

THE EVENT HORIZON



ST. LOUIS ASTRONOMICAL SOCIETY

Devoted to the Interest and Advancement of the Science of Astronomy

VOLUME 26, Issue 8
August, 2016

Darkness At True Noon: Missouri's Total Eclipse of the Sun

by
**John Wharton,
St. Louis Science Center**

John Wharton, of the Saint Louis Science Center, will be featured at the August meeting of the St. Louis Astronomical Society. The meeting will begin at 7:30 PM Friday, August 19, in McDonnell Hall, Room 162, on the Washington University campus, Saint Louis, MO 63130. McDonnell Hall is accessible from Forsyth Boulevard via Tolman Way.

The first total eclipse of the Sun visible from the Saint Louis area since 1442 will occur on August 21, 2017. The Moon will completely cover the brilliant visible surface of the Sun for up to 2 minutes and 43 seconds for observers within a path that stretches from Oregon to South Carolina, but that is only about seventy miles wide. Observers in this narrow path will see the sky darken, feel the temperature drop, and, view the Sun's glowing corona –its faint upper atmosphere. The corona is only visible

to the unaided eye during a total solar eclipse. The corona is a region of extremely rarified gas, heated to millions of degrees, and shimmering as it shines against a darker than twilight sky. Mr. Wharton will explain why and when a total solar eclipse occurs and how to view the hour-long partial eclipse phases safely. He will also show the path of the total solar eclipse through Missouri, particularly through the Greater St. Louis area.

John Wharton is Managing Director of Facility Operations for the Saint Louis Science Center. He came to Saint Louis at the inception of the Science Center in 1983, having been selected to be the Center's first Planetarium Director. Mr. Wharton represents the Science Center as a member of the Saint Louis Eclipse 2017 Task Force. The Task Force, comprised of representatives from several area colleges and universities, two Metro area astronomical societies, and numerous Missouri city and parks administrators, is assisting government, school, and business managers and the general public with preparations for the event. More information about eclipse viewing in the Metropolitan St. Louis area is available at www.stlouiseclipse2017.org

Inside This Issue

President's Corner, Glenn Greenway Volunteer Hours	2
Star B Q, Library Telescopes	3
Library Telescope Build	4
Eclipse Events	5
ALCON 2016	6-7
Board Minutes	8
Financials	9
Events	10
Contact	11

The Latest Library Telescope Build Was a Success

The Library Telescope build from August 6 yielded nearly 50 telescopes and brought our total number of telescopes in service to libraries to 131, the most in the nation! Thanks so much to everyone who participated in the build and who continue to make the program a success. Other areas of the nation are interested in the program and places like ASKC, the other SLAS (Salt Lake) and NOVAC (Northern Virginia) are interested in starting the program. See page three for more!

Another Good time at the SLAS Star B Q at Babler State Park

The annual SLAS Star B Q was held at Walnut Grove Picnic Area in Babler State Park Saturday from 3:00pm until about dark. A good time was had by all!

(Continued on page 3)

ALCON 2016 in Alexandria, VA a Success!

The 4 day ALCON conference in the DC area was a great meeting with great tours, excellent speakers and much more! See details inside!

Presidents Corner—Jim Small

We lost Glenn Greenway last Monday. We will certainly miss Glenn, he was a friend to all and really loved astronomy. If you have a photograph of Glenn in action with the outreach he enjoyed, please forward it to me at newsletter@slasonline.org. I would also like to have any anecdotes you might have about Glenn if you could pass them on. We don't have information about services yet for Glenn and I'll pass them on through Night Sky Network and dialogs as soon as I find out.

ALCON was great! Very expensive for the NOVAC group who was the host, but that's to be expected in Washington, DC. The tours were great and included Goddard Space Flight Center, Smithsonian Air and Space museum, Udvar-Hazy Annex, the U.S. Naval Observatory and the Smithsonian Natural History Museum Meteorite collection. The speakers were excellent, especially Charles Bolden, the director of NASA. His talk was inspiring and emotional. The banquet was very good and included both wine and appetizers before the meal.

The latest Library Telescope build was also a big success and that led to a presentation at ALCON which has some big groups interested in starting the program. After ALCON, I attended NOVAC's regular meeting Sunday night and presented about the program to their membership. We are also requested to submit an article to both Sky and Telescope and the Reflector.

The Star-B-Q was also a good time. Many thanks to Mark Jones for all the prep work (he cooked all the meat beforehand) and the games. Thanks also to Rich Heuermann for putting together the annual quiz. We had a good time filling it out and learned a thing or two while grading it! Mark Jones had the top score with 47/50!

