

# THE EVENT HORIZON



## ST. LOUIS ASTRONOMICAL SOCIETY

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

**VOLUME 25, Issue 4  
April, 2015**

Mid States Region  
of the  
Astronomical League



## Rosetta at Comet 67P by Joseph Marcus, MD

Dr. Joseph Marcus, M.D., will be featured at the April meeting of the Saint Louis Astronomical Society. The event, cosponsored by NASA's Missouri Space Grant Consortium, is open to the public free of charge.

Hailed by Science magazine as the 2014 "Breakthrough of the Year," the European Space Agency's Rosetta spacecraft is revolutionizing our understanding of comets. Aided by gravitational slingshot assists from Earth and Mars, the spacecraft reached its quarry and completed a ten-year, billion-mile journey to become the first to orbit, rather than to fly by, a comet comet 67P/Churyumov-Gerasimenko, in August, 2014. There it found a bizarre dust-covered world of pits, crevices, cliffs, cracks, boulders, "goosebumps," and even dunes. On November 12, Rosetta's Philae lander was launched. The microgravity of this tiny 4-km bi-lobed comet proved quite a challenge to

the lander, which bounced several times from an unexpectedly hard surface, finally coming to rest in a heavily-shadowed cliff region whose location is still unknown. But before it went to "sleep" after battery depletion, it returned stunning images and other data from the surface, and it may yet awaken. The Rosetta orbiter has continued to function, sending images and data 300 million miles back to Earth. A visit with the co-discoverer, Klim Churyumov, in Kyiv is recounted.

Dr. Marcus will describe the nature and origin of comets as well as examine the early results of the Rosetta mission. He will explain how the comet will change as it approaches its nearest distance to the sun next August, and what scientists hope to learn from the 17-month long Rosetta observations.

Dr. Marcus is an avid astronomer with particular interest in the study of comets. In addition to observing them, he was editor of The Comet News Service, a quarterly and special-edition publication of the McDonnell Planetarium in the mid-seventies and early eighties.

**May** - Kathrin Powell "All the Mars Rovers and Discoveries"

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Neil deGrasse Tyson  
Peabody Theater  
May 13, 2015

# RAFFLE!

Tyson is coming and SLAS is holding a raffle for 2 tickets for this event!

***Tickets are for members only***

They are \$2 each or 6 for \$10

See Brad Waller at the meeting for tickets.  
***DRAWING IS AT THE APRIL MEETING!***



## President's Corner

by  
Jim Small

Elections are next month and we have nearly a full slate of nominations (still to be formally announced) for officers for next year. President-Jim Small, Vice President-Paul Baldwin, Secretary-Mark Jones, Treasurer-Bill Winingham, Hospitality-Larry Campbell. The only position we do not have a nomination for is Board Member at Large for a three year term. Obligations for this position include attending board meetings once a month (2 hours) and having fun at dinner beforehand at Balducci's! (optional) It would be great to have someone step up at this month's meeting for the position.

The build for the next phase of the Library Telescope program has been moved to April 25 at Parkway West High School. See the SLAS calendar to sign up. Speak to Don Ficken if you have questions!

The contest for designing a case for Library Telescopes is over with Frank Mack taking first place (\$50 prize), Larry Campbell 2nd and Jim Small 3rd (SLAS 1 year memberships) Congratulations to all!

Neil deGrasse Tyson raffle tickets are still available. \$2 each or 6/\$10. See Brad Waller for details and tickets. **The drawing for the raffle will take place at the April meeting.**

We are ready to go for Astronomy Day at Kirkwood Library. It will be from 10-4 Saturday, April 25. RSVP on Night Sky Network if you plan to attend and let us know how long you can stay. It will be very similar to past Astronomy Days with solar viewing, tables for information and activities inside and prize giveaways including Galileoscopes and possibly a Celestron Telescope. There are *many* **Star Parties and Events** coming in the next two months. **Please RSVP on Night Sky Network and be sure to show up if you RSVP.** We need to know we can count on your to assist us at various events. Check the SLAS calendar and sign up! If you need help with the RSVP, please ask at the meeting and we can get you started. Also see the events page in this newsletter.

