

THE EVENT HORIZON



ST. LOUIS ASTRONOMICAL SOCIETY

Devoted to the Interest and Advancement of the Science of Astronomy

VOLUME 25, Issue 5
May, 2015

Opportunity and Water on the Meridiani Plains

by
Kathryn Powell

Kathryn Powell of Washington University, will be featured at the May meeting of the St. Louis Astronomical Society. The meeting will begin at 7:30 PM Friday, May 15, in McDonnell Hall, Room 162, on the Washington University campus, Saint Louis, MO 63130.

Although the five robot spacecraft now orbiting Mars provide global coverage in great detail of the Martian surface and atmosphere, the two functioning Mars rovers are the hands-on robotic geologists. The Opportunity rover, now in its eleventh year of operation, is studying the rim of Endeavour crater. It continues to

uncover pieces of the past history of Mars, especially related to the presence and disappearance of water. Kathryn Powell will talk about the Opportunity rover mission, show some of the images of the surface of Mars, and highlight some of their important discoveries.

Kathryn Powell is a PhD student in the Department of Earth & Planetary Sciences at Washington University in St. Louis. She earned her B.S. in Astrophysics from Rice University in 2013, and her A.M. in Earth & Planetary Sciences from Wash U in 2015. Kathryn is a member of the Mars Exploration Rover Opportunity science team. Her research at Wash U focuses on reconstructing ancient Martian environments using remote sensing and rover observations. She aspires to lead the next generation of robotic exploration in the solar system.

Mid States Region



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Astronomy Announces SLAS as 2014 Out-of-this-world Award Winner

Out of more than 15 entries, the St. Louis Astronomical Society has won *Astronomy*'s annual award honoring astronomy outreach programs. The sheer number of events SLAS held throughout the year was one of the major factors that led to winning the \$2500 award. Another factor was the success of the Library Telescope program initiated last fall.

In the spending plan that was submitted with the entry for the award, the funds will be used to upgrade our professionalism by improving our visibility at star parties with better dis-

plays, helping with the Library Loaner Telescope program and getting the public ready for the 2017 total solar eclipse that will pass through Missouri.

About the entries, David J. Eicher, editor of *Astronomy* magazine said "All the award submissions were top-notch, and it made picking the winner a tough choice." "With each year, it seems that astronomy clubs are doing more and more to help people enjoy our hobby as well as understand a bit of the science behind it."

SLAS is honored to be selected for the award. Thanks so much to Rich Heuermann and Don Ficken who worked hard on the entry and developing the plan for the use of the funds. Click below to read the article in *Astronomy*. [Astronomy Magazine Article](#)

President's Corner

by
Jim Small

Astronomy Day was held April 25 at Kirkwood Library. It wasn't the huge crowd we usually enjoy at the Science Center, but visitors were steady and the staff at Kirkwood certainly enjoyed having us there. We gave away 6 Galileoscopes and had between 50 and 100 patrons stop by. Thanks to Cook Feldman, John Beaury, Larry Campbell, and Bill and Ben Winningham for assisting with the displays and events for the day.

The build for the next phase of the Library Telescope program took place at Parkway West High School on Saturday, May 9 and should have been in the Guinness Book of records! We have nearly 50 volunteers participate and 50 telescopes were modified for use in the Library Telescope program. Many thanks to Don Ficken for organizing the event, Colleen O'Toole for hosting the event in her labs at Parkway West High School, students from Parkway West for assisting, and of course, all the members of SLAS and ASEM. Thanks as well to Representative Deb Lavender for visiting the process.

The St. Louis Science Center held their volunteer recognition dinner Thursday and many SLAS members were invited to attend. Thanks to the SLSC for providing such a nice event AND for giving all the volunteers a re-

ally nice fleece jacket, which I am sure will come in handy for some of those cold First Night events in the future!

Elections are this month and we have a full slate of nominations for offices for next year. President-Jim Small, Vice President-Paul Baldwin, Secretary-Mark Jones, Treasurer-Bill Winningham, Hospitality-Larry Campbell, and Board Member at Large—Brian Mills. Thanks to those people willing to serve the society in such a critical area! I look forward to working with you this year.

NEAF was great as always this year with lots of vendors and many great speakers. As always, it's a great pleasure to talk to many of the people you have learned about in your astronomy endeavors but have never met. I also attended the astroimaging conference NEAIC and met many of the top imagers in the world. Perhaps the most interesting set of talks was a talk that promoted one-shot color CMOS cameras and another that insisted that monochrome and filters were the way to go. It seems like there may not be a big difference.

There are **Star Parties and Events** coming in the next month. **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.

