

THE EVENT HORIZON



ST. LOUIS ASTRONOMICAL SOCIETY

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

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Pluto and Beyond – Looking to New Horizons

by

**Dr. William B. McKinnon
Washington University**

Dr. William B. McKinnon will be featured at the November meeting of the St. Louis Astronomical Society. The meeting will begin at 7:30 PM Friday, November 17, in McDonnell Hall, Room 162, on the Washington University campus, Saint Louis, MO 63130.

When NASA's New Horizons spacecraft flew past Pluto on July 14, 2015, it provided the first detailed look at the distant ice world. Scientists had hoped for more than images of a cratered surface, but did not know what to expect. They were astounded at views of strange surface features – mountains of super-cold ice, glaciers of frozen nitrogen, landscapes of natural gas ice. Following the frenetic activity of the days of closest approach and recession, the New Horizons spacecraft

was placed into hibernation as it coasted outward. It is now heading for an even more distant and much smaller object. Dr. McKinnon will talk about the discoveries already made from the images and data of the Pluto fly-by and comment about its next target, the icy 2014 MU69.

Dr. McKinnon is a Professor of Earth and Planetary Sciences at Washington University. His research focuses on the ice worlds, including Pluto, that lie beyond the orbit of Neptune; icy satellites of the outer solar system; and the physics of impact cratering. Dr. McKinnon is a deputy scientist and co-investigator for the Geology, Geophysics, and Imaging Team of the New Horizons mission.

Upcoming Meetings:

December: Amy E Kimball, Radio Quasars & the VLA

Mid States Region



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Outreach Challenge

I am repeating the Outreach Challenge this year. Last year, laser pointers were given to the 20 SLAS member who completed at least 10 outreach events in 2016. This year, I will give a red astronomy flashlight to any SLAS member completing at least five registered outreach events by the end of December 2017, as listed in the Event Horizon.

I realize this isn't what motivates so many of you to volunteer. It's just a fun way to recognize it in a very small way.

There are still many outreach events remaining this year, so I think many of us can complete five events. - Bill Neubert

Presidents Corner

by

Jim Small

For the first time (but not the last!) we finally recognized members for their years of service. Because it was the first time we have completed this recognition, we had many members to recognize! See the list below for the years of service for members from 5-65 years! Many of you didn't make it to the last meeting, so if you are on the list but didn't make it to the last meeting, we are hoping you can make it to this one to receive your pin and certificate. You will also get to enjoy a great talk from Bill McKinnon on New Horizons and Pluto!

Join me in giving a hearty "Thank You" to Cook Feldman for all his service in outreach over the years! He is one of our best but is backing down from the furious outreach schedule he has kept up for a very long time with the St. Louis Astronomical Society. He will still be active, but not every night (it seemed like anyway) as he has in the past. It is our hope that some of you younger folk will step in to help fill in the gaps. Now is the perfect time to get involved in outreach, one of the most rewarding activities you can participate in! If you would like to

get more involved, but aren't sure how to go about it, take advantage at this month's meeting to get to know some people who are involved and find out from them how to go about it! There are also online resources available to help you work with the public, no matter what reservations you might have. And certainly, never hesitate to ask Cook for advice at a star party. Maybe set up early at the next First Friday event and help out. Thanks Cook!!!

The Astronomical Society of the Pacific is holding their annual meeting in early December at the Moonrise Hotel in the Delmar Loop. It will be a three day affair with plenty of talks and good astronomy education during the event. One of the events is a workshop for teachers to be held the in the morning on Saturday, December 9 after the conference. It is called "From Pinholes to the Hubble Space Telescope: How Telescopes Work" See the article elsewhere in the newsletter for more information.

Last, but not least, speaking of outreach, I met Peggy Walker at Springfield to pick up Tumbleweed, John Dobson's personal telescope that he used for years for outreach in San Francisco. It will be with our club over the winter and will accompany us to many star parties! Be sure to get a picture with her at the meeting this week!

Membership Recognition Day

The following members were recognized last meeting for their years of service. Everyone with at least 5 years received a pin and certificate as this is the first year of recognition. If you are on the list and you didn't pick up your pin and certificate last meeting, please come to the next meeting so you may be recognized!

Here is the list:

Years Name

65	Thane Bopp
65	Marlene Bopp
60	Bill Davis
60	Jim Melka
45	Wayne Clark
45	Nancy Clark
40	Lawrence Doepeke
40	Rich Heuermann
40	Mark Jones
35	Thomas Kuehling
35	James Timper

