket	50.00
2	Pro-Optic	7.5mm Plossl	10.00
3	Pro-Optic	10mm Plossl	10.00
4	Televue	20mm Plossl	75.00
5	Celestron	25mm SMA Model 93007-A	35.00
6	Celestron	25mm SMA Model 93007-A	35.00
7	Meade	26mm Super Plossl	30.00
8	Meade	40mm Series 3000 Plossl	40.00
9	Orion	2X Shorty Barlow	40.00



**Assumption Summary – 2019 St. Louis Astronomical Society Annual Budget**

Work began on the 2019 budget after the financial close for August 2018. The year to date information is therefore through August 31, 2018 with an estimated projection of activity from September 1, 2018 through December 31, 2018.

The budget information was assembled partially based on assumptions developed from the August 2018 year to date actual in areas such as membership information available at that time. The balances of the budgetary items were prepared on a line by line basis by the individual committees and committee chairpersons.

**Revenue / Income:**

The primary source of Revenue for the Society stems from membership fees that are assessed on an annual basis that is based on the member’s individual anniversary date. The current fee structure was adopted in 2004 where the “Family Membership” was created and set at an annual rate of \$40.00 per year. At the same time, the fees for the Youth membership were decreased from \$15.00 to \$10.00 per year.

The total revenue from the membership fees for 2019 is based on:

Regular (Adult) Memberships	120 @ \$25.00/year	\$3,000
Youth Memberships	9 @ \$10.00/year	90
Family Memberships	27 @ \$40.00/year	1,080

As indicated in the budget, this will provide operating revenues in the total of \$4,170 for 2019. The actual revenues that will be realized during the calendar year may be different due to any changes in the actual membership numbers.

Magazine subscriptions are referenced as a memo item. The Society acts solely as an agent in these transactions as a convenience to the membership. It should be noted that the same “Club” rates for the subscriptions are available to each member in good standing through the Night Sky Network for those who choose that option.

Albeit that the Society does receive donations for the outreach activities, these donations have been ignored for the purpose of the 2019 budget due to the uncertainty. The donations are solely for the purpose to contribute to the cash flow and offset a portion of any deficit.

**Operating Expenses:**

These are expenses that are incurred to run the Society on a month to month basis to provide goods and services to the membership. Some of the expense categories are required to meet specific obligations that enable Society to function as an organization. The balance of the expense categories are considered discretionary and may be adjusted accordingly. The items that will be discussed in detail are the discretionary items.

**Newsletter Expense:** For 2019 newsletter and brochure expense are going to be separate line items in the budget. The newsletter expense consists of \$325 for paper, toner and other supplies, and \$175 for postage.

**Events**

The Homemade Fest budget remains \$100. This budget is primarily used to purchase refreshments, plates, plastic ware and door prizes. SLAS hopes to continue getting the meeting room free of charge from the Science Center or the Kirkwood Community Center. Kirkwood waived the fee in 2018 because of our hosting telescope viewing at Kirkwood Park at least twice a year.

The Star-B-Que remains at \$200. This event will again be member pot luck with SLAS providing the meat, paper goods, and trivia quiz prizes. SLAS hopes to continue getting the picnic pavilion free of charge. This is normally an \$80 charge, but Babler has waived the fee because of our hosting Night Skies Over Babler twice a year.

The members in attendance will be asked to provide items as with the Homemade Fest to complement the main course provided by SLAS. This will require that the membership provide their RSVP and number of attendees so the event can be planned accordingly.

**Library Telescope Program:**

The SLAS Library Telescope program’s was launched into the St. Louis area on November 2014. In just a few short years, the program has grown to one of the largest and most successful programs in the country. On all fronts, the library telescope program is demonstrating success.

The LTP Committee’s focus for the upcoming year will be on the following four areas:

- \$200 – maintenance budget to cover all the little things that we need to keep the telescopes in top shape (the big things we charge to the libraries)
- \$250 to reimburse mileage for SLAS Members who travel to multiple library locations to perform maintenance or repair on the library telescopes. The rate will be the current IRS rate for charitable contributions (\$.14) (IRS.gov). The SLAS member requesting reimbursement should provide a spreadsheet log documenting their travels. This should include: dates, mileage, and locations visited. Reimbursement requests should be made quarterly.
- \$200 – funding for replenishing promotional material/handouts such as business cards
- \$300 – funding to buy some binoculars for use at library events to keep patrons engaged while standing in line and as a “test” to see which binoculars work best if we were to expand the LTP program in 2020 with binoculars for checkout. The binoculars have a number of specs that are being worked on but they should be durable, able to resolve a star reasonably well, be bigger than 35 mm for a wider field of view and something an eight year old can handle.

The Library Telescope Committee requests \$450 in operating expenses to cover items 1-2 above. In addition, the Committee requests \$500 for the Library Telescope Escrow to cover item 3-4 above. Note that parts for major repairs are considered the responsibility of the libraries and are not budgeted.

**Meeting Expense:**

Meeting expense is comprised of Meeting Refreshments and Meeting Speaker Fees. The meeting refreshments are self-explanatory and have been budgeted at \$350, same the 2018 budget level. The Meeting Speaker Fees are used primarily to present honorariums to guest speakers and occasionally to partially offset travel expenses. The speaker budget has ranged between \$250 and \$600 in recent years. The 2019 speaker budget will be \$500, which includes expected travel expenses for 2 to 3 speakers and a stipend for one graduate student speaker.

