

THE EVENT HORIZON



ST. LOUIS ASTRONOMICAL SOCIETY

Devoted to the Interest and Advancement of the Science of Astronomy

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Lunar Geology **by** **Bradley Jolliff, PhD** **Earth and Planetary Sciences** **Washington University**

Dr. Bradley Jolliff of Washington University, will be featured at the November meeting of the St. Louis Astronomical Society. The meeting will begin at 7:30 PM on Friday, November 16, in McDonnell Hall, Room 162, on the Washington University campus, Saint Louis, MO 63130. McDonnell Hall is accessible from Forsyth Boulevard via Tolman Way.

What are the moon rocks made of (spoiler alert – not green cheese) and how were they formed? What do the Moon's surface features tell us about its early history? Is there water on the Moon, and if so, where is it? Dr. Jolliff will talk about lunar geology,

and how the study of Apollo astronaut lunar samples, lunar meteorites, and orbiting cameras are used to understand the Moon's surface, interior, and changes over time.

Dr. Jolliff is a professor in Earth and Planetary Sciences. His teaching and research focus is on the Moon and Mars, the materials that make up their surfaces and interiors, and what they tell about the planet's history. Dr. Jolliff is a member of NASA's Mars Exploration Rovers operations team and the NASA Lunar Reconnaissance Orbiter Camera science team.

Upcoming Meetings: 2018

December Pamela Gay, PhD ASP
Secret Squirrel Part 2



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December Meeting **Secret Squirrel Part 2**

by

Pamela Gay, PhD **Astronomical Society** **of the Pacific**

Friday, December 21, 7:30pm

Join us as Dr. Gay clues us in to the very latest! We will also meet with her for dinner after the meeting if you wish to join!

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!

Presidents Corner by Jim Small

It's star party season in full force! Be sure to look over the calendar, especially where there are multiple events on a single night and sign up to help out. Even if you don't have a telescope, you can be of help. If you want to learn the easy way, sign up for a library telescope party. We can train you to do the outreach for those events in ten minutes and you don't even need to bring any equipment! We provide the telescopes for those events. See Don Ficken to inquire about Library Telescope star parties.

Homemade Fest was 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!

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. There is a presentation and discussion of the budget at the November meeting. The membership will vote on it at the December meeting.

Congratulations to Don Ficken as he attended the gala at the Astronomical Society of the Pacific in San Francisco last weekend to receive the Las Cumbres Outreach Award for 2018. It was well deserved! We are all proud of the accomplishments Don has led and honored to have him working for our society. Be sure to congratulate him when you see him. There will be a more detailed article in next months newsletter.

Next month we will also auction off a fine homemade refractor that was donated to the society. It is aluminum and I think it might be f15 focal ratio! It is very detailed and the mount was also handmade. We will have an article and pictures in the next newsletter as well.

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.



**Don Ficken Awarded
Las Cumbres Outreach
Award from the
Astronomical Society of the
Pacific**

The Las Cumbres Amateur Outreach Award is awarded for outstanding outreach by an amateur astronomer to children and the public

The Las Cumbres Amateur Outreach Award, given for the first time in 2001, seeks to honor outstanding educational outreach by an amateur astronomer to K-12 children and the interested lay public.

The 2018 recipient is Don Ficken, a member of the St. Louis Astronomical Society.

About the ASP

Since its humble beginnings in 1889 as a membership society for professional and amateur astronomers, the ASP has evolved into one of the most recognized and well-respected nonprofit astronomy organizations in the country. The ASP is dedicated to bringing together professionals, amateurs, educators, and enthusiasts for the purpose of increasing the understanding of astronomy and improving how we teach that knowledge to others. Boasting a diverse portfolio of astronomy edu-

cation initiatives funded by NASA and the NSF, professional research journals and publications, and annual awards designed to recognize the achievements of professional and amateur astronomers as well as the work done by formal and informal educators, the ASP is unique in its mission to foster science literacy through the wonder and excitement of astronomy. The ASP is headquartered in San Francisco, and is financially supported by donations, grants, corporate sponsorships, subscriptions, member dues, and retail sales.