35	Carl Masthay	15	Karen Loethen	5	William Neubert
30	Gail Todd	15	Jerry Loethen	5	John King
30	Greg Rigelman	15	John Simmons	5	David Scrivner
30	Renee Mettle	15	John Newcomer	5	Benjamin
30	John Beaury	15	John Follis		Winningham
30	Dr. Henry Stratmann	15	Linda Follis	5	Richard Rogers
	Jr.	15	Michael Malolepszy	5	Tom Nickelson
30	Thomas Ryan	15	Rodney Rynearson	5	Loribeth Jarrell
30	Mark Fedde	10	Don Ficken	5	Bryan Siegfried
25	Cook Feldman	10	Bruce Boston	5	Gene Dultz, Jr.
25	Dr. Bruce Wilking	10	Grant Martin	5	Gaylene Engelbrecht
25	Allan Stewart	10	Colleen O'Toole	5	Dale Engelbrecht
25	Richie Brouk	10	Brian Mills	5	Frank Mack
25	Steve Sands	10	Richard Jennings	5	Andrew Kniffin
20	Jim Small	10	Greg Gaines	5	Joe Marcus
20	Lisa Holderle	10	Brad Griffith	5	Raymond Mueller
20	Paul Baldwin	10	Randy Gibbs	5	Charles Jeffreys
20	Rick Menendez	10	Phyllis Weber	5	Richard Fefferman
20	Marvin Fridley	10	Ann Trull	5	Alan Sapia
15	Brad Waller	10	Jim Trull	5	Doug Blum
15	Cathy Hooper	10	Ed Frey	5	Bill Biermann
15	Lee Halbeck	10	Tom Schloemann	5	Brent Buch
15	James Wells	10	Daniel Corso	5	Larry Campbell
15	Joe McHugh	10	John Duchek		
15	Rhonda Whelan	10	Jim Twellman		
15	Greg Ruppel	10	Rita Breeden		
15	Terry Nicklitsky	10	Bill Beeden		
15	Gary Mockli	10	Dan Howard		
15	Tom Keutzer	10	John Schwartz		
15	Jim Roe	5	Larry Evans		
15	Yvonne Roe	5	Gregg Baker		

To Volunteer or Not to Volunteer... *by* **Cook Feldman**

After a lengthy period of deliberation, I have come to the decision that I need to decrease the amount of my outreach activities in light of ongoing events and recent developments. While astronomy is my passion, it is time to try to streamline and simplify my life. I have reached my saturation level and to keep from burning out completely and totally walking away from our public programs I have opted for this course of action. Hopefully during this hiatus, I will be able to recharge my batteries.

Why have I reached the saturation point? Well over the course of the last 24+ years, I have contributed approximately 4,000 outreach hours spread across almost 2,000 public events. This excludes:

- Multiple terms as SLAS Treasurer
- MSRAL Convention Treasurer
- MSRAL Treasurer

- Advisor to both MSRAL and the League
- SLAS Coordinator for SLSC First Friday and Solar Saturday programs

In addition to these endeavors, let's not forget "Urban Guerrilla Astronomy", taking astronomy to the sidewalks in the spirit of John Dobson. Those travels have taken me to the sidewalks of University City – Delmar Loop, Central West End, Webster Groves – Old Orchard area and Kirkwood.

While I have enjoyed these activities, I am finding it difficult to keep up the pace. It is time to pass the baton to our younger members who, hopefully, will carry on the SLAS tradition of taking astronomy to the people. I will continue to coordinate the First Friday and Solar Saturday activities and support other joint programs between SLAS and the SLSC. I will also continue to support other endeavors that we are engaged in to the best of my abilities as long as I still feel the passion.

Cook



Top left: Peggy and Rick Walker restored Tumbleweed, John Dobson's telescope and delivered it in Springfield. **Left:** Tumbleweed visits Hubble in Marshfield **Top Right:** Sharon Bertram explains the Library Telescope program to Girl Scouts at the Shades of Green event. **Above Right:** Don Ficken assists Girl Scouts. (yes, that is a bear on the left... we were next to the MDR booth) **Above left:** Tumbleweed at the Arch. **Right:** Jim Small, Karen LaFever, two students and Kevin Koonz pose with Tumbleweed at the Parkway North event.

Assumption Summary – 2018 St. Louis Astronomical Society Annual Budget

Work began on the 2017 budget after the financial close for August 2017. The year to date information is therefore through August 31, 2017 with an estimated projection of activity from September 1, 2017 through December 31, 2017.

The budget information was assembled partially based on assumptions developed from the August 2017 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 2017 is based on:

Regular (Adult) Memberships	108 @ \$25.00/year	\$2,700
Youth Memberships	11 @ \$10.00/year	110
Family Memberships	29 @ \$40.00/year	1,160

As indicated in the budget, this will provide operating revenues in the total of \$3,970 for 2018. 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 2018 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.

Starting with 2015 the printing expenses for both the newsletter and brochures, along with the general administrative printing have been combined into a single item under operating expenses. This allows us to better track printing resources, since the functions utilize the same printing resources. The overall budget for printing expense remains the same as 2017 at \$1,370. This budget includes

the estimated cost of new hand out materials.

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 2017 because of our hosting telescope viewing at Kirkwood Park at least twice a year.

