

THE EVENT HORIZON



ST. LOUIS ASTRONOMICAL SOCIETY

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

**VOLUME 24, Issue 12
December, 2014**

When Worlds Aligned: October's Eclipses

A presentation by astrophotographers about the solar eclipse and lunar eclipse of last October, will be featured at the December meeting of the Saint Louis Astronomical Society. The meeting will begin at 7:30 pm Friday, December 19, in McDonnell Hall, Room 162, at Washington U.

The Moon orbits the Earth in almost the same plane as the Earth orbits the Sun. The “almost” means that Earth, Moon, and Sun usually do not line up exactly twice per month – the Moon is usually above or below the Earth-Sun line. Only twice a year is the alignment close enough that eclipses can occur. This year, one of those times occurred on October 8, when the full Moon moved into the Earth’s shadow, causing a total lunar eclipse. Then, on October 23, the new Moon moved between the Earth and the Sun, but the alignment was not exact. A partial solar eclipse resulted.

Members of the Saint Louis Astronomical Society will display pictures taken during these eclipses. They will explain what techniques were used to obtain their images. Observing solar eclipses safely requires special equipment and knowledge, since the Sun is being viewed directly. Instant and permanent eye damage results from even a quick look at the Sun through binoculars or a telescope, unless the proper equipment and safety precautions are employed. Consequently, photographing solar eclipses requires care and caution. Lunar eclipses are safely viewed with no equipment. However, skill is required to manage the brightness contrasts among eclipsed portions of the Moon, uneclipsed portions, and the night sky, in order to obtain good images.

Next Month: 2015 Astro Events and the Future of Space Exploration and Telescopes by Mark Jones and Paul Baldwin

Library Telescope Program On a Roll! Come Volunteer!

The Library Telescope program is in full swing. So far, there have been 15 check-outs from St. Louis Public Library with 52 on the waiting list (last week) and 25 check-outs from St. Louis County Library with 113 on the waiting list. We don’t have numbers from Kirkwood, University City or YMCA yet. We have held a number of star party/training programs for the libraries to help patrons learn how to use the telescope and to give them a chance to try it out. These events have been successful and it is an excellent opportunity to introduce both trainees and trainers to the program.

We have a number of programs lined up for the libraries in addition to our usual events for schools, etc. Be sure to check the NSN calendar and sign up for these events as a volunteer. We especially want people who are new to star parties to sign up for these training sessions. They are perfect events to gain experience in working a star party and helping to run a program. In that light, we have also reserved a room for a **Volunteer Training Session** for **Thursday, January 29th, 7:00 pm – 8:30 pm** at the

St. Louis Public Library – Schlafly Branch
225 North Euclid Avenue, St. Louis, MO 63108
(314) 367-4120

This event is especially designed to train volunteers interested in helping with star parties to help run the program for the Libraries. No experience or equipment is required. RSVP on NSN. For more info, contact:

Don Ficken:
Library Telescope Program, Project Coordinator
Saint Louis Astronomical Society
donaadficken@sbcglobal.net
Cell: (314) 550-7191

Mid States Region



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President's Corner

by Jim Small

We need bodies. Fresh ones. We have 150+ members and only about 20-25 are involved with star parties and other outreach. With the library telescope program booming, we will need many volunteers. This is an amazing opportunity if you've been wanting to get involved, but didn't know where to start. Library events are very rewarding as you will be working with people that signed up specifically to learn how to use the telescopes. If you volunteer, then you will also learn how to use the telescopes.

If you've never attended or worked a star party before, the event on January 29 is the one for you! (see page 1) Don Ficken and others will lead you through the Library Telescope program, train you how to use the telescope, then train you how to teach others to use the telescope. It will be the perfect introduction to star party volunteering! We hope to see you there!

Due to personal conflicts, Grant Martin will be stepping down from Hospitality effective December 31st. He will set up for the December meeting and we will need a replacement for his services for the January meeting. Nominations will be accepted at the December meeting and voted on at the January meeting.

Recognition for the Library Telescope Program continues to increase. Orion Telescopes placed a nice article along with the group photo for our build party on October 4 in their catalog for Christmas! It's on page 53 in the catalog and can be viewed either online at <http://www.telescope.com/content.jsp?pageName=eCatalog> or

Get your Great American Eclipse Bumper Sticker for the 2017 Eclipse!

Michael Zeiler, the webmaster of GreatAmerican-Eclipse.com has many interesting maps and eclipse items for sale on his website. Michael just announced the creation of a magnetic bumper sticker for the 2017 eclipse. The sample image is below. Michael is taking pre-orders now, minimum quantity of 50. Estimated cost is \$1 each plus shipping. Once printed, Michael will probably sell individual pieces for \$5 plus shipping. Anyone interested combining an order should contact Mark Jones and let him know how many you would order. Assume \$2 each once shipping is factored in. Each magnet is 10"x3"



by looking through the copy you got in the mail! I was also interviewed for the St. Louis Post Dispatch but I don't know when the article will run.

Homemade Fest is set for February 21st at the Kirkwood Community Center. Remember, it's not just for stuff you built, you can do a presentation on anything astronomy related! A technique, a good explanation for a common concept, a new piece of equipment, an old piece of equipment, whatever you would like to share! Bring a dish and join us from 5-10 on Saturday, February 21st.