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.

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 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 50th 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
Income									
Magazine Subscription									
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									
Total Income	\$ 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
Cost of Goods Sold									
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							
Total Cost of Goods Sold	\$ 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
Gross Profit	\$ 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
Operating Expense									
Programs & Events									
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	-	-	-	-
Meeting Expenses									
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
Total Meeting Expenses	\$ 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
Programs & Events	\$ 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
Total Newsletter	\$ 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	750.00	-	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
Administrative Expenses									
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
Administrative Expenses	\$ 396.70	\$ 1,117.00	\$ 565.00	\$ 961.70	\$ 1,168.00	\$ 1,430.00	\$ 1,625.00	\$ 1,645.00	\$ 870.00
Total Operating Expense	\$ 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
Net Income/(Loss) From Operations	\$ (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
Other Income / Expense									
Other Income									
Donations									
SLAS Club Members	35.00			35.00	-	-	-	-	-
Donations - Other	1,294.50		725.00	2,019.50	-	-	-	-	-
Total Donations	\$ 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)									
Total Other Income	\$ 1,403.32	\$ 66.67	\$ 1,474.61	\$ 2,152.93	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00
Other Expense									
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
Total Other Expense	\$ 2,500.00	\$ 2,500.00	\$ -	\$ -	\$ -	\$ 1,800.00	\$ 2,000.00	\$ 2,500.00	\$ 500.00
Net Other Income / (Expense)	\$ (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)
Net Income / (Loss)	\$ (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
Required versus Discretionary Spending									
Gross Profit	\$ 2,952.92	\$ 2,985.00	\$ 940.00	\$ 4,283.88	\$ 3,440.00	\$ 3,725.00	\$ 3,700.00	\$ 4,070.00	\$ 4,270.00
Required Expenses									
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	360.00	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	\$ 2,989.00	\$ 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
Discretionary Spending									
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
Net Income/(Loss) From Operations	\$ (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)
Other Expense									
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
Total Other Expense					N/A	\$ 1,800.00	\$ 2,000.00	\$ 500.00	\$ 500.00
Actual Historical Net Income for prior years				\$ 2,243.34	\$ 368.42	\$ 30,000.32	\$ 10,580.08		
				(2014)	(2015)	(2016)	(2017)		

RASC Handbook Group Purchase

If you are interested in purchasing a RASC Handbook, contact Jim Small before December 1st. If possible, get the funds to him in advance. Cost will be \$24 including shipping!

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.

2018 Member Recognition List

Five Year pins go to:

Len Aynardi
Sharon Bertram
Eric Kovach
Margie Marcus
Donald Mason
Leon Mc Kinney
Alfred Schovenez

Ten Year pins go to:

Diana Boston
Brent Buch
Earl Schultz

Fifteen Year pins go to:

Bill Beeden
Rita Breeden
Cathy Hooper
John Schwartz
Jim Twellman

Twenty Year pins go to:

Richard Myhra

Twenty Five Year pins go to:

Marvin Fridley
Rick Menendez

Thirty Year pins go to:

Steve Sands

More than Thirty Years certificates go to:

Mark Fedde for 35 years
Thomas Ryan for 35 years
Jim Melke for 65 years

SLAS Volunteer Hours Through 10/24/18

Remember, anyone with 5 or more EVENTS is eligible for a NSN Outreach pin! Events will be listed for the next newsletter.