The Star-B-Que has been increased from \$175 to \$200 to account for the increased cost of meat. 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 three 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:

1. Building public awareness of the library telescope program (includes displays, business cards, handouts for libraries to use in publicity)
2. Recruiting/training more volunteers (quarterly training of volunteers – might include workshop materials and simple refreshments)
3. Extending the existing programs through a) solar telescopes and b) increased programming for both night and daytime applications
4. Keeping the telescopes in good working order including our trainers (libraries pay for major items, we cover small stuff)

The Library Telescope Committee requests \$500 for the Library Telescope Escrow to cover item 1-3 above. In addition, the Committee requests \$200 in operating expenses to cover item 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 2017 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 2018 speaker budget will be \$600, which includes expected travel expenses/honorariums for 3 to 4 speakers. In particular, the Board intends to provide modest stipends to graduate and post-graduate students who make presenta-

tions to SLAS. For 2018, we anticipate providing stipends to the following speakers:

- Michael Medford Discovering Planet 9 (10) Berkeley
- Mao Xiaochen The Dawn Mission: Vesta and Ceres Wash U
- Michael C Bouchard Mars 2020 Rover Wash U
- Eddie Schlafy Big Bang Berkeley

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.

Membership Initiatives, as in recent years, plans to hold raffle events during 2018 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 2018 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 2017 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 last year and an email address, recognition@slasonline.org was set up so that recommendations can be submitted to the committee. During 2016, the committee made name badges to help members identify and socialize with other members. Continuous membership pins and certificates will be awarded annually in the month of October for 5, 10, 15, 20, 25 and 30 or more years of continuous membership in SLAS. In the initial ceremony on 10/20/17, 92 pins were awarded and for 2018, we expect to award 22 more.

Merchandise:

A budget of \$45 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 2018 will be for the purpose of purchasing the latest CDs available for both Sky & Telescope and Astronomy Magazine and the RASC Handbook at an estimated cost of \$100. The remaining budget is for the purchase of books and materials of interest to the SLAS membership.

Loaner Scope Program:

We need cases to protect some of our telescopes. We have 2 Celestron 4 inch f9.8 refractors that need a protective soft case. We have two PST solar telescopes that are still in their original boxes and need a case. We also want to have three eyepiece kits to put together to allow members to

check out sets of eyepieces that we can use with telescope checkouts.

2 Refractor case	\$200
2 PST cases \$108	\$216
3 Eyepiece Cases @ \$40	<u>\$120</u>
	\$536
Repairs, etc	<u>\$64</u>
Total	\$600

SLAS also added four "Library Telescopes" to its inventory for the exclusive use of SLAS members during 2015. These scopes are available for checkout at the monthly general meeting. Vice President Bradley Waller is in charge of checking out the "Library Telescopes" to members.

SLAS Brochures:

Brochure printing expense was been combined with the newsletter printing expense starting with the 2015. The brochures contain information about the Society that is distributed to the general public at all outreach events. There are plans to revise and modernize the SLAS brochure for 2018. Brochure paper requirements are estimated at 15 reams of "astro-bright" premium paper at a cost of \$150. In addition to the brochures, the Board is in the process of developing new alternative handouts for star parties and other events, such a business card style and/or "quarter card" style handouts that will provide key information about SLAS, including information on SLAS's social media sites and on how to join SLAS.

Summary:

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 sport 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.

If you have questions about the amounts presented in this budget, please direct them to the individual committee chairs. They will be the best source to address these questions.