I won't be joining you at this month's meeting as I am headed for NEAF on Wednesday morning. Give me a call if you have small items you need me to pick up while I'm there! There are always lots of vendors with bins of everything you might need. We will see you in May both at the regular meeting AND at MSRAL!



Right: Winners of the Library Telescope Case Contest:

Left to right:  
Don Ficken, sponsor  
Larry Campbell 2nd  
Frank Mack 1st  
Jim Small 3rd

# MSRAL

The Mid-States  
Region of the  
Astronomical League  
Convention

May 29-31, 2015

University of Little  
Rock, AK

Registration Page  
is Open!

<http://msral2015.caastro.org/>

See you there!

# Astronomy Day

Saturday, April 25, 2015

from 10am - 4pm

Kirkwood Public Library

Solar Viewing, Activities,

Displays, Information

Galileoscope Giveaways Hourly

## Library Telescope Build Moved to April 25th

If you haven't heard by now, the telescopes from Orion were delayed by a dock strike. As a result, the date for the build party at Parkway West has been moved from April 11 to April 25 (this Saturday) If you wish to help, be sure to RSVP on Night Sky Network and speak to Don Ficken about it. The build for this year will be for about 50 telescopes.

## Observing Program Awards

*by Mark Jones*

The Astronomical League offers several dozen observing program awards. Any member of SLAS and/or the Astronomical League is eligible to submit their application for these awards. The applications are submit by the SLAS Observing Chairman to the designated national coordinator for each program. The national program coordinator will review the application and determines if all criteria have been achieved. Two SLAS members have recently earned awards. On March 28th Grant Martin, was informed he has earned the second level Outreach Program Award. To earn this award Grant submitted a log with more than 60hours of Outreach. In 2011 Grant earned the Basic Outreach award and now adds the Stellar level to his accomplishments. This is the 16th AL award for Grant. Congratulations to Grant.

Jerry Loethen received his Southern Sky Telescopic Award on March 31st and the Southern Sky Binocular Award on April 6. To achieve these awards Jerry had to observe and submit logs for at least 50 objects on the Southern Sky lists. These are the 16th and 17th AL awards for Jerry. Congratulations to Jerry.

## Outreach Volunteer Efforts in 2015

*by Mark Jones*

- In 2014, SLAS members volunteered for 72 events and logged 736.6 hrs for NSN events
- Since June 2007 SLAS members have logged 3900 hrs for NSN events
- So far through April 9, 2015, 40 SLAS members have logged more than 249 hours in Outreach activities!
- Thank you to all our volunteers!

Donald Ficken	33.5 hrs, 17 events
John Beury	25 hrs, 10 events
Cook Feldman	24.5 hrs, 11 events
Larry Campbell	14 hrs, 7 events
Mark Jones	13 hrs, 5 events

Frank Mack	11.5 hrs, 7 events
Jim Trull	9.5 hrs, 5 events
Brian Mills	9 hrs, 5 events
Sharon Bertram	7.5 hrs, 6 events
James Small	7 hrs, 4 events
Richard Fefferman	7 hrs, 4 events
Bill Breeden	6.5 hrs, 2 events
Rich Heuermann	6.5 hrs, 4 events
Colleen O'Toole	6 hrs, 3 events
Benjamin Winningham	5.5 hrs, 3 events
William Winningham	5.5 hrs, 3 events
Rick Menendez	5 hrs, 2 events
Ann Trull	4 hrs, 2 events
Bradley Waller	4 hrs, 2 events
John Boncek	4 hrs, 2 events
Lee Halbeck	4 hrs, 2 events
Richard Jennings	4 hrs, 2 events
Eric Kovach	3.5 hrs, 2 events
Angie Johnson	2 hrs, 1 event
Chris Nobbe	2 hrs, 1 event
Connie Gleason	2 hrs, 1 event
Dale Engelbrecht	2 hrs, 1 event
Daniel Corso	2 hrs, 1 event
Evan Schmitz	2 hrs, 1 event
Gaylene Engelbrecht	2 hrs, 1 event
Gregory Rigelman	2 hrs, 1 event
Jeremy Gibson	2 hrs, 1 event
Mark Fedde	2 hrs, 1 event
Randy Gettman	2 hrs, 1 event
Tom Keutzer	2 hrs, 1 event
William Neubert	1.5 hrs, 1 event
Bill Biermann	1 hrs, 1 event
James Twellman	1 hrs, 1 event
Nathan Biermann	1 hrs, 1 event
Nicholas Kirschman	1 hrs, 1 event



Brian Mills explains the operation of the Library Telescope at one of the staff training sessions for the libraries.