**Membership Initiatives:**

SLAS regularly holds "Welcome Aboard" meetings for new SLAS members. These meetings take place before the Monthly Meeting. New SLAS Members are given a SLAS Informational Folder containing information about SLAS resources and other related Astronomy topics.

The budget for Membership Initiatives is \$400. Membership Initiatives, as in recent years, plans to hold raffle events during 2019 as opportunities arise. Past raffles involve tickets to special speaker events such as when Neil deGrasse Tyson and Jim Lovell came to the area. Membership Initiative also intends to continue the practice of awarding attendance and other prizes to the membership. Examples of some of possible prizes for 2019 include sponsoring a membership to McDonald Observatory, telescope eyepieces, and cell phone adapters for telescopes. Please feel free to suggest your ideas for membership prizes to Brad Waller at [vicepresident@slasonline.org](mailto:vicepresident@slasonline.org).

**Membership Recognition:**

The membership recognition budget for 2019 is \$300. This will include \$100 for Night Sky Network pins and certificates. The remaining \$200 will be budgeted for recognition of members for continuous membership in SLAS and for contributing time for other SLAS functions. A membership recognition committee was formed two years ago and an email address, [recognition@slasonline.org](mailto:recognition@slasonline.org) was set up so that recommendations can be submitted to the committee.

**Merchandise:**

A budget of \$100 has been established to cover the setup fees for embroidery/silkscreen. Several local retailers are being considered based on overall price, quality, and convenience.

**Library:**

Library expenses for 2019 includes the purchasing the latest CDs available for both Sky & Telescope and Astronomy Magazine and the RASC Handbook at an estimated cost of \$100. An additional \$370 is allocated for the purchase of 3 more solar system globes (expected to be Venus, Mercury, and Galilean moon Europa) and two duffle bags for storage and transporting globes to various STEM/outreach events.

**Loaner Scope Program:**

Protective storage cases were purchased during 2018. For 2019 the budget was lowered to \$100 which is intended to cover miscellaneous repair cost. The loaner scopes are in the process of being relocated to a more accessible location.

**Outreach:**

The outreach budget for 2019 is \$650. This included \$450 for the rental of a trailer for the air show and mailing costs for borrowing exhibit items for the air show (such as the popular meteorites from the 2018 event). There is also \$200 reserved to support a potential 50<sup>th</sup> anniversary of Apollo 11 event.

**SLAS Brochures:**

The brochure expense consists of \$335 for paper and toner and \$275 is anticipated for another order of 4,000 "Quarter Card" handouts.

**Summary:**

The Board and participating committee members have increased several budget items in an effort to increase our ability to engage current members, provide continue support the highly successful Library Telescope Program, and to better support SLAS's outreach efforts. The budget for Library Telescope maintenance budget was increased to reflect the ongoing needs of the now mature program. The SLAS Library budget includes additional funds for the purchase of additional solar system globes which have proven to be popular attractions at daytime and indoor STEM related outreach events (particularly important when there are multiple events on the same day). An Outreach budget line has been established to account for the transportation of materials to major outreach events such as the Air Show. The net result is 2019 budget as presented equals a net loss from operations of \$2,655, compared a budgeted net loss of \$2,600 for the 2018 and a budgeted net loss of \$1,940 for the 2017. Meeting the projected expenses for the upcoming year will require supplementing the operations from cash reserves to the extent donations and other revenue sources do not make up the shortfall. The below the line expenses for the Library Telescope Escrow total \$500, same as for 2018. All attempts have been made during this process to continue to provide valued programs for the membership.

If you have questions about the amounts presented in this budget, please direct them either to me or the relevant committee chairs.