Sum of Member's Volunteer Hours

Member Name	Total
Donald Ficken	176.50
Cook Feldman	163.00
Bradley Waller	120.50
Mark Jones	84.50
Richard Jennings	52.50
James Small	49.00
John Beaury	48.50
Richard Fefferman	47.00
Bill Breeden	42.50
Rita Breeden	36.50
William Neubert	33.50
Sharon Bertram	31.00
Frank Mack	30.10
Larry Campbell	29.50
Raymond Mueller	28.50
Shanna Ramirez	23.00
Rich Heuermann	21.00
Alfred Schovanez	19.00
Charles Laughton	18.50
Ann Trull	17.00
Jim Trull	17.00
Opal Andrews	15.50
Kevin Koontz	13.00
Carl McCullough	10.00
Rick Menendez	10.00
Brent Buch	10.00
Robert Drzymala	9.50
Eric Gustafson	8.00
Phyllis Nolan	7.50
Alan Whitson	6.50
William Winningham	6.00
David Barry	6.00
Maryanne Angliongton	5.50
Tom Keutzer	5.00
John Strebeck	5.00
Rebecca Schroeter	4.50
Daniel Maloney	4.00
Ramesh Babu Nagarajan	4.00
Marc Sandberg	4.00
Brian Mills	4.00
John Duchek	3.50
Lance Traylor	2.00
John Newcomer	2.00
Mark Goldenberg	2.00
Bill Biermann	1.50
Benjamin Winningham	1.50
Grand Total	1,239.10

SLAS Executive Board Meeting Minutes October 4, 2018

1. Opening Activities: Attending: Bill Winningham, Rich Heuermann, Bradley Waller, Larry Campbell, Jim Small, Brent Buch, Mark Jones Meeting started at 7:02pm September board meeting minutes were distributed before the meeting. A motion to approve minutes made by Jim S and second by Brent B. Minutes were approved.

2. External Business Next board meeting: Nov 1, Dec 6 Board meetings will be held at Nicoletti's Restaurant in Valley Park until further notice.

3. Director Reports:

President – Jim Small: No report

Vice President: Bradley R Waller

Speaker updates Presentations 2018

SLAS Monthly Meetings

Month	Name	Topic	Sponsor
19-Oct-2018	Mao Xiaochen	The Dawn Mission: Vesta and Ceres	Wash U
16-Nov-2018	Brad Jolliff, PhD	Lunar Geology	Wash U
21-Dec-2018	Pamela Gay, PhD	Super-Secret Squirrel Stuff...Again :)	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" (1)	
17-May-2019	Craig O'Mara	Flying SOFIA	NASA
21-Jun-2019	Josiah Lewis, PhD	Presolar Grains: Solids from Other Stars	Wash U
19-Jul-2019	Ryan Clegg-Watkins, PhD	Exploring the Moon from Orbit	Wash U
16-Aug-2019	Angela Speck, PhD	2019 Solar Eclipse Results	Mizzou
20-Sep-2019	Don Hampton, PhD	Aurora Borealis & Steve (1)	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" (1)	UWVA
	(1) Skype event	UAF: University of Alaska: Fairbanks	UWVA: University of West Virginia

***Astro 101:** List was sent out for consideration by Rich Heuermann. Mark Jones will do A101 on telescope magnification

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

Secretary – Mark Jones: Star-B-Q had 25-30 people attend. Larry Campbell was first place winner of Astronomy Quiz

Treasurer/ALCor – Bill Winningham: Budget meeting report and schedule for next meeting Had our first budget meeting. Made good progress. Next meeting is Oct 28th 4pm at Youngs

Hospitality – Larry Campbell: Normal refreshments planned for this month Mark will bring Star-B-Q leftover paper goods to Wash U for monthly meetings Larry will give the remaining 2018 certificates to Bill W and Bill will mail out with annual renewals. Jim S will bring envelope mailers to Bill W to use for certificates

Membership recognition – Larry is working on membership recognition list and will order pins and print certificates

Board member at large reports

Rich Heuermann (2019): Rich presented ideas for A101 topics - see attached previously circulated. Working on October meeting press release. Trout Lodge agrees to spend some of the escrow budget then send TL a check for balance of escrow.

Tom Nickelson (2020): No report

Brent Buch (2021) Brent has 2018 videos uploaded to site. Next step is to configure them for replay. Goal is to get all 2018 videos on website by November Meeting. Brent working on optimizing the compression right now about 500Mb. One problem is site backup now takes much longer with videos uploaded. Still looking at ways to separate videos from backup of site.