SLAS merchandise is now set up and available at Heads and Threadz at the west end of the Delmar Loop. They also have a store in the Galleria. Simply take any article you would like to have embroidered to the store and they will fix you up! Embroidery is \$10/item. Our logo has been set up at the store and you may choose different colors for various parts. See the ad on the events page for details about locations.

Beginning in January, there will be a lot of star parties, so please check night sky network and see if you can volunteer for them. If you have not volunteered for a star party before and you would like some help, be sure to sign up for the training session on January 29 or contact me or anyone else whose contact information is on the back page of the newsletter for help.

MSRAL will be held at University of Arkansas - Little Rock on May 29-31, 2015. Be sure to place it on your calendar and watch for details!

2015 is going to be a breakout year for SLAS. We might set a club record for events and people in outreach programs. Be sure to get trained and get involved! We will see you at the next event!



Homemade Fest 2015

Saturday, February 20, 2015 at Kirkwood Community Center

Join fellow SLAS members for our annual winter pot-luck dinner meeting. Doors open at 5pm to unload equipment and food and set up the room. We will begin eating at 6pm.

Formal Opening and presentation begin at 6:45pm. This is a show-and-tell meeting. Members are encouraged to present anything of astronomical interest they have bought, built, refurbished, improved or just can't do without. You can present your favorite image or explanation of a concept as well. This is your chance to share with your fellow SLAS members. SLAS will provide the soda, coffee and paper goods. So bring a favorite dish or dessert to share and let's enjoy each other's company and love for Astronomy on this long winter's night.

Attendance prizes will be drawn throughout the evening

If you have questions or wish to present, please contact Mark Jones for more information. This event is free to all SLAS members and their families. RSVP on SLAS Night Sky Network is optional but encouraged.



**Oct 23rd 2014 a Successful Trial-Run to 2017
by Mark Jones**

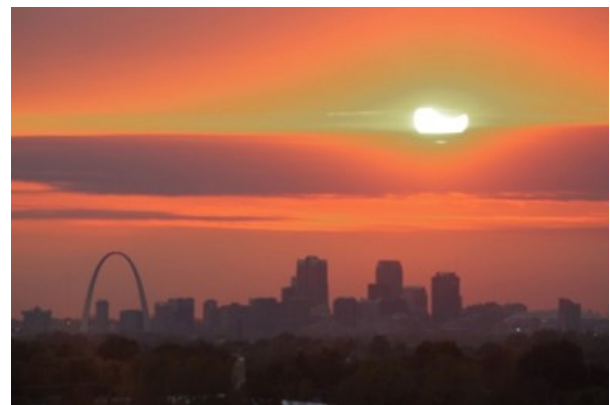
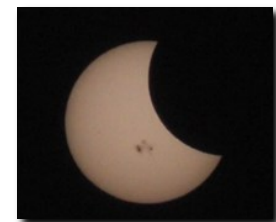
Late afternoon on October 23rd our Moon eclipsed the setting Sun. This is the last solar eclipse before the 2017 “Great American Eclipse” (<http://www.greatamericaneclipse.com/>). SLAS made modest preparations leading up to the eclipse. Many SLAS members planned their own viewing and select sites with good views of the setting Sun. SLAS contacted Cahokia State Park and received permission to view at the top of Monk’s Mound. This location provided good western horizon with a view of the St. Louis skyline in the foreground. One month prior to the event, SLAS purchased 100 sets of Solar Viewers from the company, Rainbow Symphony (<http://www.rainbowsymphonystore.com/eclipse-viewer.html>). This very well-known company, has supplied safe solar filters for more than 10 years around the world. Final cost to SLAS for 100 viewers with shipping was less than 90 cents each. Stock filters are available for as low as 25 cents each in quantities of 1000 or more.

There was increased public interest in the days leading up to the eclipse. SLAS officers and website were contacted asking questions about where Public events would be held. The public also wanted to know where they could buy eclipse glasses locally. During the Cahokia viewing SLAS handed out viewers to the Public. The state park prohibited sales without a permit.

The skies were clear before the eclipse started which gave us time to set up our equipment on Monk’s Mound. Only small lightweight equipment was hauled up the 100 plus steps to the top. For this event I setup my ETX-60 with home-made Baader Film solar filter. Piggybacked to the ETX was a small HD camcorder also with Baader Film. I was able to align the ETX to north and then set the tracking accurately enough for the Sun to remain in view without much hand correction. Next I set up a Canon T3 DSLR on a tripod with 300mm lens

with Baader Film. Manual tracking was required for the set-up.

The eclipse started at 4:45pm and maximum eclipse was at 5:47pm. The Sun would set at 6:07pm. I started my video recording at 4:46pm and the Moon’s limb was readily apparent. Note: I failed to check the video camera clock until after the event was over, the clock was 43 minutes slow so I had to add 43 minutes to all video frame time stamps. Clouds were approaching fast. We were able to view the Sun between 4:46 till 4:53 before clouds blocked our view. Then the Sun popped out again between 5:10 until 5:17. Once again clouds blocked the Sun. The Sun reappeared between 5:24 till 5:28. The Sun popped out for less than a minute around 5:56pm after that the Sun was lost for good behind clouds. Left image: 4:46pm, Right image: 5:28pm



At 5:58pm I was able to remove the filter from the DSLR and capture the image below. The Sun was over-exposed in the original image but post-processing was able to improve the final image.