Night Sky Network Outreach Volunteer Awardees in attendance at the March Meeting. Front: Rick Menendez  
2nd Row: Larry Campbell, Rich Fefferman, John Beaury, Cook Feldman, Don Ficken, Jim Small, Bill Winningham  
Back: Rich Heuermann, Brian Mills

### Is the Most Massive Star Still Alive? by Ethan Siegel

The brilliant specks of light twinkling in the night sky, with more and more visible under darker skies and with larger telescope apertures, each have their own story to tell. In general, a star's color correlates very well with its mass and its total lifetime, with the bluest stars representing the hottest, most massive and *shortest-lived* stars in the universe. Even though they contain the most fuel overall, their cores achieve incredibly high temperatures, meaning they burn through their fuel the fastest, in only a few million years instead of roughly ten billion like our sun.

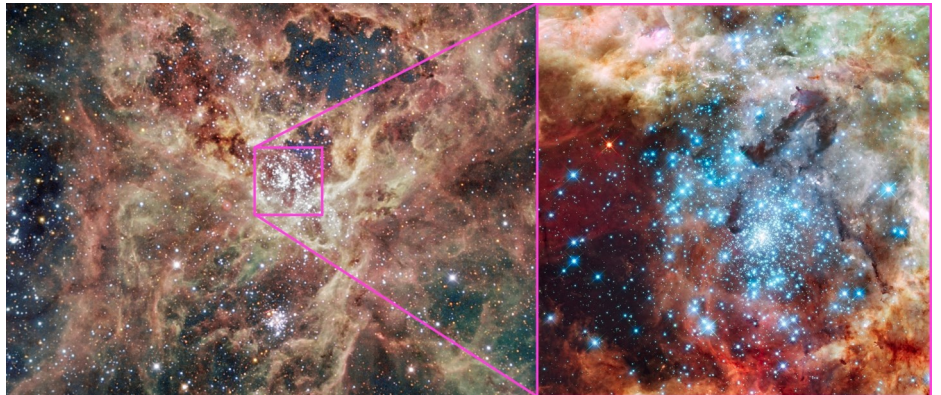
Because of this, it's only the youngest of all star clusters that contain the hottest, bluest stars, and so if we want to find the most massive stars in the universe, we have to look to the largest regions of space that are actively forming them right now. In our local group of galaxies, that region doesn't belong to the giants, the Milky Way or Andromeda, but to the Large Magellanic Cloud (LMC), a small, satellite galaxy (and fourth-largest in the local group) located 170,000 light years distant.

Despite containing only one percent of the mass of our galaxy, the LMC contains the Tarantula Nebula (30 Doradus), a star-forming nebula approximately 1,000 light years in size, or roughly seven percent of the galaxy itself. You'll have to be south of the Tropic of Cancer to observe it, but if you can locate it, its center contains the super star cluster NGC 2070, holding more than 500,000 unique stars, including many hundreds of spectacular, bright blue ones. With a maximum age of two million years, the stars

in this cluster are some of the youngest and most massive ever found.

At the center of NGC 2070 is a very compact concentration of stars known as R136, which is responsible for most of the light illuminating the entire Tarantula Nebula. Consisting of no less than 72 O-class and Wolf-Rayet stars within just 20 arc seconds of one another, the most massive is R136a1, with 260 times the sun's mass and a luminosity that outshines us by a factor of *seven million*. Since the light has to travel 170,000 light years to reach us, it's quite possible that this star has already died in a spectacular supernova, and might not even exist any longer! The next time you get a good glimpse of the southern skies, look for the most massive star in the universe, and ponder that it might not even still be alive.