4. Committee Reports: If needed

Library Telescope Program: Program now has 160 telescopes

Membership – Our current membership count is 183 members. Attached is the SLAS membership report for September 2018. Our current member count is 183 members with new membership for this year-to-date exceeding last year for the comparative period. However, expirations are nearly double that of last year. Family membership are down and individual membership up which is contributing to the member expirations.

Merchandise – Old SLAS mugs 21. And 46 new SLAS mugs.

Newsletter – Please forward articles to newsletter@slasonline.org

Website – SLAS public Facebook page had 266 likes and 700-800 hits last month

Loaner – Scopes Need to sell off some donated telescopes. Will do the first run at the October meeting

Star Parties- See separate list. Air show will be biggest event this month

5. Old Business None

6. New Business Motion by Don Ficken. Second by Jim S. That the Board begin negotiating with the Moody family to purchase at least the dome and the 16-inch telescope and determine how to transport it to the College. 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. The college was open to recognizing the Moody Family somewhere on the dome (or maybe wall). This negotiation process will take time. Importantly, it will help us determine how real the opportunity really might be. If price negotiations were finalized before the December strategic planning meeting, it would make the project one step closer to being real and might positively influence college funding. Motion approved by Board.

7. Closing Activities

Motion to adjourn meeting made by Rich H, second by Larry C. Meeting adjourned at 8:58pm

8:18 AM
11/13/18
Accrual Basis

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

	<u>Jan - Oct 18</u>	<u>Budget</u>	<u>\$ Over Budget</u>
Ordinary Income/Expense			
Income			
Loaner Scope Sales	75.00	0.00	75.00
Total Magazine Subscription	1,369.90	1,531.10	(161.20)
Membership Dues	3,450.00	3,685.00	(235.00)
Total Income	<u>4,894.90</u>	<u>5,216.10</u>	<u>(321.20)</u>
Cost of Goods Sold			
Total Magazine Subscriptions	1,444.75	1,531.10	(86.35)
Merchandise			
Inventory Adjustment	(69.35)	0.00	(69.35)
Merchandise - Other	208.67	45.00	163.67
Total Merchandise	<u>139.32</u>	<u>45.00</u>	<u>94.32</u>
Total COGS	<u>1,584.07</u>	<u>1,576.10</u>	<u>7.97</u>
Gross Profit	<u>3,310.83</u>	<u>3,640.00</u>	<u>(329.17)</u>
Expense			
1-Programs & Events	1,733.13	1,874.00	(140.87)
2-Newsletter	130.00	146.00	(16.00)
3-Library expense	248.40	250.00	(1.60)
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	644.31	1,394.00	(749.69)
Total Expense	<u>5,206.35</u>	<u>6,019.00</u>	<u>(812.65)</u>
Net Ordinary Income	<u>(1,895.52)</u>	<u>(2,379.00)</u>	<u>483.48</u>
Other Income/Expense			
Other Income			
Donations			
SLAS Club Members	35.00	0.00	35.00
Donations - Other	2,069.50	0.00	2,069.50
Total Donations	<u>2,104.50</u>	<u>0.00</u>	<u>2,104.50</u>
Interest Income	93.18	83.00	10.18
LTP Receipts	4,714.96	0.00	4,714.96
Proceeds from Lens Sales	1,803.29	0.00	1,803.29
Total Other Income	<u>8,715.93</u>	<u>83.00</u>	<u>8,632.93</u>
Other Expense			
LTP Disbursements	4,875.26	0.00	4,875.26
LTP Escrow Funding	500.00	500.00	0.00
Total Other Expense	<u>5,375.26</u>	<u>500.00</u>	<u>4,875.26</u>
Net Other Income	<u>3,340.67</u>	<u>(417.00)</u>	<u>3,757.67</u>
Net Income	<u>1,445.15</u>	<u>(2,796.00)</u>	<u>4,241.15</u>