Volunteer Hours for 2014

Following is the number of events and hours recorded on Night Sky Network as of Dec 17, 2014. Total hours are 736.6 and 72 events. The list below are the Outreach totals for 2014 through Dec. 17. **Remember, any member with 5 or more volunteer events will qualify for the 2015 NSN Outreach Pin.** In 2013, SLAS members volunteered for 59 events and logged 716 hrs for NSN events. It appears that 2015 may surpass both of these measures by a large margin if the number of star parties booked so far is any indication!

Cook Feldman	33 events; 108.3hrs	Nathan Biermann	2 events; 7.3hrs
John Beaury	29 events; 95hrs	Paul Baldwin	2 events; 4hrs
Donald Ficken	28 events; 76.1hrs	Robert Fischer	2 events; 8.5hrs
Larry Campbell	21 events; 63hrs	Tom Keutzer	2 events; 5hrs
Mark Jones	17 events; 57hrs	Wayne Clark	2 events; 9hrs
James Small	15 events; 41hrs	Amy White	1 events; 2.8hrs
Jim Trull	12 events; 39hrs	Andrew Kniffin	1 events; 2.8hrs
Rich Heuermann	11 events; 22hrs	Bradley Waller	1 events; 3hrs
Richard Fefferman	7 events; 16.3hrs	Brent Buch	1 events; 7hrs
Bill Breeden	6 events; 18hrs	Bryan White	1 events; 2.8hrs
William Winningham	6 events; 16hrs	Carl Masthay	1 events; 2hrs
Ann Trull	5 events; 17hrs	Connie Gleason	1 events; 1.5hrs
Brian Mills	5 events; 11.5hrs	David Hammock	1 events; 4hrs
Rick Menendez	5 events; 13.3hrs	Doug Blum	1 events; 3hrs
Benjamin Winningham	4 events; 10.5hrs	Edward Frey	1 events; 4hrs
Bill Biermann	4 events; 13.3hrs	Frank Mack	1 events; 2.5hrs
Grant Martin	4 events; 18.8hrs	Michael Malolepszy	1 events; 3hrs
Richard Jennings	4 events; 11hrs	Sharon Bertram	1 events; 4hrs
Annalise Biermann	2 events; 6hrs	William Neubert	1 events; 4hrs
Dan Duffy	2 events; 5.3hrs		

**Report from St. Louis Public Library
Star Parties**

Machacek hosted St. Louis Public Library's first Star Party. Attendees were disappointed to stay inside, but the extreme cold, cloudy sky and lack of visibility made it a necessity. Inside, the mix of adults and children learned more about the telescope program, how to use the device, and what kinds of books, apps, and tools would be helpful when using the telescope on their own. One group of young people had traveled all the way from Millstadt, Illinois to attend the program and to present an impromptu presentation of their own. Members of the St. Louis Astronomical Society seemed delighted at the turn of events, and offered constructive and encouraging feedback to the young astronomers.

Numbers for two library events: Machacek – 29 Barr -- 14 total (8 adults, 6 kids/teens)

**Assumption Summary – 2015 St. Louis
Astronomical Society Annual Budget**

Work began on the 2015 budget after the financial close for September 2014. The year to date information is therefore through September 30, 2015 with an estimated projection of activity from October 1, 2014 through December 31, 2014.

The budget information was assembled partially based on assumptions developed from the September 2014 year to date actual in areas such as the magazine subscriptions and 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 solely 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 2015 is based on:

Regular (Adult) Memberships	100 @ \$25.00/year	\$2,500
Youth Memberships	6 @ \$10.00/year	60
Family Memberships	22 @ \$40.00/year	880

As indicated in the budget, this will provide operating revenues in the total of \$3,440 for 2015. 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 2015 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.

For 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 change was made in order better track printing resources, since the functions utilize the same printing resources. The overall budget for printing expense has been increased to reflect an

(Continued on page 5)



Above:
Don Ficken and Brian Mills show patrons at the Machacek Branch of St. Louis Public Library how to use the library telescopes.

Left: Two patrons with ideas they wanted to present about using telescopes at a star party.

Photos by Patty Carlson.

(Continued from page 4)

anticipated higher volume of brochure printing for 2015.

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 2014 because of our hosting telescope viewing at Kirkwood Park at least twice a year.

The Star-B-Que has been kept at a constant level as the previous year budget. 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 a \$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. This will require that the membership provide their RSVP and number of attendees so the event can be planned accordingly.

Library Telescope Program:

The Library Telescope Committee requests \$600 in funding to continue expansion of the library telescope program in the regional St. Louis area. The committee will evaluate the best targets based on the goal of the library telescope program and feedback that we are getting on current deployment. The purchase of additional telescopes would not occur unless a commitment for use was made by the corresponding library system.

2015 Eclipse Workshop:

The American Astronomical Society plans on at least two Eclipse Workshops in 2015. Eight SLAS members were able to attend the 2014 workshop held in Columbia MO. In 2015 the workshops will be at more remote locations like Indianapolis, IN. This decreases the likelihood of SLAS attendance without some supplemental support. Therefore, SLAS will budget \$200 for one member's registration fee to attend one of the 2015 conference.

2017 Eclipse Committee:

An eclipse committee will be formed to coordinate SLAS's response to the 2017 total solar eclipse. \$200 has been budgeted for 2015 and will be used to develop and print promotional items and support local workshops sponsored by SLAS and the Science Center. Items being considered are purchasing of eclipse viewers and 2017 eclipse posters by noted artist/astronomer Tyler Nordgren.