Respectfully,  
Bill Winningham, Treasurer

ST. LOUIS ASTRONOMICAL SOCIETY PRELIMINARY OPERATING BUDGET - 2019									
	Actual	Budget	Projection		Budget				
	Year to Date	Year to Date	Sept-18 to	Year to date	Annual	Annual	Annual	Annual	Annual
	Aug-18	Aug-18	Dec-18	Dec-18	2015	2016	2017	2018	2019
<b>Income</b>									
<b>Magazine Subscription</b>									
Total Magazine Subscription	\$ 1,207.10	\$ 1,205.50	\$ 377.40	\$ 2,061.38	\$ 2,034.10	\$ 1,734.40	\$ 952.50	\$ 1,338.90	\$ 1,338.90
Membership Dues	\$ 2,880.00	\$ 3,030.00	\$ 940.00	\$ 3,820.00	\$ 3,440.00	\$ 3,725.00	\$ 3,600.00	\$ 3,970.00	\$ 4,170.00
Merchandise Sales									
<b>Total Income</b>	\$ 4,087.10	\$ 4,235.50	\$ 1,317.40	\$ 5,881.38	\$ 5,474.10	\$ 5,459.40	\$ 4,552.50	\$ 5,308.90	\$ 5,508.90
<b>Cost of Goods Sold</b>									
Total Magazine Subscriptions	\$ 1,220.10	\$ 1,205.50	\$ 377.40	\$ 1,597.50	\$ 2,034.10	\$ 1,734.40	\$ 952.50	\$ 1,338.90	\$ 1,338.90
Merchandise (85.92)		45.00							
<b>Total Cost of Goods Sold</b>	\$ 1,134.18	\$ 1,250.50	\$ 377.40	\$ 1,597.50	\$ 2,034.10	\$ 1,734.40	\$ 952.50	\$ 1,338.90	\$ 1,338.90
<b>Gross Profit</b>	\$ 2,952.92	\$ 2,985.00	\$ 940.00	\$ 4,283.88	\$ 3,440.00	\$ 3,725.00	\$ 3,600.00	\$ 3,970.00	\$ 4,170.00
<b>Operating Expense</b>									
<b>Programs &amp; Events</b>									
Home Made Fest	99.94	100.00	-	99.94	100.00	100.00	100.00	100.00	100.00
Star BBQ Expense	-	-	200.00	200.00	175.00	175.00	175.00	200.00	200.00
Library Scope Program Expense	138.19	200.00	61.81	200.00	600.00	200.00	200.00	200.00	450.00
Outreach	-	650.00	-	-	-	-	547.90	-	650.00
Eclipse Workshop Dues	-	-	-	-	200.00	200.00	-	-	-
2017 Eclipse Committee	-	-	-	-	200.00	-	-	-	-
<b>Meeting Expenses</b>									
Meeting Refreshments	135.11	233.00	60.00	195.11	450.00	350.00	350.00	350.00	350.00
Meeting Speaker Fees	574.27	400.00	-	574.27	250.00	250.00	800.00	600.00	500.00
<b>Total Meeting Expenses</b>	\$ 709.38	\$ 633.00	\$ 60.00	\$ 769.38	\$ 700.00	\$ 600.00	\$ 950.00	\$ 950.00	\$ 850.00
Membership Initiatives	\$ 160.24	\$ 267.00	239.76	\$ 400.00	\$ 200.00	\$ 200.00	\$ 200.00	\$ 200.00	\$ 400.00
Merchandise					\$ 120.00	45.00	45.00	45.00	100.00
Membership Recognition	54.25	200.00	245.75	300.00	200.00	260.00	300.00	300.00	300.00
<b>Programs &amp; Events</b>	\$ 1,162.00	\$ 2,050.00	\$ 807.32	\$ 1,969.32	\$ 2,495.00	\$ 1,780.00	\$ 2,270.00	\$ 1,995.00	\$ 3,050.00
Newsletter (Postage only pre 2019)	\$ 130.00	\$ 117.00	\$ 45.00	\$ 175.00	\$ 180.00	\$ 200.00	\$ 175.00	\$ 175.00	\$ 500.00
<b>Total Newsletter</b>	\$ 130.00	\$ 117.00	\$ 45.00	\$ 175.00	\$ 180.00	\$ 200.00	\$ 175.00	\$ 175.00	\$ 500.00
Library expense	\$ 248.40	\$ 200.00	\$ 50.00	\$ 298.40	\$ 300.00	\$ 100.00	\$ 300.00	\$ 300.00	\$ 470.00
Astronomical League Dues	825.00	760.00	-	825.00	650.00	695.00	670.00	760.00	825.00
Loaner Scopes	512.14	600.00	-	512.14	200.00	50.00	50.00	600.00	100.00
Insurance	825.50	825.00	-	825.50	380.00	380.00	380.00	825.00	825.00
Website	288.37	170.00	-	288.37	135.00	150.00	170.00	170.00	285.00
<b>Administrative Expenses</b>									
Corporate Filings	20.50	20.00	-	20.50	-	20.00	-	20.00	-
Office Supplies	25.62	75.00	-	25.62	165.00	165.00	100.00	100.00	100.00
Banking Fees	28.99	25.00	-	28.99	-	-	25.00	25.00	30.00
PayPal Fees	11.59	25.00	15.00	26.59	40.00	40.00	40.00	40.00	40.00
Postage	40.00	60.00	50.00	90.00	75.00	90.00	90.00	90.00	90.00
Printing / Copying Expense (combined 2015)	270.00	912.00	500.00	770.00	888.00	1,115.00	1,370.00	1,370.00	-
Brochures									610.00
<b>Administrative Expenses</b>	\$ 396.70	\$ 1,117.00	\$ 565.00	\$ 961.70	\$ 1,168.00	\$ 1,430.00	\$ 1,625.00	\$ 1,645.00	\$ 870.00
<b>Total Operating Expense</b>	\$ 4,388.11	\$ 5,839.00	\$ 1,467.32	\$ 5,855.43	\$ 5,508.00	\$ 4,785.00	\$ 5,640.00	\$ 6,470.00	\$ 6,925.00
<b>Net Income/(Loss) From Operations</b>	\$ (1,435.19)	\$ (2,854.00)	\$ (527.32)	\$ (1,571.55)	\$ (2,068.00)	\$ (1,060.00)	\$ (2,040.00)	\$ (2,500.00)	\$ (2,755.00)