Images credit: ESO/IDA/Danish 1.5 m/R. Gendler, C. C. Thöne, C. Féron, and J.-E. Ovaldsen (L), of the giant star-forming Tarantula Nebula in the Large Magellanic Cloud; NASA, ESA, and E. Sabbi (ESA/STScI), with acknowledgment to R. O'Connell (University of Virginia) and the Wide Field Camera 3 Science Oversight Committee (R), of the central merging star cluster NGC 2070, containing the enormous R136a1 at the center.



### Volunteer to Serve on the Membership Recognition Committee by Larry Campbell

A Membership Recognition Committee has been formed and an email address ([recognition@slasonline.org](mailto:recognition@slasonline.org)) has been set up so that recommendations can be submitted to the committee. The chairman, Larry Campbell, is seeking committee members to begin the task of deciding how best to recognize the many volunteers within SLAS who donate so much time and effort to our society. If you have any experience with any recognition programs with any organization (astronomical or otherwise), please contact Larry and volunteer to serve on this committee. However, experience is not a prerequisite to serving on the committee.



**Two telescopes donated to SLAS**

**Mark Jones**

SLAS received two more telescope through public donations. The first scope is a Meade Polaris Digital DS-60mm Refractor. It came with a tripod, accessory tray, a 90-degree angle diagonal, 25mm, 12.5mm and 4mm eyepieces and a 3X Barlow. All eyepieces are the 0.965" Japanese standard size. It did not come with the optional electronic controller. The dew shield is missing off from objective lens and there is no dust cap. The condition of this scope prevents it going into our Loaner Scope Program and makes a good candidate for resale.

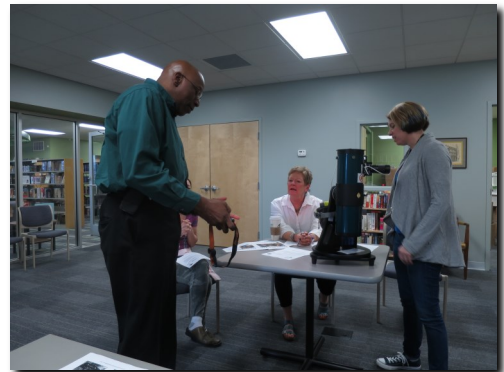


The second scope is a Celestron PowerSeeker 127 Reflector. This telescope is on a manual equatorial mount. The scope has 1 1/4" focuser and one 20mm Kellner eyepiece. The optics are clean and but need collimation. All parts appear functional and in good condition. The telescope will likely go into our Loaner Scope program.



Above: Venus and the Pleiades - Photo by Mark Jones 2 second exposure at f/5 170mm lens at ISO 6400

Below: Rich Heuermann speaks at the March SLAS meeting.



Above Right: Frank Mack demonstrates the headlamp at the library telescope staff training session.

Right: 8th grade students attending a campout at Villa Duchesne High School take a look at Venus.