Meeting Expense:

Meeting expense is comprised of Meeting Refreshments and Meeting Speaker Fees. The meeting refreshments are self-explanatory and have been budgeted at \$450, unchanged from 2014 budget levels. 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 \$500 in recent years. The 2015 speaker budget remains unchanged from 2014 at \$250.

Membership Initiatives:

Historically membership initiatives has included component for merchandise, membership recognition and general membership initiatives. For 2015 these items are being tracked as separate categories to improve clarity to both the membership and for budget tracking purposes. The membership initiatives program focuses on growing membership. The \$200 budget will include

\$50 for two SLAS memberships to be raffled at Astronomy Day 2015 and \$150 for promotional materials including handouts to be given away as part of the Library Telescope training and Outreach activities

Membership Recognition:

Two special membership programs have been budgeted for 2015, which are the same programs that were provided for 2014. The membership recognition will budget \$200. This will include \$100 for Night Sky Network pins and certificates. Last year 14 members were recognized for their Outreach activities.

An additional \$100 will be budgeted for recognition of members for contributing their time for other SLAS functions. A new membership recognition committee is in the process of being formed and an email address, recognition@slasonline.org has been set up so that recommendations can be submitted to the committee. The committee will provide regular reports to the board.

Merchandise:

A budget of \$120 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 2015 will be for the purpose of purchasing the latest CDs available for both Sky & Telescope and Astronomy Magazine at an estimated cost of \$30 each. In addition the Library will carry the "Best of the ATM Journal" and other publications at an estimated cost of \$240.

Loaner Scope Program:

SLAS has in its inventory, telescopes ranging from 13" to 75mm. This includes five Dobsonian reflectors, two Refractors, two ETX Maksutovs, one Schmidt-Cassegrain, one 20x80mm binocular and one Hydrogen-alpha and one white light solar telescope. These are housed in a storage shed when not checked out by members. The current year Loaner Scope budget will be \$200 for maintenance/repair of the shed, telescopes and upgrade of some accessories. Projected purchases for 2015 include new storage case for the Unitron Refractor, Solar filters for the EPX-90 and ETX-125, and two collapsible, 2-wheel dollies for handling the larger Dobsonian scopes.

SLAS Brochures:

Brochure printing expense has been combined with the newsletter printing expense for 2015. The brochures contain information about the Society that is distributed to the general public at all outreach events. Brochure paper requirements are estimated at 12 reams of "astro-bright" premium paper at a cost of \$156.

Summary:

The 2015 budget as presented equals a net loss of \$2,068 for 2015. Meeting the projected expenses for the upcoming year will require supplementing the operations from cash reserves to the extent donations do not make up the shortfall. All attempts have been made during this process to provide equivalent programs for the membership as had been provided in previous years.

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 - 2015						
	Actual	Budget	Projection		Budget	
	Year to Date	Year to Date	Oct-14 to	Year to date	Annual	Annual
	Sep-14	Sep-14	Dec-14	Dec-14	2014	2015
Income						
Magazine Subscription						
Astronomy Magazine Sales	\$ 272.00	\$ 1,564.00	\$ 510.00	\$ 782.00	\$ 2,074.00	\$ 782.00
Sky & Telescope Sales	428.35	1,977.00	395.40	823.75	2,372.40	1,252.10
Total Magazine Subscription	\$ 700.35	\$ 3,541.00	\$ 905.40	\$ 1,605.75	\$ 4,446.40	\$ 2,034.10
Membership Dues	\$ 2,390.00	\$ 2,525.00	\$ 1,025.00	\$ 3,415.00	\$ 3,550.00	\$ 3,440.00
Merchandise Sales					-	-
Total Income	\$ 3,090.35	\$ 6,066.00	\$ 1,930.40	\$ 5,020.75	\$ 7,996.40	\$ 5,474.10
Cost of Goods Sold						
Magazine Subscriptions						
Astronomy Magazine Cost	\$ 272.00	\$ 1,564.00	\$ 510.00	\$ 782.00	\$ 2,074.00	\$ 782.00
Sky & Telescope Cost	428.35	1,977.00	395.40	823.75	2,372.40	1,252.10
Total Cost of Goods Sold	\$ 700.35	\$ 3,541.00	\$ 905.40	\$ 1,605.75	\$ 4,446.40	\$ 2,034.10
Gross Profit	\$ 2,390.00	\$ 2,525.00	\$ 1,025.00	\$ 3,415.00	\$ 3,550.00	\$ 3,440.00
Operating Expense						
Programs & Events						
Trout Lodge 1000 yd. model (2014 Only)					200.00	-
Astronomy Day (2014 Only)		200.00	-	-		
Home Made Fest	54.99	100.00	-	54.99	100.00	100.00
Star BBQ Expense	136.75	175.00	-	136.75	175.00	175.00
Library Scope Program Escrow	-	-	1,000.00	1,000.00	1,000.00 *	600.00
Eclipse Workshop Dues	-	150.00	-	-	150.00 **	200.00
2017 Eclipse Committee						200.00
Meeting Expenses						
Meeting Refreshments	186.64	337.50	52.17	238.81	450.00	450.00
Meeting Speaker Fees	139.57	187.50	60.00	199.57	250.00	250.00
Total Meeting Expenses	\$ 326.21	\$ 525.00	\$ 112.17	\$ 438.38	\$ 700.00	\$ 700.00
Membership Initiatives	\$ 30.00	\$ 393.75	\$ 87.68	\$ 117.68	\$ 325.00	\$ 200.00
Merchandise						120.00
Membership Recognition			15.03	15.03	200.00	200.00
Programs & Events	\$ 547.95	\$ 1,543.75	\$ 1,214.88	\$ 1,762.83	\$ 2,850.00	\$ 2,495.00
Newsletter Postage	\$ 117.60	\$ 112.50	\$ 10.00	\$ 127.60	\$ 150.00	\$ 180.00
Newsletter Printing (see combined for 2015)	230.26	101.25	90.00	320.26	135.00	-
Newsletter - Other / Printer Depreciation					-	-
Total Newsletter	\$ 347.86	\$ 213.75	\$ 100.00	\$ 447.86	\$ 285.00	\$ 180.00
Library expense	\$ 88.62	\$ 225.00		\$ 88.62	\$ 300.00	\$ 300.00
Astronomical League Dues	650.00	660.00	-	650.00	660.00	650.00
Loaner Scopes	155.25	225.00		155.25	300.00	200.00
Brochures (see combined printing for 2015)	43.69	187.50		43.69	250.00	-
Insurance	380.00	380.00	-	380.00	380.00	380.00
Website	113.88	108.00	-	113.88	108.00	135.00