ST. LOUIS ASTRONOMICAL SOCIETY PRELIMINARY OPERATING BUDGET - 2019									
	Actual	Budget	Projection		Budget				
	Year to Date	Year to Date	Sept-18 to	Year to date	Annual	Annual	Annual	Annual	Annual
	Aug-18	Aug-18	Dec-18	Dec-18	2015	2016	2017	2018	2019
<b>Other Income / Expense</b>									
<b>Other Income</b>									
<b>Donations</b>									
SLAS Club Members	35.00			35.00	-	-	-	-	-
Donations - Other	1,294.50		725.00	2,019.50	-	-	-	-	-
<b>Total Donations</b>	\$ 1,329.50		\$ 725.00	\$ 2,054.50	\$ -	\$ -	\$ -	\$ -	\$ -
Interest Income	\$ 73.82	\$ 66.67	\$ 24.61	\$ 98.43	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00
Non-Operating Income (Astro Mag Award)									
<b>Total Other Income</b>	\$ 1,403.32	\$ 66.67	\$ 1,474.61	\$ 2,152.93	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00
<b>Other Expense</b>									
Physical Inventory Adjustment	\$ -			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Astro Mag Award Disbursements			\$ -	-					
2017 Eclipse Escrow Funding	\$ 1,500.00	\$ 1,500.00				\$ 800.00	\$ 1,000.00	\$ -	\$ -
LTP Escrow Funding	\$ 1,000.00	\$ 1,000.00				\$ 1,000.00	1,000.00	500.00	500.00
<b>Total Other Expense</b>	\$ 2,500.00	\$ 2,500.00	\$ -	\$ -	\$ -	\$ 1,800.00	\$ 2,000.00	\$ 2,500.00	\$ 500.00
<b>Net Other Income / (Expense)</b>	\$ (1,096.68)	\$ (2,433.33)	\$ 1,474.61	\$ 2,152.93	\$ 100.00	\$ (1,700.00)	\$ (1,900.00)	\$ (2,400.00)	\$ (400.00)
<b>Net Income / (Loss)</b>	\$ (2,531.87)	\$ (5,287.33)	\$ 947.29	\$ 581.38	\$ (1,968.00)	\$ (2,760.00)	\$ (3,940.00)	\$ (4,900.00)	\$ (3,155.00)

ST. LOUIS ASTRONOMICAL SOCIETY									
PRELIMINARY OPERATING BUDGET - 2019									
	Actual		Budget		Projection		Budget		
	Year to Date	Year to Date	Sept-18 to	Year to date	Annual	Annual	Annual	Annual	Annual
	Aug-18	Aug-18	Dec-18	Dec-18	2015	2016	2017	2018	2019
<b>Required versus Discretionary Spending</b>									
Gross Profit	\$ 2,952.92	\$ 2,965.00	\$ 940.00	\$ 4,283.88	\$ 3,440.00	\$ 3,725.00	\$ 3,700.00	\$ 4,070.00	\$ 4,270.00
<b>Required Expenses</b>									
Newsletter (postage only pre 2019)	\$ 130.00	\$ 117.00	\$ 45.00	\$ 175.00	\$ 180.00	\$ 200.00	\$ 175.00	\$ 175.00	\$ 500.00
Astronomical League Dues	825.00	760.00	-	825.00	650.00	695.00	670.00	760.00	825.00
Insurance	825.50	825.00	-	825.50	380.00	380.00	380.00	825.00	825.00
Website	288.37	170.00	-	288.37	135.00	150.00	170.00	170.00	285.00
Corporate Filings	20.50	20.00	-	20.50	-	20.00	-	20.00	-
Office Supplies	25.62	75.00	-	25.62	165.00	165.00	100.00	100.00	100.00
Banking Fees	28.99	25.00	-	28.99	-	-	25.00	25.00	30.00
PayPal Fees	11.59	25.00	15.00	26.59	40.00	40.00	40.00	40.00	40.00
Postage	40.00	60.00	50.00		75.00	90.00	90.00	90.00	90.00
Brochures									610.00
Printing / Copying Expense	270.00	912.00	500.00	770.00	888.00	1,115.00	1,370.00	1,370.00	-
	\$ 2,465.57	\$ 2,969.00	\$ 610.00	\$ 2,985.57	\$ 2,513.00	\$ 2,855.00	\$ 3,020.00	\$ 3,575.00	\$ 3,305.00
Balance for Discretionary Items	\$ 487.35	\$ (4.00)	\$ 330.00	\$ 1,298.31	\$ 927.00	\$ 870.00	\$ 680.00	\$ 495.00	\$ 965.00
<b>Discretionary Spending</b>									
Home Made Fest	99.94	100.00	-	99.94	100.00	100.00	100.00	100.00	100.00
Meeting Refreshments	135.11	233.00	60.00	195.11	450.00	350.00	350.00	350.00	350.00
Meeting Speaker Fees	574.27	400.00	-	574.27	250.00	250.00	600.00	600.00	500.00
Membership Initiatives	160.24	267.00	239.76	400.00	200.00	200.00	200.00	400.00	400.00
Merchandise	-	-	-	-	120.00	45.00	45.00	45.00	100.00
Membership Recognition	54.25	200.00	245.75	300.00	200.00	260.00	300.00	300.00	300.00
Outreach	-	-	-	-	-	-	300.00	-	650.00
Star BBQ Expense	-	-	200.00	200.00	175.00	175.00	175.00	200.00	200.00
Library expense	248.40	200.00	50.00	298.40	300.00	100.00	300.00	300.00	470.00
Loaner Scopes	512.14	600.00	-	512.14	200.00	50.00	50.00	600.00	100.00
Library Scope Program Expense	138.19	200.00	61.81	200.00	600.00	200.00	200.00	200.00	450.00
Eclipse Workshop Dues	-	-	-	-	200.00	200.00	-	-	-
2017 Eclipse Committee	-	-	-	-	200.00	-	-	-	-
	\$ 1,922.54	\$ 2,200.00	\$ 857.32	\$ 2,779.86	\$ 2,995.00	\$ 1,930.00	\$ 2,620.00	\$ 3,095.00	\$ 3,620.00
<b>Net Income/(Loss) From Operations</b>	\$ (1,435.19)	\$ (2,204.00)	\$ (527.32)	\$ (1,481.55)	\$ (2,068.00)	\$ (1,060.00)	\$ (1,340.00)	\$ (2,600.00)	\$ (2,655.00)
<b>Other Expense</b>									
2017 Eclipse Escrow Funding						\$ 800.00	\$ 1,000.00	N/A	N/A
Library Telescope Program Escrow Funding						1,000.00	1,000.00	500.00	500.00
<b>Total Other Expense</b>					N/A	\$ 1,800.00	\$ 2,000.00	\$ 500.00	\$ 500.00
<b>Actual Historical Net Income for prior years</b>				\$ 2,243.34	\$ 368.42	\$ 30,000.32	\$ 10,680.08		
				(2014)	(2015)	(2016)	(2017)		