MSRAL CONVENTION!

Come join us at:

**The Mid-States Region of the
Astronomical League Convention**

Friday, May 29– Sunday, May 31, 2015

University of Little Rock, AK

Registration Page is Open!

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

Join other SLAS members already going! See you there!



Above: The main floor of the Northeast Astronomy Forum (NEAF) at Rockland Community College gymnasium. A dangerous place for any unchaperoned astronomer with a credit card! **Below left,** some of the characters you might run into on the floor. That's Vic Maris of Stellarvue on the right in the kilt. **Below right,** Chris Go, one of the premier planetary imagers, uses Firecapture to image



Left: Larry Campbell shows a patron Mars through his 12" Sky-watcher.
Right: Cook Feldman and Ben Winningham with one of the 6 winners of Galileoscopes at Astronomy Day held at Kirkwood Library





Above and Left: Two tables of SLAS members enjoy the volunteer dinner at the Science Center. Right: Joe McHugh assists a volunteer to the table, Frank Mack enjoys the dinner.



Perhaps the Largest Library Telescope Build Ever!



Above: Delivery to Don Ficken's House. Right: Parkway West students assist with moving the telescopes to Colleen O'toole's lab.



Left: Telescopes fill the lab!



Right: Don Ficken gives organization instructions before the build begins.



Above left: HALF of the telescopes waiting to be completed **Above right:** Collimating the telescopes in front of an appropriate mural !



Above left: The eyepiece glue team at work **Above right:** Equipping headlights with batteries
Below: The mirror configuration team preparing the mirrors for remounting and collimation.





Above left: West students get instruction. **Above right:** A little soldering in action. **Below left:** burning string ends!
Below right: Cleaning mirrors.



Below left. Quality control check! **Below center:** more quality control checks.
Below right: HEY! What is that laser collimator red spot doing on the ceiling??!! Yikes! Ok, start cranking those adjustments!





Above left: West student sticker team! **Above right:** putting together kits from leftover eyepieces, et.
Below left: Lunch!! **Below right:** Colleen O'Toole shakes hands with Representative Deb Lavender (right) as Don introduces Deb to the library telescope. **Bottom:** Group shot of volunteers who worked on the build. Thanks to all who participated. Scopes are being delivered to libraries as you read this! A job well done!



2:30 PM
05/08/15
Accrual Basis

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

	Jan - Apr 15	Budget	\$ Over Budget
Ordinary Income/Expense			
Income			
Magazine Subscription	630.45	667.40	(36.95)
Membership Dues	1,620.00	1,255.00	365.00
Merchandise Sales	343.48	0.00	343.48
Total Income	2,593.93	1,922.40	671.53
Cost of Goods Sold			
Magazine Subscriptions	630.45	667.40	(36.95)
Merchandise	151.87	30.00	121.87
Total COGS	782.32	697.40	84.92
Gross Profit	1,811.61	1,225.00	586.61
Expense			
Programs & Events	851.96	1,116.66	(264.70)
Newsletter	66.72	60.00	6.72
Library expense	10.46	75.00	(64.54)
Loaner Scopes	1,013.35	1,050.00	(36.65)
Insurance	380.00	380.00	
Website		135.00	(135.00)
Administrative Expense	352.62	389.33	(36.71)
Total Expense	2,675.11	3,205.99	(530.88)
Net Ordinary Income	(863.50)	(1,980.99)	1,117.49
Other Income/Expense			
Other Income			
Donations			
SLAS Club Members	1,000.05	0.00	1,000.05
Donations - Other	450.00	0.00	450.00
Total Donations	1,450.05	0.00	1,450.05
Interest Income	10.94	33.00	(22.06)
LTP Receipts	10,575.00	0.00	10,575.00
Non-Operating Income**	2,500.00	0.00	2,500.00
Total Other Income	14,535.99	33.00	14,502.99
Other Expense			
Astro Mag Award Disbursements**	682.95	0.00	682.95
LTP Disbursements	11,844.79	0.00	11,844.79
Total Other Expense	12,527.74	0.00	12,527.74
Net Other Income	2,008.25	33.00	1,975.25
Net Income	1,144.75	(1,947.99)	3,092.74

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

** Non-operating income includes a \$2,500 award from Astronomy Magazine. \$683 of the award proceeds have been spent to date, the remaining proceeds must be spent by April of 2016.