**St. Louis Astronomical Society
Balance Sheet
As of October 31, 2018**

	<u>Dec 31, 17</u>	<u>Oct 31, 18</u>
ASSETS		
Current Assets		
Checking/Savings		
Checking - First Bank	5,162.74	7,189.38
Deposit, Certificate of	20,188.79	20,219.02
Library Telescope Escrow*	299.98	(23.61)
PayPal	563.55	401.79
Savings - First Bank	46,297.03	46,359.98
YMCA Trout Lodge Escrow	482.87	482.87
Total Checking/Savings	<u>72,994.96</u>	<u>74,629.43</u>
Other Current Assets		
Inventory Asset	511.28	371.96
Undeposited Funds	50.00	0.00
Total Other Current Assets	<u>561.28</u>	<u>371.96</u>
Total Current Assets	<u>73,556.24</u>	<u>75,001.39</u>
Total Fixed Assets	<u>0.00</u>	<u>0.00</u>
TOTAL ASSETS	<u>73,556.24</u>	<u>75,001.39</u>
LIABILITIES & EQUITY		
Equity		
Opening Bal Equity	8,137.66	8,137.66
Retained Earnings	54,813.50	65,418.58
Net Income	10,605.08	1,445.15
Total Equity	<u>73,556.24</u>	<u>75,001.39</u>
TOTAL LIABILITIES & EQUITY	<u>73,556.24</u>	<u>75,001.39</u>

* 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

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.

2018: Dec 6

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
October 17

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

12-7

Pattonville Observatory Public Viewing Dates

11-30, 12-7, 12-14, 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.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:

16 Fri
19 Mon
20 Tue
27 Tue

2 Sun
6 Thur
7 Fri
8 Sat
8 Sat
11 Tue
21 Fri

3 Thur
4 Fri
10 Thur
15 Tue
16 Wed
20 Thur

November

SLAS Regular Meeting
Central Library
Headquarters Library
Pathways Through Nature

December

SLAS Sky Orienteering
SLAS Board Meeting
SLSC Public Telescope Viewing
SLAS Dark Sky Observing
Stargazing at Jefferson College
Central Library Star Party
SLAS Regular Meeting

January

SLAS Board Meeting
SLSC Public Telescope Viewing
Eureka Library Program
Central Library
Jamestown Bluffs Library
Total Lunar Eclipse

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 Logo is also available at Infini-tees

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 @ \$32.95 / 1 year \$ _____

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

Astronomy @ \$29.95 / 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)	636-357-2763
treasurer at slasonline.org		
Hospitality	Larry Campbell	636-244-2867
hospitality at slasonline.org		
Board Members at Large:		
	Rich Heuermann	314-962-9231
Board19 at slasonline.org		
	Brent Buch	314-239-0329
Board21 at slasonline.org		
	Tom Nickelson	314-346-9565
Board22 at slasonline.org		
ALCOR	Bill Winningham	636-357-2763
(Astronomical League Correspondent) treasurer at slasonline.org		
MSRAL Rep.	Jim Small	314-909-7211
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 slasonline.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, Rhonda Whelan dialogsmoderator at yahoo.com		
Star Party Coordinator	Bill Breden	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

Devoted to the Interest and Advancement of the Science of Astronomy

ST. LOUIS ASTRONOMICAL SOCIETY

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

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Facebook: @stlastro

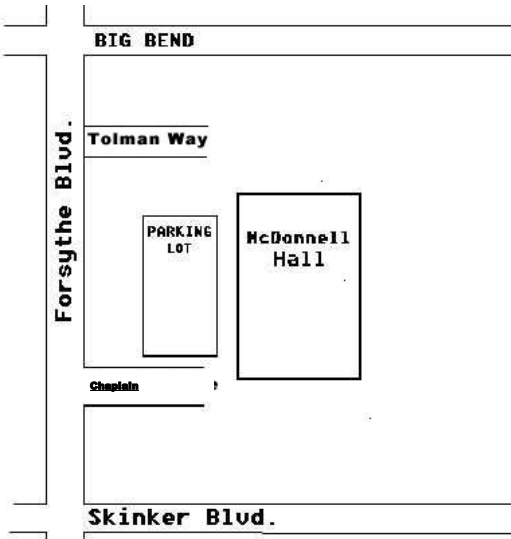


Who We Are and What We Do

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