## ALCon 2019 - July 25-29, 2019 - Kennedy Space Center, FL and Southern Skies Cruise to Bahamas

<https://www.astroleague.org/images/solar/alcon-2019-july-25-29-2019-kennedy-space-centerfl-and-southern-skies-cruise-bahamas>

Join the Astronomical League to commemorate the 50th anniversary of the first moon landing! First, tour the Kennedy Space Center, the site of the Apollo 11 launch. Then, enjoy a three-day cruise to the Bahamas on a ship by Royal Caribbean and see the southern Milky Way of Sagittarius and Scorpius! Thursday July 25, after the KSC tour, stay on-shore at a hotel in Titusville (to be arranged).

You will need a passport valid through January 2020 or later. (Yes, at least six months after the cruise!)

Royal Caribbean cruise ship leaves Port Canaveral Friday afternoon July 26 and returns Monday morning July 29.

Cruise cabins are limited. Reservations are being accepted, with a \$100 initial down payment. Pricing (based on double occupancy) for the whole weekend cruise including meals is set at \$399 per person (PP) for inside cabins, \$579 PP for outside cabins, and \$589 PP for Balcony cabins. Singles, triples, and quad rates are available upon request with our agent. Members of the Astronomical League only: To reserve your cabin with a \$100 deposit, and for additional cruise details, please contact Marsha at Lin-Mar Travel, 631-736-1049 or [marsha@travelwithlin-mar.com](mailto:marsha@travelwithlin-mar.com).

## SLAS Executive Board Meeting Minutes November 1, 2018

1. **Opening Activities: Attending:** Bill Winningham, Larry Campbell, Tom Nickels, Bradley Waller, Brent Buch, Jim Small, Mark Jones Meeting opened at 7:00pm October meeting minutes were distributed before the meeting review. Motion to approve the minutes made by Rich H. second by Bill W. Minutes were approved
2. **External Business Next board meeting:** Dec 6 Board meetings will be held at Nicoletti's Restaurant in Valley Park until further notice. 2019 first Thursday dates include: Jan 3, Feb 7, Mar 7, Apr 4, May 2, Jun 6, Jul 11 (4<sup>th</sup> is 1<sup>st</sup> Thursday), Aug 1, Sep 5, Oct 3, Nov 7, Dec 5 Motion for Board to approve 2019 board meeting dates as listed above: Motion by Jim S. second by Tom N. Motion passed

**3. Director Reports:**

**President – Jim Small:** Proposed contribution to IDA in conjunction with Missouri Chapter for IDA. Tie the amount to membership? Board agrees to propose a motion to general membership for a contribution to the Missouri IDA once it has achieved non-profit entity status. Board would recommend an annual contribution of \$1 per single member and \$2 per family membership. The motion would be kept separate from annual budget and voted on annually by membership.

**Vice President: Bradley R Waller**

**SLAS Monthly Meetings**

Month	Name	Topic	Sponsor
16-Nov-2018	Brad Jolliff, PhD	Lunar Geology	Wash U
21-Dec-2018	Pamela Gay, PhD	Super-Secret Squirrel Stuff...Again :) ASP: Astronomical Society of the Pacific	

**Presentations 2019**

Month	Name	Topic	Sponsor
18-Jan-2019	Erika Gibb, PhD	Comets	UMSL
15-Feb-2019	K Michael Malolepszy	The Year in Planetary Exploration	SLAS
15-Mar-2019	Bruce Stinchcomb, PhD	Meteorites	Flo-Valley
19-Apr-2019	Bob King "Astro Bob"		
17-May-2019	Craig O'Mara	Flying SOFIA	NASA
21-Jun-2019	Josiah Lewis, PhD	Presolar Grains: Solids from Other Stars Studied in the Lab	Wash U
19-Jul-2019	Ryan Clegg-Watkins, PhD	Exploring the Moon from Orbit: Paving the Way for Future Astronaut Explorers	Wash U
16-Aug-2019	Angela Speck, PhD	2019 Solar Eclipse Results	Mizzou
20-Sep-2019	Don Hampton, PhD	Aurora Borealis & Steve	UAF
15-Nov-2019	Claire Chandler, PhD	Super-Earths and the Formation of the Solar System	NRAO
20-Dec-2019	Duncan Lorimer, PhD	Fast Radio Bursts: "Lorimer Bursts"	UWVA-Skye Event

NRAO: National Radio Astronomy Observatory UAF: University of Alaska: Fairbanks UWVA: University of West Virginia

**Astro 101:** No A101 will be planned for November due to membership pins and budget presentation

\*Welcome Aboard Meetings for new members are still planned for each month.