Respectfully,
Bill Winningham, Treasurer

ST. LOUIS ASTRONOMICAL SOCIETY PRELIMINARY OPERATING BUDGET - 2018								
	Actual	Budget	Projection		Budget			
	Year to Date	Year to Date	Sept-17 to	Year to date	Annual	Annual	Annual	Annual
	Aug-17	Aug-17	Dec-17	Dec-17	2015	2016	2017	2018
Income								
Magazine Subscription								
Total Magazine Subscription	\$ 1,172.64	\$ 539.15	\$ 833.20	\$ 2,517.18	\$ 2,034.10	\$ 1,734.40	\$ 952.50	\$ 1,338.90
Membership Dues	\$ 2,955.00	\$ 1,895.00	\$ 1,545.00	\$ 4,500.00	\$ 3,440.00	\$ 3,725.00	\$ 3,600.00	\$ 3,970.00
Merchandise Sales		-	-		-	-	-	-
Total Income	\$ 4,127.64	\$ 2,434.15	\$ 2,378.20	\$ 7,017.18	\$ 5,474.10	\$ 5,459.40	\$ 4,552.50	\$ 5,308.90
Cost of Goods Sold								
Total Magazine Subscriptions	\$ 1,111.25	\$ 539.15	\$ 1,494.95	\$ 2,606.20	\$ 2,034.10	\$ 1,734.40	\$ 952.50	\$ 1,338.90
Merchandise	-	45.00						
Total Cost of Goods Sold	\$ 1,111.25	\$ 584.15	\$ 1,494.95	\$ 2,606.20	\$ 2,034.10	\$ 1,734.40	\$ 952.50	\$ 1,338.90
Gross Profit	\$ 3,016.39	\$ 1,850.00	\$ 883.25	\$ 4,410.98	\$ 3,440.00	\$ 3,725.00	\$ 3,600.00	\$ 3,970.00
Operating Expense								
Programs & Events								
Home Made Fest	100.00	100.00	-	100.00	100.00	100.00	100.00	100.00
Star BBQ Expense	-	175.00	-	-	175.00	175.00	175.00	200.00
Library Scope Program Escrow	-	200.00	-	-	600.00	200.00	200.00	200.00
Astronomy Day/Outreach	247.90	-	300.00				547.90	*
Eclipse Workshop Dues	-	-	-	-	200.00	200.00		
2017 Eclipse Committee	-				200.00	-	-	-
Meeting Expenses								
Meeting Refreshments	108.12	232.00	60.00	168.12	450.00	350.00	350.00	350.00
Meeting Speaker Fees	661.72	630.00	-	661.72	250.00	250.00	800.00	600.00
Total Meeting Expenses	\$ 769.84	\$ 862.00	\$ 60.00	\$ 829.84	\$ 700.00	\$ 600.00	\$ 950.00	\$ 950.00
Membership Initiatives (excludes "profits")	\$ 69.42	\$ 134.00	130.58	\$ 200.00	\$ 200.00	\$ 200.00	\$ 200.00	\$ 200.00
Merchandise				-	\$ 120.00	45.00	45.00	45.00
Membership Recognition	151.18	220.00	148.82	300.00	200.00	260.00	300.00	300.00
Programs & Events	\$ 1,338.34	\$ 1,691.00	\$ 639.40	\$ 1,429.84	\$ 2,495.00	\$ 1,780.00	\$ 2,270.00	\$ 1,995.00
Newsletter Postage	\$ 120.83	\$ 116.00	\$ 20.00	\$ 140.83	\$ 180.00	\$ 200.00	\$ 175.00	\$ 175.00
Total Newsletter	\$ 120.83	\$ 116.00	\$ 20.00	\$ 140.83	\$ 180.00	\$ 200.00	\$ 175.00	\$ 175.00
Library expense	\$ 49.95	\$ 200.00	\$ 100.00	\$ 149.95	\$ 300.00	\$ 100.00	\$ 300.00	\$ 300.00
Astronomical League Dues	740.00	670.00	-	740.00	650.00	695.00	670.00	760.00
Loaner Scopes	5.00	50.00	-	5.00	200.00	50.00	50.00	600.00
Insurance	825.50	380.00	-	825.50	380.00	380.00	380.00	825.00
Website	179.40	170.00	-	179.40	135.00	150.00	170.00	170.00
Administrative Expenses								
Corporate Filings	-	-	-	-	-	20.00	-	20.00
Office Supplies	43.35	75.00	6.00	49.35	165.00	165.00	100.00	100.00
Banking Fees	22.55	25.00	-	22.55			25.00	25.00
PayPal Fees	21.46	26.00	10.00	31.46	40.00	40.00	40.00	40.00
Postage	49.00	60.00	35.00	84.00	75.00	90.00	90.00	90.00
Printing / Copying Expense (combined 2015)	157.15	913.00	250.00	407.15	888.00	1,115.00	1,370.00	1,370.00
Administrative Expenses	\$ 293.51	\$ 1,099.00	\$ 301.00	\$ 594.51	\$ 1,168.00	\$ 1,430.00	\$ 1,625.00	\$ 1,645.00
Total Operating Expense	\$ 3,552.53	\$ 4,376.00	\$ 1,060.40	\$ 4,065.03	\$ 5,508.00	\$ 4,785.00	\$ 5,640.00	\$ 6,470.00
Net Income/(Loss) From Operations	\$ (536.14)	\$ (2,526.00)	\$ (177.15)	\$ 345.95	\$ (2,068.00)	\$ (1,060.00)	\$ (2,040.00)	\$ (2,500.00)
Other Income / Expense								
Other Income								
Donations								
SLAS Club Members	-			-	-	-	-	-
Donations - Other	1,450.00		325.00	1,775.00	-	-	-	-
Total Donations	\$ 1,450.00		\$ 325.00	\$ 1,775.00	\$ -	\$ -	\$ -	\$ -
Interest Income	\$ 30.00	\$ 66.67	\$ 10.00	\$ 40.00	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00
Non-Operating Income (Astro Mag Award)								
Total Other Income	\$ 1,480.00	\$ 66.67	\$ 660.00	\$ 1,815.00	\$ 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	\$ 1,500.00
LTP Escrow Funding	\$ 1,000.00	\$ 1,000.00				\$ 1,000.00	1,000.00	1,000.00
Total Other Expense	\$ 2,500.00	\$ 2,500.00	\$ -	\$ -	\$ -	\$ 1,800.00	\$ 2,000.00	\$ 2,500.00
Net Other Income / (Expense)	\$ (1,020.00)	\$ (2,433.33)	\$ 660.00	\$ 1,815.00	\$ 100.00	\$ (1,700.00)	\$ (1,900.00)	\$ (2,400.00)
Net Income / (Loss)**	\$ (1,556.14)	\$ (4,959.33)	\$ 482.85	\$ 2,160.95	\$ (1,968.00)	\$ (2,760.00)	\$ (3,940.00)	\$ (4,900.00)