ST. LOUIS ASTRONOMICAL SOCIETY						
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	Actual	Budget	Projection		Budget	
	Year to Date	Year to Date	Oct-14 to	Year to date	Annual	Annual
	Sep-14	Sep-14	Dec-14	Dec-14	2014	2015
Administrative Expenses						
Corporate Filings	20.00	20.00	-	20.00	20.00	-
Office Supplies		182.00	40.00	40.00	245.00	165.00
Other Expenses	110.18		-	110.18	-	-
PayPal Fees	29.14	26.00	10.00	39.14	35.00	40.00
Postage	39.20	112.50	30.00	69.20	150.00	75.00
Printing / Copying Expense (combined 2015)					-	888.00
Administrative Expenses	\$ 198.52	\$ 340.50	\$ 80.00	\$ 278.52	\$ 450.00	\$ 1,168.00
Total Operating Expense	\$ 2,525.77	\$ 3,883.50	\$ 1,394.88	\$ 3,920.65	\$ 5,583.00	\$ 5,508.00
Net Income/(Loss) From Operations	\$ (135.77)	\$ (1,358.50)	\$ (369.88)	\$ (505.65)	\$ (2,033.00)	\$ (2,068.00)
Other Income / Expense						
Other Income						
Donations						
Girl Scouts of E. Mo. Dist. 4	\$ 50.00			\$ 50.00	\$ -	\$ -
LaSalle Springs Middle School	100.00			100.00	-	-
City of Crestwood	150.00			150.00	-	-
Webster Groves Nature Society	200.00			200.00	-	-
Halls Ferry Elementary	200.00			200.00		
SLAS Club Members	6.33			6.33	-	-
Donations - Other	5.00			5.00	-	-
Total Donations	\$ 711.33		\$ -	\$ 711.33	\$ -	\$ -
Interest Income	\$ 28.57	\$ 75.00	\$ 38.09	\$ 66.66	\$ 100.00	\$ 100.00
Non-Operating Income	1,032.66			1,032.66	-	-
Total Other Income	\$ 1,772.56	\$ 75.00	\$ 38.09	\$ 1,810.65	\$ 100.00	\$ 100.00
Other Expense						
Physical Inventory Adjustment	\$ 92.93			\$ 92.93	\$ -	\$ -
Total Other Expense	\$ 92.93		\$ -	\$ 92.93	\$ -	\$ -
Net Other Income / (Expense)	\$ 1,679.63	\$ 75.00	\$ 38.09	\$ 1,717.72	\$ 100.00	\$ 100.00
Net Income / (Loss)	\$ 1,543.86	\$ (1,283.50)	\$ (331.79)	\$ 1,212.07	\$ (1,933.00)	\$ (1,968.00)

The great tradition of dark sky observing continues with the **37th Annual TEXAS STAR PARTY, May 10-17, 2015!** Staying on the Ranch in housing, RV, or camping? Staying off-site in other accommodations? Everyone needs to enter the TSP drawing, held in late January. You should submit a Registration/Reservation Request Form to ENTER THE TSP DRAWING before January 21, 2015. This will provide you the highest possible chance of being selected as one of the 500 people who will be able to attend TSP this year.

Follow this link to get started! <https://texasstarparty.org/get-started/> SIGN UP NOW! Get info on our new AstroLearn Workshop at <https://texasstarparty.org/astrolearn/> Need funds to

help pay for your trip to TSP? You can find out about getting paid while at TSP at: <https://texasstarparty.org/paid-workers-needed/> We look forward to seeing you next May! Sincerely, the volunteers for Texas Star Party

MSRAL Conference Dates and Location Set

The Mid-States Region of the Astronomical League Convention will be held on the campus of the **University of Arkansas at Little Rock May 29-31, 2015.** It is hosted by the Central Arkansas Astronomical Society. More information will be forthcoming as it becomes available. Set the date aside now and join your fellow astronomers at this fun event for our region of the country!