Left: Ben Winningham with the students from Villa Duchesne

**St. Louis Astronomical Society**  
**Balance Sheet**  
As of March 31, 2015

7:07 AM  
04/13/15  
Accrual Basis

**St. Louis Astronomical Society**  
**Profit & Loss Budget vs. Actual**  
January through March 2015

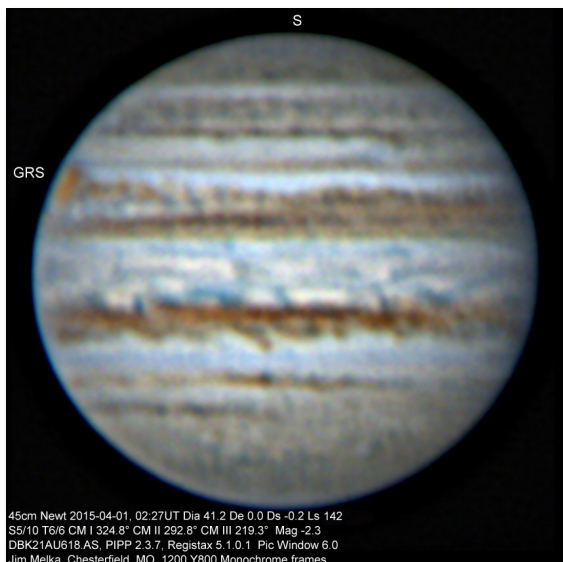
	<u>Dec 31, 14</u>	<u>Mar 31, 15</u>
<b>ASSETS</b>		
<b>Current Assets</b>		
<b>Checking/Savings</b>		
Checking - First Bank	5,161.12	4,448.54
Deposit, Certificate of	20,068.06	20,078.18
Library Telescope Escrow*	1,660.10	6,821.11
Merchandise Change Fund	20.00	20.00
PayPal	82.81	0.00
Savings - First Bank	3,359.27	5,359.87
YMCA Trout Lodge Escrow	542.87	542.87
<b>Total Checking/Savings</b>	<b>30,894.23</b>	<b>37,270.57</b>
<b>Other Current Assets</b>		
Inventory Asset	1,614.22	1,614.22
Undeposited Funds	261.95	0.00
<b>Total Other Current Assets</b>	<b>1,876.17</b>	<b>1,614.22</b>
<b>Total Current Assets</b>	<b>32,770.40</b>	<b>38,884.79</b>
<b>Fixed Assets</b>		
Accum Depr - Office Equip	(216.65)	(216.65)
Office Equipment	216.65	216.65
<b>Total Fixed Assets</b>	<b>0.00</b>	<b>0.00</b>
<b>TOTAL ASSETS</b>	<b>32,770.40</b>	<b>38,884.79</b>
<b>LIABILITIES &amp; EQUITY</b>		
<b>Liabilities</b>		
<b>Current Liabilities</b>		
Accounts Payable	167.90	0.00
<b>Total Current Liabilities</b>	<b>167.90</b>	<b>0.00</b>
<b>Total Liabilities</b>	<b>167.90</b>	<b>0.00</b>
<b>Equity</b>		
Opening Bal Equity	8,137.66	8,137.66
Retained Earnings	22,221.50	24,464.84
Net Income	2,243.34	6,282.29
<b>Total Equity</b>	<b>32,602.50</b>	<b>38,884.79</b>
<b>TOTAL LIABILITIES &amp; EQUITY</b>	<b>32,770.40</b>	<b>38,884.79</b>

	<u>Jan - Mar 15</u>	<u>Budget</u>	<u>\$ Over Budget</u>
<b>Ordinary Income/Expense</b>			
<b>Income</b>			
Magazine Subscription	597.50	433.60	163.90
Membership Dues	1,315.00	980.00	335.00
<b>Merchandise Sales</b>			
General Merchandise (Tyson raffle)	154.00	0.00	154.00
Merchandise Sales - (Infinity T's)	150.00	0.00	150.00
<b>Total Merchandise Sales</b>	<b>304.00</b>	<b>0.00</b>	<b>304.00</b>
<b>Total Income</b>	<b>2,216.50</b>	<b>1,413.60</b>	<b>802.90</b>
<b>Cost of Goods Sold</b>			
Magazine Subscriptions	597.50	433.60	163.90
<b>Merchandise</b>			
General Merchandise (Tyson raffle)	135.35	0.00	135.35
Merchandise Sales - (Infinity T's shipping cost)	16.52	30.00	(13.48)
<b>Total Merchandise</b>	<b>151.87</b>	<b>30.00</b>	<b>121.87</b>
<b>Total COGS</b>	<b>749.37</b>	<b>463.60</b>	<b>285.77</b>
<b>Gross Profit</b>	<b>1,467.13</b>	<b>950.00</b>	<b>517.13</b>
<b>Expense</b>			
Programs & Events	829.54	1,025.00	(195.46)
Newsletter	66.72	45.00	21.72
Library expense	10.46	75.00	(64.54)
Loaner Scopes*	13.35	1,050.00	(1,036.65)
Insurance	380.00	380.00	0.00
Website		135.00	(135.00)
Administrative Expenses	349.95	292.00	57.95
<b>Total Expense</b>	<b>1,650.02</b>	<b>3,002.00</b>	<b>(1,351.98)</b>
<b>Net Ordinary Income</b>	<b>(182.89)</b>	<b>(2,052.00)</b>	<b>1,869.11</b>
<b>Other Income/Expense</b>			
<b>Other Income</b>			
Donations (member + Star Party)	1,350.05	0.00	1,350.05
Interest Income	10.72	25.00	(14.28)
LTP Receipts**	10,075.00	0.00	10,075.00
<b>Total Other Income</b>	<b>11,435.77</b>	<b>25.00</b>	<b>11,410.77</b>
<b>Other Expense</b>			
LTP Disbursements**	4,970.59	0.00	4,970.59
<b>Total Other Expense</b>	<b>4,970.59</b>	<b>0.00</b>	<b>4,970.59</b>
<b>Net Other Income</b>	<b>6,465.18</b>	<b>25.00</b>	<b>6,440.18</b>
<b>Net Income</b>	<b>6,282.29</b>	<b>(2,027.00)</b>	<b>8,309.29</b>