St. Louis Astronomical Society
Balance Sheet
As of April 30, 2015

	Dec 31, 14	Apr 30, 15
ASSETS		
Current Assets		
Checking/Savings		
Astronomy Magazine Award*	0.00	1,817.05
Checking - First Bank	5,161.12	3,846.12
Deposit, Certificate of	20,068.06	20,078.18
Library Telescope Escrow**	1,660.10	396.91
Merchandise Change Fund	20.00	20.00
PayPal	82.81	71.81
Savings - First Bank	3,359.27	5,360.09
YMCA Trout Lodge Escrow	542.87	542.87
Total Checking/Savings	30,894.23	32,133.03
Other Current Assets		
Inventory Asset	1,614.22	1,614.22
Undeposited Funds	261.95	0.00
Total Other Current Assets	1,876.17	1,614.22
Total Current Assets	32,770.40	33,747.25
Fixed Assets		
Accum Depr - Office Equip	(216.65)	(216.65)
Office Equipment	216.65	216.65
Total Fixed Assets	0.00	0.00
TOTAL ASSETS	32,770.40	33,747.25
LIABILITIES & EQUITY		
Liabilities		
Current Liabilities		
Accounts Payable	167.90	0.00
Total Current Liabilities	167.90	0.00
Total Liabilities	167.90	0.00
Equity		
Opening Bal Equity	8,137.66	8,137.66
Retained Earnings	22,221.50	24,464.84
Net Income	2,243.34	1,144.75
Total Equity	32,602.50	33,747.25
TOTAL LIABILITIES & EQUITY	32,770.40	33,747.25

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

** Funds from Astronomy Magazine Award, available until 4/10/2016.

Note from Lois Fitter's Daughter, Mara

A while back I received a note from Mara Fitter, Lois' daughter. This is in response to the book we signed and forwarded to her in Florida. Below is part of the note. Jim Small.

Hi Jim,

My name is Mara Fitter and I am Lois Fitter's daughter. I wanted to thank you so very much for the shirt and amazingly thoughtful book everyone signed and sent to my Mom. I read every single greeting to her and it made her happy to know her friends were thinking about her. Mom truly loves SLAS and, from my perspective, was never happier than when she was highly involved as President and giving star parties. You have no idea how much that means to me and I thank you all from the bottom of my heart.

ALCON 2015

July 8-11

Las Cruces, New Mexico

<https://alcon2015.astroleague.org/>

St. Louis Astronomical Society Executive Board Meeting Minutes for April 9, 2015

1. Opening Activities: Read and approve minutes from March. Meeting called to order 7:02. Paul Baldwin, Jim Small, Larry Campbell, Tom Nickelson, Brad Waller, Mark Jones, Bill Winningham. March minutes were distributed before the meeting. Motion to approve the March minutes made Larry, second by Tom. Motion passed and minutes approved.

2. External Business SLSC Kirkwood Library has been confirmed for Astronomy Day April 25, 2015. 10-4pm. Jim has lead on this event. Jim will have brochures. Babler State Park that night. SLSC PTV May 1st no report on what the movie is. **Next board meeting:** May 7, June 11, July 9, August 6, Sept 10, Oct 8, Nov 12, Dec 10

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.

Elections: Which officers plan to run again? Pres- Jim Small VP – Paul Baldwin Sec – Mark Jones Treas- Bill Winningham Hosp – Larry Campbell B15- Board term is over Larry now running for Hospitality. Need nominee for new Board member B16- Brad Waller (1 year left on term) B17 – Tom Nickelson (2 yrs left on term)

Vice President –Paul Baldwin: April - Dr. Joseph Marcus M.D. who will talk about Comet 67P And the Rosetta Spacecraft” May - Kathryn Powell on “All the Mars Rovers and What They Have Discovered” June Bill Iseminger from Cahokia Mounds: Indian Astronomy July Pluto results **Ideas for July or August- Bob Baer and Matt Penn. Paul will contact Rich Heuermann also.**

Astro 101: Topic: Volunteers and Night Sky Network? Brad Volunteered Mission Update if there is enough time at end of meeting.

Secretary – Mark J No report

Treasurer/ALCor – Bill will not be at the May Board Meeting. Jim will check on website fees

Hospitality – Larry volunteered to do Hospitality for April

Board member at large reports

Larry Campbell (2015) Recognition program report Wayne and Thane have agreed to serve on the committee. Larry has also been active with Library Telescope Program and First Friday.

Tom Nickelson (2017): Disabled telescope program report. Scope passed on to Mark Jones will pass on tripod and extra parts. Plan to present A101 at May or June. Will plan on creating a Training Program for using the equipment.

Brad Waller (2016): New Members report. Suggest Plan on first new member Welcome meeting. Suggestions for new member welcome packet.

We should reduce the number of questions in New Member Survey.

Input desired. Input on the next new membership initiative.