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	Year to Date	Year to Date	Oct-14 to	Year to date	Annual	Annual
	Sep-14	Sep-14	Dec-14	Dec-14	2014	2015
Required versus Discretionary Spending						
Gross Profit	\$ 2,390.00	\$ 2,525.00	\$ 1,025.00	\$ 3,415.00	\$ 3,550.00	\$ 3,440.00
Required Expenses						
Newsletter Postage	\$ 117.60	\$ 112.50	\$ 10.00	\$ 127.60	\$ 150.00	\$ 180.00
Newsletter Printing	230.26	101.25	90.00	320.26	135.00	-
Astronomical League Dues	650.00	660.00	-	650.00	660.00	650.00
Insurance	380.00	380.00	-	380.00	380.00	380.00
Website	113.88	108.00	-	113.88	108.00	135.00
Corporate Filings	20.00	20.00	-	20.00	20.00	-
Office Supplies		182.00	40.00	40.00	245.00	165.00
PayPal Fees	29.14	26.00	10.00	39.14	35.00	40.00
Postage	39.20	112.50	30.00	69.20	150.00	75.00
Printing / Copying Expense					-	888.00
	\$ 1,580.08	\$ 1,702.25	\$ 180.00	\$ 1,760.08	\$ 1,883.00	\$ 2,513.00
Balance for Discretionary Items	\$ 809.92	\$ 822.75	\$ 845.00	\$ 1,654.92	\$ 1,667.00	\$ 927.00
Discretionary Spending						
Home Made Fest	54.99	100.00	-	54.99	100.00	100.00
Meeting Refreshments	186.64	337.50	52.17	238.81	450.00	450.00
Meeting Speaker Fees	139.57	187.50	60.00	199.57	250.00	250.00
Membership Initiatives	30.00	393.75	87.68	117.68	325.00	200.00
Merchandise						120.00
Membership Recognition			15.03	15.03	200.00	200.00
Carlisle Campout/Astronomy Day		200.00	-	-	200.00	-
Star BBQ Expense	136.75	175.00	-	136.75	175.00	175.00
Library expense	88.62	225.00	-	88.62	300.00	300.00
Loaner Scopes	155.25	225.00	-	155.25	300.00	200.00
Brochures	43.69	187.50	-	43.69	250.00	-
Other Expenses	110.18		-	110.18	-	-
Library Scope Program Escrow			1,000.00	1,000.00	1,000.00	* 600.00
Eclipse Workshop Dues					150.00	** 200.00
2017 Eclipse Committee						200.00
	\$ 945.69	\$ 2,031.25	\$ 1,214.88	\$ 2,160.57	\$ 3,700.00	\$ 2,995.00
Net Income/(Loss) From Operations	\$ (135.77)	\$ (1,208.50)	\$ (369.88)	\$ (505.65)	\$ (2,033.00)	\$ (2,068.00)

* Membership approved expenditure for 3 library telescopes with funds available through 2015

** Membership approved reimbursement for Mark Jones 2014 Eclipse Conference dues, to date the conference has not accepted payment from Mark Jones

Recognition Committee Formed

Larry Campbell has been installed by the board as the head of a committee to recognize service and achievement by SLAS members in areas other than outreach. He will be looking for volunteers to serve with him on the committee to assist with nominations for people to be recognized. To that end, an email forward called *recognition at slasonline.org* has been established for people to nominate members for recognition. If you would like to volunteer to serve on the committee, send an email or talk to

Larry. If you would like to nominate someone for recognition, send an email to Larry or hand him a written nomination. More information will be forthcoming.

Contest for Library Telescope Case

We are in the process of developing a contest to design a case for the library telescopes. There have been requests by some libraries for an effective and easy to use protective case. There will be specific parameters for the contest and we will publish them soon.

SLAS Executive Board Minutes - November 6, 2014

1. Opening Activities Meeting called to order at 6:57pm Attendees: Jim Small, Paul Baldwin, Bill Winningham, Larry Campbell, Mark Jones
October minutes approved.

2. External Business SLSC First Friday: Nov 7: The Science of Sherlock Holmes, Dec 5th: Battlestar Galactica – So Say We All

Next board meeting: 12/11 Suggested dates for 2015: Jan 8, Feb 12, March 12, April 9, May 7, June 11, July 9, August 6, Sept 10, Oct 8, Nov 12, Dec 10. Jim Small recommended moving the Board meeting date one week earlier in February and March to keep it 2 weeks before the regular meeting. Board approved moving the dates to Feb 5th and March 5th.

3. Director Reports:

President: Library Telescope Program: Library telescope training sessions have been a success. 18 total telescopes have been delivered. Star party for Kirkwood Library set up for Nov 8th. Kirkwood Library training sessions complete, thanks to Rich Heuermann, Don Ficken and Jim Small for the training. Jim and Don have interview on Fox 2 News at 9 Friday morning Nov 7th about the program. November 10th is the go-live date for all libraries.

Vice President –Paul Baldwin: November speaker is Dr Bharat Ratra on Dark Matter; December will be a SLAS member Eclipse Show-n-Tell. SLAS members will display their photos from the recent Lunar and Solar eclipses. Members will share their stories and suggestions on how to take eclipse photos; January will be a dual presentation, Astronomical Events for 2015 by Mark Jones and Space Events for 2015 by Paul Baldwin; February speaker Joseph Marcus will speak on comet 67P mission.