Many activities coming up in the next month or two as we pass the One Year Out from the eclipse date on Sunday. We look forward to you getting involved in SLAS in the coming year!



Glennon E. Greenway

Monday, August 16, Glenn Greenway passed at St. Mary's Hospital due to an infection.

I received the notification from Ron Gaus, his pastor, who wrote this about Glenn: "I'm not sure, but I think Glenn was a member of your group and from what he told me, was proud to be in this group in a field he loved his entire life. I ran into Glenn about four years ago and he was a fairly regular attending visitor to our church. I worked with him 40 years ago at a company called St. Louis Ship. Now Glenn's on the other side of those telescopes. Wish him well as he watches down on all of us. Please pass the word along to all who knew him. Thank you. Ron Gaus"

Outreach Volunteers Jan-Aug 6, 2016

Through early August, SLAS members have logged 1122 hours for 93 NSN outreach events!

We are on a pace to exceed our 2015 totals of 1396 hours for 91 events.

Members with 5 or more events can qualify for the Night Sky Network pin. Check NSN for opportunities and sign up today. If you are a member with 4 or less events logged this year there is still time to volunteer.

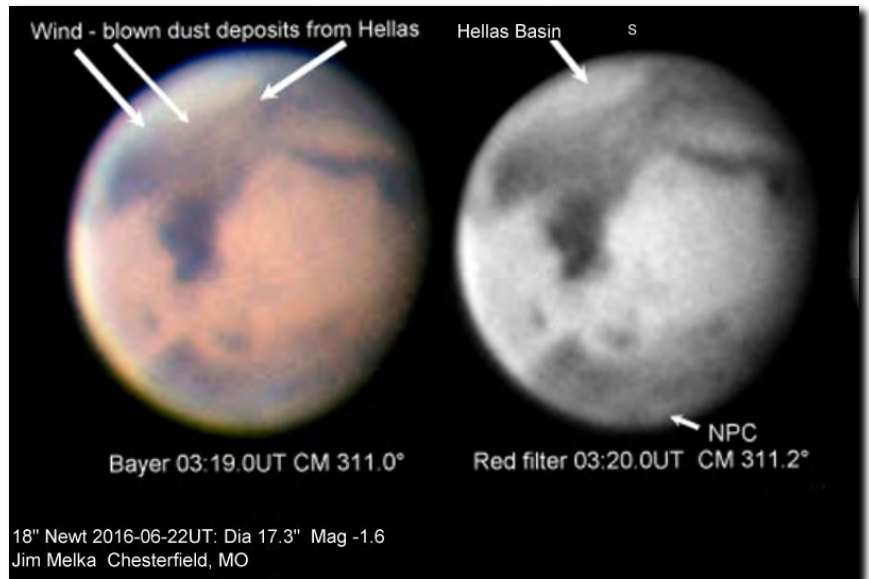
Thank you to all our volunteers!

Donald Ficken	60 events; 156.8 hours
Cook Feldman	32 events; 123.1 hours
Larry Campbell	24 events; 76 hours
Mark Jones	21 events; 73.5 hours
Rich Heuermann	20 events; 72 hours
John Beaury	19 events; 78.5 hours
James Small	15 events; 46.5 hours
Frank Mack	13 events; 41.3 hours
Rick Menendez	12 events; 39.3 hours
Sharon Bertram	10 events; 34.5 hours
Richard Fefferman	9 events; 22.5 hours
Richard Jennings	8 events; 24.5 hours
Bill Biermann	7 events; 16.8 hours
Bill Breeden	5 events; 16 hours
Jim Trull	5 events; 16.5 hours
Robert Drzymala	4 events; 16.5 hours
Jeffrey Strauss	3 events; 10.5 hours
Michelle Birch	3 events; 18 hours
Rita Breeden	3 events; 10 hours