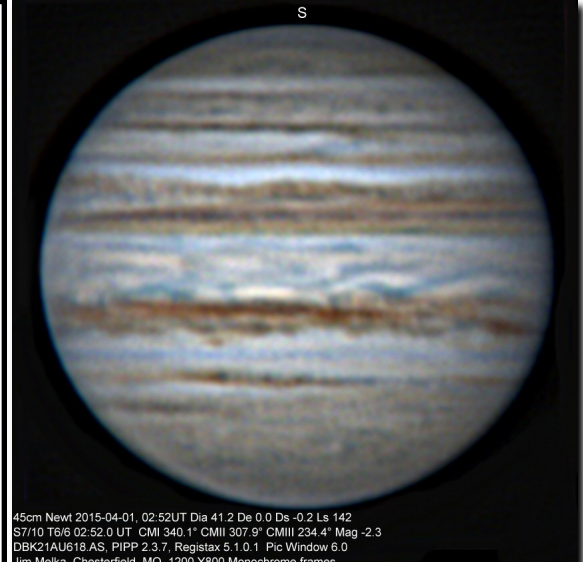
\* Funds restricted for the Library Telescope Program. \$1,660 of the 2015 balance is carried over from the end of 2014.

\* Budget reflects membership vote to purchase 4 Orion Starblasts for the Loaner Program

\*\* LTP receipts exceed disbursements temporarily due to timing differences between donations and purchases, once purchases are reimbursed, the LTP escrow is expected retain a small residual balance.



Jupiter on April 01, 2015  
Image with Great Red Spot (GRS) on the left limb was recorded in Very Good Seeing (S5). The other image was recorded in Very Fine Seeing (S7) that is rare in the Midwest. Note: Small features in the GRS image are even smaller in the other image recorded 25 minutes later. Jupiter rotates from right to left with South at the top. Warm temps with more humidity may account for the much above average seeing conditions



## St. Louis Astronomical Society Executive Board Meeting Minutes for February 12, 2015

### 1. Opening Activities:

Meeting called to order at 7:19pm Attendees" Jim Small, Brad Waller, Tom Nickelson., Bill Winningham., Paul Baldwin, Mark Jones. Feb minutes were sent out before the meeting. Minutes were reviewed and approved. Brad motioned to approved minutes, second by Tom. Motion passed

**2. External Business SLSC** Friday, April 3: SLSC is not available for Astronomy Day on April 25<sup>th</sup>. Kirkwood Library contacted as an alternative. Lynn Bosso 314-821-5770 ext 1011 lbosso@kirkwoodpubliclibrary.org

**Next board meeting:** April 9, May 7, June 11, July 9, August 6, Sept 10, Oct 8, Nov 12, Dec 10. Need Don Ficken to check YMCA dates.