ST. LOUIS ASTRONOMICAL SOCIETY PRELIMINARY OPERATING BUDGET - 2018								
	Actual	Budget	Projection		Budget			
	Year to Date	Year to Date	Sept-17 to	Year to date	Annual	Annual	Annual	Annual
	Aug-17	Aug-17	Dec-17	Dec-17	2015	2016	2017	2018
Required versus Discretionary Spending								
Gross Profit	\$ 3,016.39	\$ 1,850.00	\$ 883.25	\$ 4,410.98	\$ 3,440.00	\$ 3,725.00	\$ 3,700.00	\$ 4,070.00
Required Expenses								
Newsletter Postage	\$ 120.83	\$ 116.00	\$ 20.00	\$ 140.83	\$ 180.00	\$ 200.00	\$ 175.00	\$ 175.00
Astronomical League Dues	740.00	670.00	-	740.00	650.00	695.00	670.00	760.00
Insurance	825.50	380.00	-	825.50	380.00	380.00	380.00	825.00
Website	179.40	170.00	-	179.40	135.00	150.00	170.00	170.00
Corporate Filings	-	-	-	-	-	20.00	-	20.00
Office Supplies	43.35	75.00	6.00	49.35	165.00	165.00	100.00	100.00
Banking Fees	22.55	25.00	-	22.55	-	-	25.00	25.00
PayPal Fees	21.46	26.00	10.00	31.46	40.00	40.00	40.00	40.00
Postage	49.00	60.00	35.00	-	75.00	90.00	90.00	90.00
Printing / Copying Expense	157.15	913.00	250.00	407.15	888.00	1,115.00	1,370.00	1,370.00
	\$ 2,159.24	\$ 2,435.00	\$ 321.00	\$ 2,396.24	\$ 2,513.00	\$ 2,855.00	\$ 3,020.00	\$ 3,575.00
Balance for Discretionary Items	\$ 857.15	\$ (585.00)	\$ 562.25	\$ 2,014.74	\$ 927.00	\$ 870.00	\$ 680.00	\$ 495.00
Discretionary Spending								
Home Made Fest	100.00	100.00	-	100.00	100.00	100.00	100.00	100.00
Meeting Refreshments	108.12	232.00	60.00	168.12	450.00	350.00	350.00	350.00
Meeting Speaker Fees	661.72	630.00	-	661.72	250.00	250.00	600.00	600.00
Membership Initiatives (excludes "profits")	69.42	134.00	130.58	200.00	200.00	200.00	200.00	400.00
Merchandise	-	-	-	-	120.00	45.00	45.00	45.00
Membership Recognition	151.18	220.00	148.82	300.00	200.00	260.00	300.00	300.00
Astronomy Day/Outreach	-	-	-	-	-	-	300.00	-
Star BBQ Expense	-	175.00	200.00	200.00	175.00	175.00	175.00	200.00
Library expense	49.95	200.00	100.00	149.95	300.00	100.00	300.00	300.00
Loaner Scopes	5.00	50.00	-	5.00	200.00	50.00	50.00	600.00
Library Scope Program Expense	-	200.00	-	-	600.00	200.00	200.00	200.00
Eclipse Workshop Dues	-	-	-	-	200.00	200.00	-	-
2017 Eclipse Committee	-	-	-	-	200.00	-	-	-
	\$ 1,145.39	\$ 1,941.00	\$ 639.40	\$ 1,784.79	\$ 2,995.00	\$ 1,930.00	\$ 2,620.00	\$ 3,095.00
Net Income(Loss) From Operations	\$ (288.24)	\$ (2,526.00)	\$ (77.15)	\$ 229.95	\$ (2,068.00)	\$ (1,060.00)	\$ (1,940.00)	\$ (2,600.00)
Other Expense								
2017 Eclipse Escrow Funding						\$ 800.00	\$ 1,000.00	N/A
Library Telescope Program Escrow Funding						1,000.00	1,000.00	500.00
Total Other Expense					N/A	\$ 1,800.00	\$ 2,000.00	\$ 500.00
Actual Historical Net Income for prior years								
				\$ 2,243.34	\$ 368.42	\$ 30,000.32		
				(2014)	(2015)	(2016)		
* Includes separately voted funds for ISDC								
** For purposes of the budget analysis, the LTP Escrow and 2017 Eclipse Escrow other income and other expense year to date have been excluded.								

Telescope Giveaway Program for Educators

If you are an educator and would like **24 FREE telescopes for your school**, I encourage you to attend a workshop by the Astronomy Society of the Pacific that is entitled "From Pinholes to the Hubble Space Telescope: How Telescopes Work". The workshop will be held on Saturday, December 9th from 8:30 am – 12:30 pm at the Challenger Learning Center. Cost of the program is just \$10.00 and includes a mini-kit of materials. Space is limited to 24 participants. This workshop is a natural extension of our eclipse project because it teaches how light works.

For those unfamiliar with the Galileoscope Telescope, you can learn more about the telescope at this link: <http://galileoscope.org>. The current price of six-pack of Galileoscopes is \$150.00 which translates to around a \$600.00 giveaway to each workshop attendee.