Welcome packet

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. Time? When to start? This month? Social input at meeting?

4. Committee Reports: If needed

Library Telescope Program: Build will take place in April 25, and planned release is May 1

Membership – membership is up to 156, highest since 2012

Merchandise – will get in touch with Johnny Mac's after return from NEAF.

Telescope Making – no report submitted

Librarian – No changes

Newsletter – Deadline is Sunday 4/12 for articles. Newsletter will come out Monday. Need pics for Homemade Fest Could really appreciate a newsletter article

Website – www.slasonline.org/joomla

Night Sky Network – Issues with emails has probably been resolved. We just have to inform folks about the changes. Many star parties on the list. Be sure to volunteer!

SLASdialogs – 83 members

Dark Site – Last month's campout cancelled due to poor weather. A small group went to Whiteside but clouds also prevented observing.

Loaner Equipment – Two new scope donated to SLAS. Photos taken and need to decide to keep or sell them

Publicity – release sent

Observing Programs – Jerry Loethen has been awarded the Southern Sky Telescope observing and the binocular award is pending. Grant Martin will be receiving his Outreach Stellar Award

Star Parties: Mike Malolepszy has resigned as Star Party Coordinator effective immediately. We need an immediate plan to accommodate filling star party requests. Need Mike's checklists.

4/10 Hener PL, Lib staff training, telescope team leader planning, 4/11 – Villa Duchesne, 4/20 Ed Jones, 4/21 Star Gazing at PL Central, 4/22 Francis Park, 4/23 Manchester, 4/25 Astronomy Day – Kirkwood Library, Babler at night.

5. Old Business

Should Hospitality be split into the board position of Membership and the committee head of Hospitality? Looking at our by-laws and the possible reorganization of the operating structure of the Society. Table discussion until after the election.

6. New Business

Motion: I move that SLAS spend up to \$50 for a recognition plaque for our outgoing Star Party Coordinator for his years serving SLAS as Start party coordinator. Cost of plaque will come from the Membership recognition budget. Motion by Mark, second by Tom. Motion passed.

7. Closing Activities

Motion to adjourn by Larry, seconded by Brad.

Meeting adjourned at 9:15pm

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*

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

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

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

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

Pattonville Observatory Public Viewing Dates

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

SLAS EVENTS

May

15 Fri	Hawn State Park
15 Fri	SLAS regular meeting
16 Sat	SLAS dark sky observing
20 Wed	Arnold Rotary Club
23 Sat	Stargazing Crestwood Park
25 Mon	Edward Jones YMCA
27 Wed	Francis Park
28 Thur	Star Party Jeffco Library

MAY 29-31 MSRAL at Univ AR - Little Rock

June

1 Mon	Middendorf Library
1 Mon	Jefferson County Library
5 Fri	Public Telescope Viewing SLSC
11 Thur	SLAS board meeting
13 Sat	SLAS Dark Sky Observing
19 Fri	SLAS regular meeting
20 Sat	Des Peres Park
22 Mon	Star Party at Jeffco Library
22 Mon	Edward Jones YMCA
23 Tue	Maplewood Library Star Party
24 Wed	Francis Park Stargazing
25 Thur	St. Ch. Library Kathym Linn
25 Thur	Stargazing at the Arch
27 Sat	Night Sky Over Babler

July

3 Fri	NO PUBLIC TELESCOPE VIEWING
8-11	ALCON - Las Cruces
9 Thur	SLAS board meeting

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 Wunningham, (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 Wunningham* 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
 lirrbrarytelescope 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
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 newsletter at slasonline.org

Observing Programs *Mark Jones* 636-394-2342
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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>

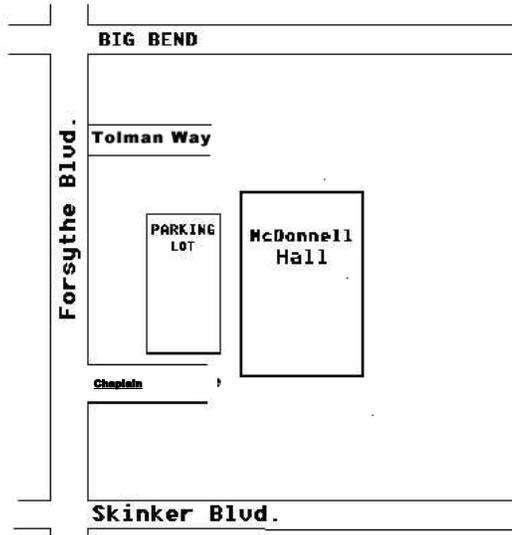


Who We Are and What We Do

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