### 3. Director Reports:

**President: Goals for 2015 and beyond. The beginnings of a strategic plan**

1. **Attract new members – We need to plans to increase our base membership significantly during the course of the year. Number? 50? 100?**
2. **Retain members – We need plans to retain members that join beyond one year. The retention rate for 2013 was only 20%**
3. **Get members involved – We need significant plans to involve our members in both programs and as volunteers.**

**Homemade Fest.** The event at Kirkwood went well. About 25 people attended. Everyone needs to give their homemade fest receipts to Bill.

**2017 Eclipse committee –** Eclipse 2017 Survey is set up regarding a workshop to take place October 3<sup>rd</sup>, 2015. Spoke with Bob Baer from SIU – Carbondale regarding workshop and the eclipse. Invited Dr. Baer to speak at our meeting this summer.

**Vice President –Paul Baldwin:** March Speaker will be Rich Heuermann on Asteroids and Ceres. April - Dr. Joseph Marcus M.D. who will talk about Comet 67P And the Rosetta Spacecraft"; May - Kathrin Powell on "All the Mars Rovers and What They Have Discovered"; June New Horizons Preview July Pluto results

**Speaker Ideas – Bob Baer possible speaker Jim will check with Baer for June, Brad will check with Cahokia Mounds, they have a possible speaker**

**Astro 101: Topic:** March – Brad Star Fleet Command Update

**Secretary – Mark J** At the Feb general meeting the Motion passed for \$1000 to be added the Loaner scope budget to buy members only library telescope passed. See the Feb board meeting minutes for text of motion.

#### Treasurer/ALCor –

1. Insurance renewal paid \$380 (as budgeted) – (due 5/1/2015)
2. 2014 Form 990-N "e-postcard" filed – (due 5/15/2015)
3. Donation thank you/receipt sent to William Neubert
4. Donation check from LaSalle MS deposited by Jim Small

Positive net income YTD +\$547 Income up due to donations and new members joining March/April will see lot of cash flow for the Library Telescope Program

**Hospitality – vacant** Tom volunteered to do hospitality in March. Mark has soda and chips that he needs to give to Tom prior to meeting.

#### Board member at large reports

**Larry Campbell** Recognition program report. No report

**Tom Nickelson:** Disabled telescope program. Tom will hand over telescope to Mark.

**Brad Waller:** Raffle of two tickets to see Neil deGrasse Tyson has broken even. All sales from here on are profit. Drawing will be at April meeting.

New Members report Suggestions for new member welcome packet.

#### Input desired.

Welcome packet Tom will schedule new member packet meeting, in April. Jim, Brad, Mark,

NSN guide including RSVP's	Small
Loaner telescope and list	Jones
Dialogs	Jones
Newsletter	Small
Maps	Campbell
Library	Small
Calendar for upcoming events	Small
Sky map	Jones
Planisphere	Ficken
Observing for the month	Jones
Decal	Small
merchandise	Small
Resources	Small
Pamphlet from Astronomy	Small

New members meeting. 6:45pm before April 17<sup>th</sup> meeting.

New member survey. Brad will coordinate survey questions. Board members must send their questions by Friday March 20th

### 4. Committee Reports: If needed

**Library Telescope Program:** Build will take place April 11<sup>th</sup> at Parkway West H.S. A press release is planned for May 1.

**Membership –** membership is up to 156, highest since 2012

**Merchandise –** will get in touch with Johnny Mac's this week. Infinites now set up to make SLAS logo.

**Telescope Making –** no report submitted

**Librarian –** No changes

**Newsletter –** Deadline is Saturday, March 14th for articles. Newsletter will come out Sunday. Need pics for Homemade Fest

**Website –** www.slasonline.org/joomla

**Night Sky Network –** Still have issues with emails to ATT customers. Many star parties on the list. Be sure to volunteer!

**SLASdialogs –** no report

**Dark Site –** Campout planned for March 20-22 at Council Bluff Lake south of Potosi, MO

**Loaner Equipment –** no report

**Publicity –** Press release sent for March meeting

**Observing Programs –** Jerry Loethen will take over as Chair person

**Star Parties:** Upcoming star parties: 3/23 -Ed Jones, 3/31 Schlafly, 4/1 – UC, 4/1 - UC library 4/3 – SLSC, 4/9 SLAS bd meet., 4/10 Hener PL, Lib staff training, telescope team leader planning, 4/11 - Lib Telescope build, 4/20 Ed Jones, 4/21 Star Gazing at PL Central, 4/22 Francis Park, 4/23 Manchester, 4/25 Astronomy Day – Kirkwood Library day? Babler at night.