Attached is a flyer with more details on the workshop or you can visit this link: <https://myasp.astronomy.org/asp-events/pinholes-to-hubble.php>

Solar Glasses for Kids Recycle Program

by
Don Ficken

I am pleased to report that our "Solar Glasses for Kids Collection Program" collected 33,500 ISO certified solar eclipse glasses. More than 20 volunteers sorted/packed the glasses for shipment to Arkansas as part of a nationwide program by Astronomers Without Borders (www.astronomerswithoutborders.org) to provide free glasses to school children for the 2019 and 2020 total solar eclipses.

I thought you might enjoy photos of our workdays on October 6th and 8th at St. Louis County Library: <https://flic.kr/s/aHsm5P1tCm>.

Many thanks to St. Louis County Library for providing us free space, to the many organizations that collected the glasses and the 20+ volunteers who spent long hours sorting/packing the glasses.

SLAS Executive Board Meeting Minutes October 5, 2017

1. Opening Activities: Attending: Jim Small, Larry Campbell, Brad Waller, Mark Jones, Tom Nickelson, Rich Heuermann, Bill Winningham Meeting called to order: 703pm Sep meeting minutes distributed before the meeting Tom N. made motion to accept the minutes, seconded by Jim S. Minutes approved

2. External Business Next board meeting: Nov 9, Dec 7 **SLSC:** Pleiades Conference (National Group of Planetarium Operators) held next week at Science Center. SLAS will host star party for Wed, Oct 11th. Crowd will have lots of planetarium operators! (200-300)

3. Director Reports:

President – Jim Small: Homemade Fest has been set for February 17, 2018, at Kirkwood Community Center

Vice President – Bradley Waller: SLAS Mug photo CONTEST of the Eclipse will be conducted (Voting) at SLAS' October Meeting. All entries are due by the October meeting. Jim S. will send Brad info on his 2 contacts from Astronomy Conference. Brad wants RSAC Handbook for attendance prizes. Larry purchased 4 Laser Pointers at the Board Meeting for Brad. These will be given away as Attendance Prizes.

Presentations for 2017

20-Oct-2017	Henric Krawczynski, PhD	"Multi Messenger Observations of the Neutron Star Merger GW170817"	Wash U
17-Nov-2017	William McKinnon, PhD	"Pluto in the Rear View Mirror and Kuiper Belt Object MU69 Dead Head"	Wash U
15-Dec-2017	Amy E Kimball	"Radio Quasars & the VLA" (1) NRAO	

Presentations for 2018

19-Jan-2018	Carl Bender, PhD	"Black Holes and Hawking Radiation"	Wash U
16-Feb-2018	Ryan Ogliore, PhD	"From Stardust to the Solar System"	Wash U
16-Mar-2018	Michael Medford	"Discovering Planet 9 (10)" (1)	Berkeley
20-Apr-2018	Kun Wang, PhD	"New Evidence for the Origin of the Moon"	Wash U
18-May-2018	Ryan Clegg-Watkins, PhD	"Exploring the Moon from Orbit: Paving the Way for Future Astronaut Explorers"	WU
20-Jul-2018	Erika Gibb, PhD	Comets	UMSL
21-Sep-2018	Francesc Ferrer, PhD	"In the wake of the Higgs, what will the next breakthrough at the LHC?"	Wash U
19-Oct-2018	Mao Xiaochen	"The Dawn Mission: Vesta and Ceres"	Wash U
16-Nov-2018	Michael C Bouchard	"Mars 2020 Rover"	Wash U
21 Dec-2018	Pamela Gay, PhD	"Super Secret Squirrel Stuff...Again J"	SIU-E (1) Skype Event

Astro 101: In place of A101, A Member recognition ceremony will be held. Welcome Aboard Meeting: New members meeting still planned for each month.

Secretary – Mark Jones No report

Treasurer/ALCor – Bill Winningham: Bill working on closing out the Eclipse Expo accounting. AL dues have been paid for the year. Eclipse Escrow will have a surplus about \$1500 that will revert back to SLAS. Next 2018 budget meeting will be Oct 22nd at Young's 4-6. Bill W requested Jim S send guy who donated homemade scope a donation letter

Hospitality – Larry Campbell October SLAS meeting will be in Wilson Hall, big lecture hall. We will not transport Hospitality cart and library from McDonnell Hall. Larry will get food from Panera. No nametags. Need signage to direct people to Wilson Hall. Larry needs spreadsheet. **Membership recognition** – In place of A101. October will be member recognition ceremony.

Board member at large reports

Brent Buch (2018) No report

Rich Heuermann (2019) Glasses have been collected today. Need more volunteers Saturday 0930-. Rich needs to work on AAS grant report

Tom Nickelson (2020) Need to move loaner scope shed

4. Committee Reports: If needed

Library Telescope Program: Jim S. presenting a poster of the Library Telescope Program at the Planetarium Conference.