**Secretary – Mark Jones:** No report

**Treasurer/ALCor – Bill Winningham:** Budget proposal and final approval. Based on our current assets Bill recommends we place approximately \$25,000-30,000 in higher return bank CDs. Bill will research and make report to the Board. Bill reviewed 2019 budget narrative. The Board and participating committee members have increased several budget items in anticipation of increased interest following the 2017 Eclipse as well as continued high volume of star parties and related public event associated with the Library Telescope program. The budget for SLAS's loaner scope program has been expanded to purchase much needed cases and accessories and to make SLAS's fine collection of loaner scopes more visible and accessible to the membership. The budget for speakers has been retained at the 2017 level in order to attract quality speakers from a larger radius and to support the participation of graduate students. Similar to 2017, funding for the Library Telescope Escrow have been categorized as an investment and will be recorded as below-the-line (other) expenses. The net result is 2017 budget as presented equals a net loss from operations of \$2,600 for 2018, compared a net loss of \$1,940 for the 2017 budget and a net loss of \$1,060 for the 2016 budget. Meeting the projected expenses for the upcoming year will require supplementing the operations from cash reserves to the extent donations and other revenue sources do not make up the shortfall. The below the line expenses for the Library Telescope Escrow total \$500. All attempts have been made during this process to continue to provide valued programs for the membership. Projected 2019 net loss is \$2655 plus \$500 below the line escrow. Motion to approve the preliminary budget and take to general membership for approval made by Bill W., second by Tom N. Motion passed. Budget will be presented at November membership meeting for discussion and for membership vote at the December meeting.

**Hospitality – Larry Campbell:** See membership recognition

**Board member at large reports**

**Rich Heuermann (2019)** Trout Lodge funds update, Don suggesting providing Library Telescope to Trout Lodge using TL funds. Board directs Rich to coordinate the deadline of Nov 30<sup>th</sup> with TL. If no reply, then check will be issued.

**Tom Nickelson: (2020)** No Report

**Brent Buch (2021)** Brent has four 2018 videos on SLAS website ready to go live. Brent will write up policy for how members would have access and through account.

**4. Committee Reports: If needed**

**Membership Volunteering –** As of end of October members have over 1,240 hours of volunteer time. Over 20 members have qualified for the NSN volunteer pin with 5 or more events.

**Membership recognition –** Anniversary pins for this year are in and Brad has printed the certificates.

**Membership –** Our current membership count is 179 members.

**Newsletter –** Please forward articles to [newsletter@slasonline.org](mailto:newsletter@slasonline.org)

**Social Networking –** Public Facebook site going well, over 250 "likes". Members-only FB at 40 members

**Night Sky Network –** coordinators

**SLASdialogs –** Over 120 members

**Jefferson College Observatory/Dark Site –** In August 2018, Jefferson College

Observatory Committee proposed plans to college administration. In September SLAS Board approved motion to assist the college to equip the observatory with one or more telescopes and supporting equipment as agreed to by both parties. In October SLAS Board approved motion to begin negotiating with a local family to purchase their dome and telescope. Final terms will include a "subject to" clause requiring approval by the SLAS membership. The intent would be to setup the observatory at Jefferson College Campus. Jefferson College supports this idea and will add space to include this observatory if their capital budget is approved. SLAS Board has draft letter to send to family explain our interest and asking to proceed.

**Loaner – Scopes** 7 telescopes sold at the October meeting. They included: 1. 6" homemade Newtonian with PVC body, 3" Newtonian and eq mount, 4.5" Newtonian and eq mount, 4.5" Newtonian with digital goto mount, 6" homemade dob with wooden body, 60mm Celestron Refractor with mount, Jason refractor with mount. Total sales = \$120 to remain with loaner scope account.

**Publicity –** Press release for November meeting and presenter has been sent out to local media.

**Star Parties-** Challenger Learning Center this Saturday 10-4, Audubon Center at Riverlands, Nov 9th

**5. Old Business** None

**6. New Business** See motions made above

**7. Closing Activities** Motion to adjourn by Brad, second by Tom, meeting adjourned 9:12pm

Category	1/1/2018	2018 YTD			10/31/2018	% chg
		New	Expired (1)	Other (2)		
Individual	118	22	-26	5	119	1%
Family	60	12	-16	-4	52	-13%
Youth	7	6	-4	-1	8	14%
<b>TOTAL</b>	<b>185</b>	<b>40</b>	<b>-46</b>	<b>0</b>	<b>179</b>	<b>-3%</b>



8:25 AM  
12/19/18  
Accrual Basis

**St. Louis Astronomical Society  
Profit & Loss Budget vs. Actual  
January through November 2018**

	<u>Jan - Nov 18</u>	<u>Budget</u>	<u>\$ Over Budget</u>
Ordinary Income/Expense			
Income			
Loaner Scope Sales	118.71	0.00	118.71
Total Magazine Subscription	1,530.75	1,531.10	(0.35)
Membership Dues	3,765.00	3,735.00	30.00
<b>Total Income</b>	<b>5,414.46</b>	<b>5,266.10</b>	<b>148.36</b>
Cost of Goods Sold			
Total Magazine Subscriptions	1,539.70	1,531.10	8.60
Total Merchandise	419.75	45.00	374.75
<b>Total COGS</b>	<b>1,959.45</b>	<b>1,576.10</b>	<b>383.35</b>
<b>Gross Profit</b>	<b>3,455.01</b>	<b>3,690.00</b>	<b>(234.99)</b>
Expense			
1-Programs & Events	1,761.77	2,011.00	(249.23)
2-Newsletter	130.00	161.00	(31.00)
3-Library expense	248.40	275.00	(26.60)
4-Astronomical League Dues	825.00	760.00	65.00
5-Loaner Scopes	512.14	600.00	(87.86)
7-Insurance	825.00	825.00	
8-Website	288.37	170.00	118.37
9-Administrative Expenses	659.33	1,519.00	(859.67)
<b>Total Expense</b>	<b>5,250.01</b>	<b>6,321.00</b>	<b>(1,070.99)</b>
<b>Net Ordinary Income</b>	<b>(1,795.00)</b>	<b>(2,631.00)</b>	<b>836.00</b>
Other Income/Expense			
Other Income			
Total Donations	2,104.50	0.00	2,104.50
Interest Income	102.71	91.00	11.71
LTP Receipts	4,714.96	0.00	4,714.96
Proceeds from Lens Sales	4,270.30	0.00	4,270.30
<b>Total Other Income</b>	<b>11,192.47</b>	<b>91.00</b>	<b>11,101.47</b>
Other Expense			
LTP Disbursements	4,875.26	0.00	4,875.26
LTP Escrow Funding	500.00	500.00	0.00
<b>Total Other Expense</b>	<b>5,375.26</b>	<b>500.00</b>	<b>4,875.26</b>
<b>Net Other Income</b>	<b>5,817.21</b>	<b>(409.00)</b>	<b>6,226.21</b>
<b>Net Income</b>	<b>4,022.21</b>	<b>(3,040.00)</b>	<b>7,062.21</b>