Astro 101: Topic: Library Telescope report by Jim Small

Secretary – Mark - No report

Treasurer/ALCor – Budget committee meeting was held Oct 20th where inputs were collected from all committee heads. Board reviewed the 2015 Budget narratives. With the current budget plan, SLAS will run a \$2068 deficit. This does not take into account revenue from donations or increased membership from Outreach and Library scope program. Motion made to accept the 2015 preliminary budget for submittal to the general membership for approval. Motion by Larry Campbell, second by Paul Baldwin, motion passed

Hospitality – Grant M no report submitted

Board member at large reports

Larry Campbell Back from trip to Germany. Would like to show photos taken at the astronomy exhibit seen in Germany

Tom Nickelson: no report

Brad Waller: no report

4. Committee Reports:

Membership – 152 members up one membership since beginning of 2014.

Merchandise – SLAS logo is set up with Heads and Threadz with locations in the Delmar Loop and in the Gallaria. Cost for logo setup was \$60. We now have a vector file of our logo that can be provided to other businesses for use in their set-up. Cost to embroider logo was \$10 on sample shirt. It can be distributed to Johnny Mac sporting goods and to Infini-tees.

Telescope Making – no report submitted

Librarian – No changes

Newsletter – Deadline for newsletter is Nov 16th. Full budget and narrative will be published in newsletter.

Website – Joomla is installed on the website and a new version is currently being populated. The Library Telescope page was updated and has most of the current news stories about the program linked. The new website will likely go live sometime in December.

Night Sky Network – If you send out messages, to recruit volunteers for star parties. Please indicate the name, date, time, and location in the subject area, don't leave it as "Announcing SLAS Events"

SLASdialogs – Encourage budget discussion on dialogs this month

Dark Site – No Dark Sky Parties planned until next March.

Loaner Equipment – Mark Jones purchased zoom eyepiece for Super C8 Outreach Scope.

Publicity – release sent

Observing Programs – no report

Star Parties: Upcoming star parties: Nov 7 Science Center, Sat, Nov 8 Kirkwood Library, Friday, Nov 14, Wildwood MS, Wed, Nov 19, Kennard Classical Academy, Mon, Nov 24, Parkway North, Friday, Dec 5, Science Center,

5. Old Business - None

6. New Business None

7. Closing Activities Motion to adjourn the meeting was made by Mark second by Bill. Meeting adjourned at 8:54p

**St. Louis Astronomical Society
Balance Sheet
As of November 30, 2014**

8:57 PM
12/10/14
Accrual Basis

**St. Louis Astronomical Society
Profit & Loss Budget vs. Actual
January through November 2014**

	Dec 31, 13	Nov 30, 14
ASSETS		
Current Assets		
Checking/Savings		
Checking - First Bank	3,263.28	5,092.46
Deposit, Certificate of	20,027.97	20,057.94
Library Telescope Escrow *	0.00	1,660.10
Merchandise Change Fund	20.00	20.00
PayPal	24.15	207.87
Savings - First Bank	3,357.60	3,359.13
YMCA Trout Lodge Escrow	877.87	542.87
Total Checking/Savings	27,570.87	30,940.37
Accounts Receivable		
Accounts Receivable	0.00	5.00
Total Accounts Receivable	0.00	5.00
Other Current Assets		
Inventory Asset	1,707.15	1,614.22
Investment in Mid-States 2014	2,000.00	0.00
Total Other Current Assets	3,707.15	1,614.22
Total Current Assets	31,278.02	32,559.59
Total Fixed Assets	0.00	0.00
TOTAL ASSETS	31,278.02	32,559.59
LIABILITIES & EQUITY		
Liabilities		
Current Liabilities		
Accounts Payable		
Accounts Payable	40.99	0.00
Total Accounts Payable	40.99	0.00
Total Current Liabilities	40.99	0.00
Total Liabilities	40.99	0.00
Equity		
Opening Bal Equity	8,137.66	8,137.66
Retained Earnings	19,214.15	22,221.50
Net Income	3,885.22	2,200.43
Total Equity	31,237.03	32,559.59
TOTAL LIABILITIES & EQUITY	31,278.02	32,559.59

* Funds restricted for the Library Telescope Program.

	Jan - Nov 14	Budget	\$ Over Budget
Ordinary Income/Expense			
Income			
Magazine Subscription	800.25	4,077.65	(3,277.40)
Membership Dues	2,950.00	3,165.00	(215.00)
Total Income	3,750.25	7,242.65	(3,492.40)
Cost of Goods Sold			
Magazine Subscriptions	733.30	4,077.65	(3,344.35)
Total COGS	733.30	4,077.65	(3,344.35)
Gross Profit	3,016.95	3,165.00	(148.05)
Expense			
1-Programs & Events*	1,891.96	2,597.91	(705.95)
2-Newsletter	377.69	261.25	116.44
3-Library expense	135.52	225.00	(89.48)
4-Astronomical League Dues	650.00	660.00	(10.00)
5-Loaner Scopes	207.20	225.00	(17.80)
6-Brochure	80.60	229.16	(148.56)
7-Insurance	380.00	380.00	
8-Website	113.88	108.00	5.88
9-Administrative Expenses	237.33	413.50	(176.17)
Total Expense	4,074.18	5,099.82	(1,025.64)
Net Ordinary Income	(1,057.23)	(1,934.82)	877.59
Other Income/Expense			
Other Income			
Donations	961.33		961.33
Interest Income	31.50	91.00	(59.50)
LTP Receipts	7,025.00	0.00	7,025.00
Non-Operating Income	1,032.66	0.00	1,032.66
Total Other Income	9,050.49	91.00	8,959.49
Other Expense			
LTP Disbursements	5,364.90	0.00	5,364.90
Non-operating Expense	92.93	0.00	92.93
YMCA Trout Lodge ESCROW Expense	335.00	0.00	335.00
Total Other Expense	5,792.83	0.00	5,792.83
Net Other Income	3,257.66	91.00	3,166.66
Net Income	2,200.43	(1,843.82)	4,044.25

* Includes \$1,000 approved by membership for the Library Telescope Program

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*

1/8/2015	2/12/2015	3/12/2015
4/9/2015	5/7/2015	6/11/2015
7/9/2015	8/6/2015	9/10/2015
10/8/2015	11/12/2015	12/10/2015

Dark Sky Observing Dates

See you in March!