Membership – Don Ficken report sent prior to meeting. Our member count is **180 members** which is the highest number since 2008. Compared to last year, we added more members and had few members leave us. What can we do to retain our new base? The Board discussed possible initiatives. Maybe we need an "In-reach" program to complement our very successful "Out-reach" program. Give people credit for volunteer hours spent with in-reach. Setup events in NSN, track RSVP and attendance. 1. SLAS objectives for retaining members - *Inspire, Educate, and Connect* 2. Develop constant contact and Mentoring, more frequent follow up with new members, personal emails, establish personal connections. 3. Develop group contacts and SIG mailing lists to put people in contact with common interests. Every member new or old should belong to one or more of these lists. Lists would be set up in NSN. Publicize FB and social media more. 4. Provide activities, information and resources aligned with their interests. Put survey responses and other requests. Into action 5. Request more feedback from members to Board. Set up special mailboxes for members to send specific emails. Examine our current email structure and find ways to make it more efficient. Have a new member mailbox where new members can get fast responses. Setup automated surveys and polls 6. Make new member meetings more official Put them on NSN calendar as separate events from SLAS meetings, even if held the same night. Setup RSVPs and tracking in NSN. Send out alerts.

Merchandise – Infini-tees shirts for sale - \$20,

Newsletter – Articles and pictures (especially pictures) are welcome to beef up the newsletter and our social media outlets. Please forward to newsletter@slasonline.org Discussion about redesign of brochure and what to do with them. (content, replace with cards, supplement with cards, reduce to front and back handout, etc.)

Website

5:27 PM
11/09/17
Accrual Basis

**St. Louis Astronomical Society
Profit & Loss Budget vs. Actual
January through October 2017**

	Jan - Oct 17	Budget	\$ Over Budget
Ordinary Income/Expense			
Income			
Total Magazine Subscription	1,531.19	733.85	797.34
Membership Dues	3,685.00	2,430.00	1,255.00
Total Income	5,216.19	3,163.85	2,052.34
Cost of Goods Sold			
Total Magazine Subscriptions	1,461.70	733.85	727.85
Merchandise		45.00	(45.00)
Total COGS	1,461.70	778.85	682.85
Gross Profit	3,754.49	2,385.00	1,369.49
Expense			
1-Programs & Events ^{2,4}	1,853.89	2,012.00	(158.11)
2-Newsletter	120.83	145.00	(24.17)
3-Library expense ¹	49.95	250.00	(200.05)
4-Astronomical League Dues	740.00	670.00	70.00
5-Loaner Scopes	5.00	50.00	(45.00)
7-Insurance	825.50	380.00	445.50
8-Website	179.40	170.00	9.40
Total 9-Administrative Expenses	462.85	1,374.00	(911.15)
Total Expense	4,237.42	5,051.00	(813.58)
Net Ordinary Income	(482.93)	(2,666.00)	2,183.07
Other Income/Expense			
Other Income			
Donations	2,050.00	0.00	2,050.00
Eclipse Escrow Receipts	18,559.24	0.00	18,559.24
Interest Income	45.92	83.34	(37.42)
LTP Receipts ⁵	8,359.84	0.00	8,359.84
Proceeds from Lens Sales	16,518.81	0.00	16,518.81
Total Other Income	45,533.81	83.34	45,450.47
Other Expense			
Eclipse Escrow Disbursements	22,673.47	0.00	22,673.47
Eclipse Escrow Funding ³	1,500.00	1,500.00	0.00
LTP Disbursements ⁵	8,618.89	0.00	8,618.89
LTP Escrow Funding	1,000.00	1,000.00	0.00
Total Other Expense	33,792.36	2,500.00	31,292.36
Net Other Income	11,741.45	(2,416.66)	14,158.11
Net Income	11,258.52	(5,082.66)	16,341.18

1 Reflects expanded insurance coverage over prior years

2 Outreach budget reflects \$150 approved by membership vote as a donation towards the International Space Development Conference.

3 Includes \$500 in St. Louis County Library donations associated with Eclipse related events.

4 Speaker fees include an additional \$200 as voted on by Club Membership (for the August Speaker)

5 Reflects \$5,000 grant from the American Astronomical Society, the grant funds have been spent in accordance with the grant proposal

**St. Louis Astronomical Society
Balance Sheet
As of October 31, 2017**

	Dec 31, 16	Oct 31, 17
ASSETS		
Current Assets		
Checking/Savings		
Checking - First Bank	3,957.19	3,169.59
Deposit, Certificate of	20,148.49	20,178.63
Library Telescope Escrow	799.33	349.76
PayPal	126.42	101.59
Savings - First Bank	29,755.97	46,290.56
SLAS Eclipse Conference Escrow*	6,259.97	2,250.76
YMCA Trout Lodge Escrow	542.87	482.87
Total Checking/Savings	61,590.24	72,823.76
Other Current Assets		
Inventory Asset	1,360.92	1,360.92
Undeposited Funds	0.00	25.00
Total Other Current Assets	1,360.92	1,385.92
Total Current Assets	62,951.16	74,209.68
Total Fixed Assets	0.00	0.00
TOTAL ASSETS	62,951.16	74,209.68
LIABILITIES & EQUITY		
Equity		
Opening Bal Equity	8,137.66	8,137.66
Retained Earnings	24,813.26	54,813.50
Net Income	30,000.24	11,258.52
Total Equity	62,951.16	74,209.68
TOTAL LIABILITIES & EQUITY	62,951.16	74,209.68

* Any excess Eclipse Escrow funds will revert to SLAS in 2017 after all accounts are settled.