**St. Louis Astronomical Society  
Balance Sheet**

As of November 30, 2018

	<u>Dec 31, 17</u>	<u>Nov 30, 18</u>
<b>ASSETS</b>		
Current Assets		
Checking/Savings		
Checking - First Bank	5,162.74	9,259.75
Deposit, Certificate of	20,188.79	20,219.02
Library Telescope Escrow*	299.98	(23.61)
PayPal	563.55	299.38
Savings - First Bank	46,297.03	46,369.51
YMCA Trout Lodge Escrow	482.87	482.87
<b>Total Checking/Savings</b>	<b>72,994.96</b>	<b>76,606.92</b>
Other Current Assets		
Inventory Asset	511.28	891.53
Undeposited Funds	50.00	0.00
<b>Total Other Current Assets</b>	<b>561.28</b>	<b>891.53</b>
<b>Total Current Assets</b>	<b>73,556.24</b>	<b>77,498.45</b>
<b>Total Fixed Assets</b>	<b>0.00</b>	<b>0.00</b>
<b>TOTAL ASSETS</b>	<b>73,556.24</b>	<b>77,498.45</b>
<b>LIABILITIES &amp; EQUITY</b>		
Equity		
Opening Bal Equity	8,137.66	8,137.66
Retained Earnings	54,813.50	65,418.58
Net Income	10,605.08	4,022.21
<b>Total Equity</b>	<b>73,556.24</b>	<b>77,578.45</b>
<b>TOTAL LIABILITIES &amp; EQUITY</b>	<b>73,556.24</b>	<b>77,578.45</b>

\* Note that there are \$105 in Library Telescope funds in the Paypal account awaiting transfer as of October 30. Following the transfer from Paypal the LTP Escrow has a positive balance of approximately \$80.

**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 astro photos? Please submit!**
- 3. Bought something or built something? How about a review or an article!**

**Send to [newsletter@slasonline.org](mailto:newsletter@slasonline.org)**

## SLAS EVENTS

### 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** Location will be at *Nicoletti's Restaurant in Valley Park* All meetings are on First Thursdays unless noted.

Jan 3, Feb 7, Mar 7, Apr 4, May 2, Jun 6, Jul 11 (4<sup>th</sup> is 1<sup>st</sup> Thursday), Aug 1, Sep 5, Oct 3, Nov 7, Dec 5

#### Dark Sky Observing Dates

See you in the spring!

**Francis Park Events:** These events are on Wednesdays of the week nearest the first quarter Moon

See you in the Spring!

**Sky Orienteering Events** For members who want to gather and do some relaxed observing at Babler State Park orienteering. 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

Jan 4, Feb 1, Mar 1, Apr 5, May 3, Jun 7, Jul 5, Aug 2, Sep 6, Oct 4, Nov 1, Dec 6

#### Pattonville Observatory Public Viewing Dates

1-11, 1-25, 2-8, 2-22, 3-8, 3-22, 4-12, 4-26, 5-10, 5-24

#### Broemmelsiek Astronomy Park Public Viewing

Every Friday night with ASEM members

#### UMSL Observatory

For directions and map

<http://www.umsu.edu/~physics/About%20the%20Department/astro.html>

All sessions include viewing of 1st quarter Moon with additional objects

Skywatch Hotline: 314-516-5706

Saturdays:

21 Fri

3 Thur

4 Fri

5 Sat

10 Thur

15 Tue

16 Wed

18 Fri

20 Sun

1 Fri

2 Sat

7 Thur

11 Mon

12 Tue

15 Fri

23 Sat

28 Thur

1 Fri

1 Fri

2 Sat

7 Thur

13 Wed

14 Thur

14 Thur

15 Fri

18 Mon

19 Tue

20 Wed

20 Wed

30 Sat

4 Thur

5 Fri

6 Sat

10 Wed

11 Thur

16 Tue

December

SLAS Regular Meeting

January

SLAS Board Meeting

SLSC Public Telescope Viewing

SLAS Dark Sky Observing

Eureka Library Program

Central Library

Jamestown Bluffs Library

SLAS Regular Meeting

Total Lunar Eclipse

February

SLSC Public Telescope Viewing

SLAS Dark Sky Observing

SLAS Board Meeting

Grant's View Library

St. Louis Public Library

SLAS Regular Meeting

Library Telescope Build

St. Louis Public Library

March

SLSC Public Telescope Viewing

Parkway School STEM Fest

SLAS Dark Sky Observing

SLAS Board Meeting

Rock Road Library

Crestwood Elementary School

Bridgeton Trails Library

SLAS Regular Meeting

St. Louis County HQ Library

Samuel C. Sachs Library

Cliff Cave Library

St. Louis Public Library

Library Telescope Maintenance

April

SLAS Board Meeting

SLSC Public Telescope Viewing

SLAS Dark Sky Observing

Florissant Valley Library

Thornhill Library

Natural Bridge Library

### 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 Merchandise Available

SLAS merchandise is now set up for embroidery at

Headz n Threadz at <https://hnt.threadthis.com/>

There are two locations:

**Galleria:** 2495 St. Louis Galleria, St. Louis, MO 63117 Telephone: 314.862.2695  
galleria@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 MEMBERSHIP APPLICATION



Name: Last \_\_\_\_\_  
 First, Middle Initial \_\_\_\_\_  
 Address \_\_\_\_\_  
 City, State, Zip Code \_\_\_\_\_  
 email address \_\_\_\_\_

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 @ \$32.95 / 1 year \$ \_\_\_\_\_  
 (S&T may also be renewed at their website:  
<http://www.skyandtelescope.com>)  
 Astronomy @ \$29.95 / 1 year \$ \_\_\_\_\_  
**TOTAL ENCLOSED \$ \_\_\_\_\_**

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

Check all that apply:  
 Renewal  
 Address Change Only  
 Please send my newsletter by regular mail  
 **New Member!**

## SLAS OFFICERS

<b>President</b>	<b>Jim Small</b>	314-307-0692
president at slasonline.org		
<b>Vice President</b>	<b>Bradley R Waller</b>	314-481-7250
vicepresident at slasonline.org		
<b>Secretary</b>	<b>Mark Jones</b>	636-394-2342
secretary at slasonline.org		
<b>Treasurer</b>	<b>Bill Winningham, (Don Ficken - membership)</b>	636-357-2763
treasurer at slasonline.org		
<b>Hospitality</b>	<b>Larry Campbell</b>	636-244-2867
hospitality at slasonline.org		
<b>Board Members at Large:</b>		
	<b>Rich Heuermann</b>	314-962-9231
Board19 at slasonline.org		
	<b>Brent Buch</b>	314-239-0329
Board21 at slasonline.org		
	<b>Tom Nickelson</b>	314-346-9565
Board22 at slasonline.org		
<b>ALCOR</b>	<b>Bill Winningham</b>	636-357-2763
(Astronomical League Correspondent ) treasurer at slasonline.org		
<b>MSRAL Rep.</b>	<b>Jim Small</b>	314-909-7211
msral_rep at astroleague.org		

## COMMITTEE CHAIRS

<b>Dark Site Coordinator</b>	<b>Mark Jones</b>	636-394-2342
darksite at slasonline.org		
<b>Librarian</b>	<b>Jim Small</b>	314-909-7211
librarian at slasonline.org		
<b>Library Telescope Program</b>	<b>Don Ficken</b>	636-851-9630
librarytelescope at slasonline.org		
<b>Loaner Equipment</b>	<b>Greg Gaines</b>	314-277-3082
loaner at slasonline.org		
<b>Merchandise</b>	<b>Vacant</b>	
merchandise at slasonline.org		
<b>Membership</b>	<b>Don Ficken</b>	636-225-0269
membership at slasonline.org		
<b>Newsletter Editor</b>	<b>Jim Small</b>	314-909-7211
newsletter at slasonline.org		
<b>Observing Programs</b>	<b>Mark Jones</b>	636-394-2342
observing at slasonline.org		
<b>Publicity</b>	<b>Rich Heuermann</b>	314-962-9231
publicity at slasonline.org		
<b>Recognition</b>	<b>Larry Campbell</b>	636-244-2867
recognition at slasonline.org		
<b>Social Media</b>	<b>Vacant</b>	
'SLASdialogs' Moderator <b>Mark Jones, Rhonda Whelan</b>		
dialogsmoderator at yahoo.com		
<b>Star Party Coordinator</b>	<b>Bill Breden</b>	314-276-3613
starparty at slasonline.org		
<b>Telescope Making</b>	<b>Bill Davis, Jim Melka</b>	314-469-3061
telescope at slasonline.org		
<b>Webmaster</b>	<b>Jim Small</b>	314-909-7211

***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

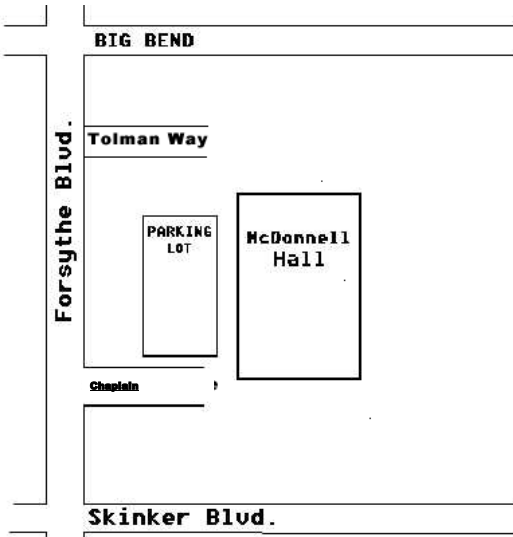


**Who We Are and What We Do**

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 anyone 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