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

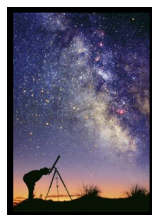
4/22/2015	5/27/2015	6/24/2015
7/22/2015	8/19/2015	9/16/2015
10/21/2015		

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

1/2/2015	2/6/2015	3/6/2015
4/3/2015	5/1/2015	6/3/2015
None in July	8/7/2015	9/4/2015
10/2/2015	11/6/2015	
	12/4/2015	

YMCA Edward Jones Star Parties

3/16/2015	4/13/2015	5/11/2015
6/8/2015	7/13/2015	8/10/2015
9/7/2015	10/5/2015	



Pattonville Observatory Public Viewing Dates

January 9, 2015	Friday 7:00-9:00 p.m.
January 23, 2015	Friday 7:00-9:00 p.m.
February 13, 2015	Friday 7:00-9:00 p.m.
February 27, 2015	Friday 7:00-9:00 p.m.
March 13, 2015	Friday 8:00-10:00 p.m.
March 27, 2015	Friday 7:00-9:00 p.m.
April 10, 2015	Friday 8:30-10:30 p.m.
April 24, 2015	Friday 9:00-11:00 p.m.

May 1, 2015
 May 22, 2015

Friday 9:00-11:00 p.m.
 Friday 9:00-11:00 p.m.

SLAS EVENTS

December

19 Fri SLAS Regular Meeting

January

2 Fri Public Telescope Viewing SLSC
8 Thurs SLAS Board Meeting
9 Fri Pattonville Observatory
16 Fri SLAS Regular Meeting
22 Wed Lewis and Clark Library SLCL
23 Fri Pattonville Observatory
26 Mon St. Louis Public Library
28 Wed Tesson Ferry Library SLCL
29 Thurs Library Telescope Support Training

February

2 Mon Thornhill Branch Library SLCL
6 Fri Public Telescope Viewing SLSC
12 Thurs SLAS Board Meeting
13 Fri Pattonville Observatory
19 Thurs SLPL Star Party (Location TBD)
20 Fri SLAS Regular Meeting
20 Sat Homemade Fest !!
24 Tues Machacek Library SLPL

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.

Infini-tees Shirts Still Available

A limited number of shirts from Infini-Tees are still available. They will be sent back after the December meeting. If you would like one, contact Jim Small or come to the meeting. Reservations for a size may be made in advance. Cost is \$20

Shirts available:

Sizes

Globular Cluster (M13)	M (2), L (2)
Open Cluster (Pleades)	M (2), L (3), XL (3), XXL (2)
Jupiter	S (1), XXL (2)
Moon	XXL (2), XXXL (2)

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 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 @ \$34.00 / 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 *Paul Baldwin* 314-781-4080
 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 *Vacant effective Dec 31*
 hospitality at slasonline.org
Board Members at Large:
Tom Nickelson 314-346-9565
 board17 at slasonline.org
Larry Campbell 636-244-2867
 board15 at slasonline.org
Bradley Waller 314-481-7250
 board16 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
 librbrarytelescope 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
'SLASdialogs' Moderator *Mark Jones, Rhonda Whelan*
 dialogsmoderator at yahoo.com
Star Party Coordinator *Mike Malolepszy* 314-781-4701
 starparty at slasonline.org
Telescope Making *Bill Davis, Jim Melka* 314-469-3061
 telescope at slasonline.org
Webmaster *Jim Small* 314-909-7211
 webmaster at slasonline.org

Devoted to the Interest and Advancement of the Science of Astronomy

ST. LOUIS ASTRONOMICAL SOCIETY

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

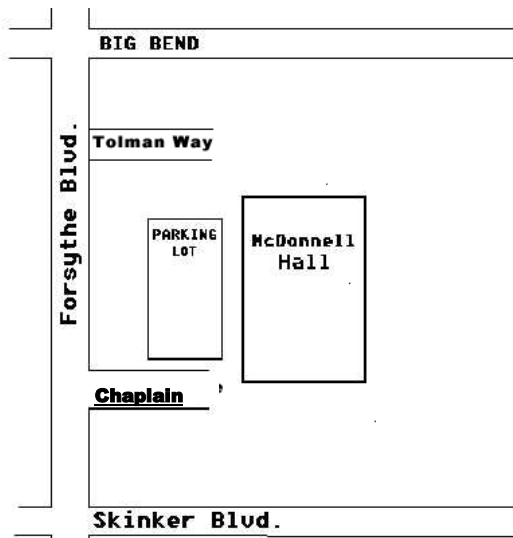


Who We Are and What We Do

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