(Continued from page 8)

Social Networking – Michelle B sent report before meeting. The Facebook page is doing well. We have 85 followers as of today, and should hit 100 by the end of the year. Homemade videos are really popular, no matter what the topic. Eclipse pictures are still by far the most popular post we've had since the beginning--they were viewed by 259 people. The second most popular was "The Climber and the Eclipse," which was an APOD picture, and that got 251. Facebook tracks the newbies, so when new visitors stop on our page and "like" something we've posted, it lets us know. We get anywhere from three to eight new "likes" every week, and that's been pretty consistent since the beginning. We've gotten attention literally from the east coast to west coast in the U.S., and now we have reached 24 people in the United Kingdom. I have continued to post SLAS events up to four weeks out, and I've been trying to really push the First Friday events since we get a lot of traffic to the page and a lot of attention for SLAS just from that one event. Please ask members to send in pictures from star parties, especially of families and kids. They always come back to the page to see pictures of themselves posted. That's potential membership.

Loaner Scopes. Tom N has volunteered his truck to move shed

Publicity – Rich H. Release will go out next week

Star Parties: See separate report

5. Old Business None

6. New Business See above

7. Closing Activities Brad W made motion to adjourn meeting, second by Rich H. meeting adjourned at 845pm

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 the Edward Jones YMCA* All meetings are on Thursdays unless noted.

2017: Dec 7

Dark Sky Observing Dates

See you when it gets warmer!! Use SlasDialogs or Facebook to coordinate winter events!

Francis Park Events: These events are on **Wednesdays the week nearest the first quarter Moon** October 25

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!

2017-12-10 5:30 PM

SLSC Public Telescope Viewing Events: These events are held the first Friday of the month Planetarium shows start at 7pm
12-1, 1-5, 2-2

YMCA Edward Jones Star Parties (generally third Mondays)
Finished for the year

Pattonville Observatory Public Viewing Dates
12-1, 12-8

Broemmelsiek Astronomy Park Public Viewing
Every Friday night with ASEM members

UMSL Observatory
For directions and map
<http://www.umsi.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

November

17 Fri
18 Sat
30 Thur
30 Thur

SLAS Regular Meeting
SLAS Dark Sky Observing
Machacek Library Star Party
Soulard School Stargazing

December

1 Fri
5 Tue
7 Thur
7 Thur
7 Thur
10 Sun
12 Tue
13 Wed
15 Fri

SLSC Public Telescope Viewing
Oak Bend Telescope
Confidence and Curiosity
Wren Hollow Star Party
SLAS Board Meeting
SLAS Sky Orienteering Event
McKelvey STEM
Daniel Boone Library Telescope
SLAS Regular Meeting

2018 !!!

January

5 Fri
24 Wed
29 Mon
30 Tue

SLSC Public Telescope Viewing
SLPL Star Party—Central
Grants View Library
Lewis and Clark Library

February

1 Thurs
2 Fri
17 Sat
21 Wed
23 Fri
27 Tue
28 Wed

North Glendale E School
SLSC Public Telescope Viewing
Homemade Fest!
SLPL Star Party - Central
Armstrong Elementary
SLPL Star Party - Machacek
Brentwood Star Party

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

Delmar: 6662C Delmar Blvd St. Louis, MO 63130 Telephone: 314.863.2695

delmar@headznthreadz.com

Delmar Map

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 _____

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

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

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

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

Treasurer *Bill Winningham, (Don Ficken - membership)*
treasurer at slasonline.org 636-225-0269

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
Board18 at slasonline.org

Tom Nickelson 314-346-9565
board17 at slasonline.org

ALCOR *Bill Winningham* 636-225-0269
(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*
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publicity at slasonline.org

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

Social Media *Michelle Birch* 636-373-1102
social at slasonline.org

'SLASdialogs' Moderator *Mark Jones, Rhonda Whelan*
dialogsmoderator at yahoo.com

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

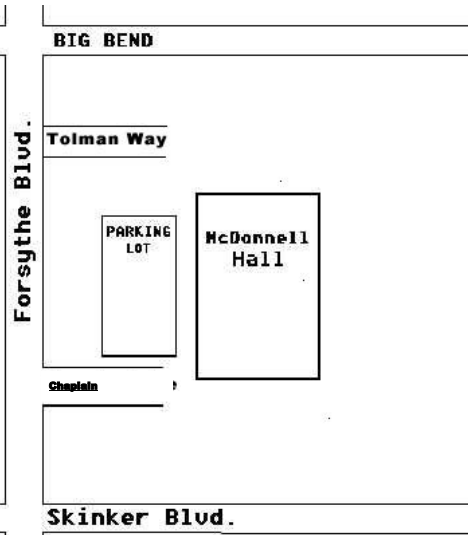


Who We Are and What We Do

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