### 5. Old Business

Should Hospitality be split into the board position of Membership and the committee head of Hospitality? Board decided to table until after May elections

Looking at our by-laws and the possible reorganization of the operating structure of the Society. Table this until Fall

### 6. New Business None

### 7. Closing Activities

Meeting adjourned 9:02pm

## **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*

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 April!

**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**

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**

5/11/2015	6/8/2015	7/13/2015	8/10/2015
9/7/2015	10/5/2015		

### **Pattonville Observatory Public Viewing Dates**

May 1, 2015	Friday 9:00-11:00 p.m.
May 22, 2015	Friday 9:00-11:00 p.m.

## **SLAS EVENTS**

### **April**

**14 Tues** Brentwood Library Staff, St Charles  
Deer Run Library Staff

**15 Wed** Grand Glaize Library Staff, Roger  
Phillips Lecture

**16 Thur** Bridgeton Library Staff

**17 Fri** Thornhill Library Staff,  
SLAS regular meeting

**18 Sat** SLAS dark sky Observing

**20 Mon** Edward Jones YMCA, St. Charles  
Corp Pkwy Library Staff

**21 Tues** St Louis Central Public Library Star  
Party, St Charles Spencer Library  
Staff

**22 Wed** Francis Park, Richmond Heights  
Library Staff

**23 Thur** Manchester Park, St Charles  
Kathryn L Library Staff, Jefferson  
County NW Library Staff

**24 Fri** Library Telescope Team Planning

**25 Sat** Astronomy Day, Library Telescope  
Build, AD Night Skies Over Babler

**27 Mon** Florissant Branch SLCL Star Party,  
Jeffco Windsor Library Staff

**29 Wed** St. Charles Middendorf K Library  
Staff

### **May**

**1 Fri** SLSC Public Telescope Viewing

**7 Thur** SLAS board meeting

**8 Fri** Central Elem, Union, MO star party

**9 Sat** Hawn State Park star party

**15 Fri** SLAS regular meeting

**16 Sat** SLAS dark sky observing

**MAY 29-31** MSRAL at Univ AR - Little Rock

**LET US KNOW YOU ARE COMING!**

To RSVP for any of these events log in to the Night Sky Network and submit your RSVP. If the event is canceled, you will be notified immediately according to the preferences you have selected.

### **SLAS Merchandise Available**

SLAS merchandise is now set up for embroidery at **Headz n Threadz** at <https://hnt.threadthis.com/>

There are two locations:


**Galleria:** 2495 St. Louis Galleria, St. Louis, MO 63117  
Telephone: 314.862.2695  
galleria@headznthreadz.com

**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 Soon to be Available at Infini-tees and  
Johnny Mac's**





# 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>

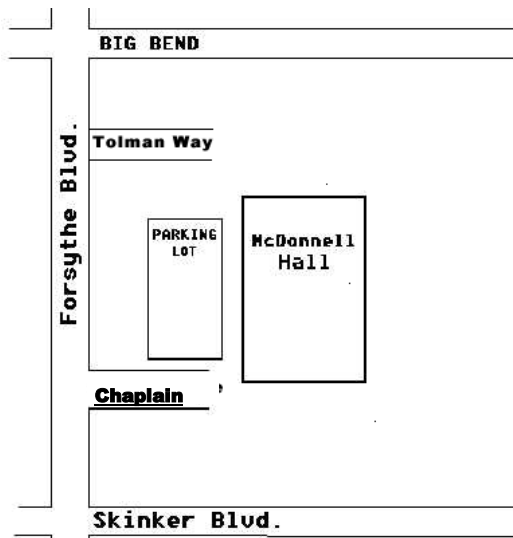


**Who We Are and What We Do**

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