Wayne Clark	3 events; 14 hours
William Neubert	3 events; 12.8 hours
William Winningham	3 events; 10.5 hours
Ann Trull	2 events; 6 hours
Bradley Waller	2 events; 7 hours
Dale Engelbrecht	2 events; 7.5 hours
Donald Snyder	2 events; 4.3 hours
Doug Blum	2 events; 4.5 hours
Edward Frey	2 events; 13 hours
Gaylene Engelbrecht	2 events; 7.5 hours
Gregg Ruppel	2 events; 9 hours
Gregory Gaines	2 events; 9 hours
Gregory Rigelman	2 events; 9.5 hours
Lynn Fee	2 events; 9.5 hours
Robert Beebe	2 events; 10.5 hours
Thomas Schloemann	2 events; 12.5 hours
Alan Sapia	1 events; 7 hours
Brent Buch	1 events; 4.5 hours
Brian Mills	1 events; 6 hours
Cathy Hooper	1 events; 6 hours
Gary Holt	1 events; 7 hours
Gerald Hutchins	1 events; 7 hours
James Griffith	1 events; 2.5 hours
Joseph Schober	1 events; 2.5 hours
Lee Halbeck	1 events; 3 hours
Mark Fedde	1 events; 4 hours
Marlene Bopp	1 events; 8 hours
Michael Callaghan	1 events; 1.5 hours
Michael Malolepszy	1 events; 2 hours
Nancy Clark	1 events; 6 hours
Randy Gettman	1 events; 1.5 hours
Raymond Mueller	1 events; 5 hours
Renee Mettle	1 events; 7 hours

Jim Melka's Mars

From late March through May, members of the Association of Lunar and Planetary Observers have been imaging a different kind of dust event in the enormous impact basin Hellas on Mars. High waves of dust driven by straight-line winds have been recorded traveling generally from South to North until they crash into the North-Northwest 6-mile high wall of Hellas. Then they emerge and are deposited on adjacent dark mare as bright streaks. It is thought that the dust originates in the South polar regions. It is hypothesized that strong winds are formed as CO₂ ice starts to sublimate (goes from solid to gas). The images show the bright dust streaks. *Jim Melka*



(Continued from page 1)



Left: Gathering around the circle at the Star B Q for some pre-meal conversation. **Above:** Enjoying the food. Burgers, hotdogs, pulled bbq chicken, baked beans, and many sides brought by members! Thanks so much for the food prep of all the meat and beans and setup for the BBQ by Mark Jones! Maybe we will have clear skies next year! Mark Jones won the Quiz put together by Rich Heurmann.



Group shot for the team that performed the latest Library Telescope Build on August 6. 48 telescopes were modified bringing the total of modified scopes to 152 with 131 for libraries. The scopes were assembled in near record time as the build was completed and the room cleared by 3:30 pm! A very efficient program that is getting national attention! Watch for articles in both Sky and Telescope and the Reflector.

SLAS Library Telescope Build!



Clockwise from above left:

Decal team applying Moon Map, etc.
Rope Team tying things up.
Working on the secondary
Eyepiece team securing things. Need any 9 or 26mm eyepieces???
Mirror team sees things clearly
Hey, we're astronomers!
Food is NECESSARY!
(thanks for the food team! Couldn't do it without you!)
Fearless leader Don Ficken explaining modifications



Left:
Leaning in to adjusting the Red Dot Finder so the telescope view matches the dot!

Right:
Adjusting the secondary as the first step in collimation of the telescope.

Final Star Testing of all of the scopes was accomplished Saturday evening to insure all scopes were in good shape.



Total Solar Eclipse: One year out!



Clockwise from upper left: 1. St. Louis Eclipse Task Force meeting at the Science Center grows enough to warrant a bigger room. School districts in addition to parks, cities, state representatives, astronomy organizations, etc are now represented. Laura McLeod from St. Louis County Parks being interviewed by Channel 5 at the “One Year Out” event at Jefferson Barracks Park. 2. Sharon Bertram explains the path. 3. Patrons trying out eclipse glasses at the “Solar Saturday” event at the James S. McDonnell Planetarium on every 3rd Saturday. 4. Mark Jones and Frank Mack help attendees view the Sun at the Jefferson Barracks event.



Above: Brad Waller thanking Jane Rix from the presentation about Sketching in Astronomy with a SLAS Mug. **Right:** Don Ficken’s Basement before the build!



ALCON 2016



Left: At the observatory in front of the Air and Space Museum, John Dobson's Solar Telescope is displayed for us. **Right:** Shauna Edson describes a HUGE Sun Gun attached at the end of a 4" refractor. PVC helps attach the gun, made of a decent sized planter with screen material designed for rear projection as the observation area. A really large display is created.



Clockwise from upper left: 1. The James Webb space telescope in the clean room. 2. Cold chamber for Goddard. Note the tiny person at the bottom. 3. Space Shuttle Discovery. 4. The Blackbird. 5. The AMAZING library at the US Naval Observatory. 6. A fantastic spinning globe projection system at Goddard. 4 projectors to put any 3d display on the globe. 5. The 26" Clark at the Naval Observatory. Middle: Solar telescope array from Skylab.





Clockwise from upper left:

1. Kevin Quin "You Suck at Astro-photography (and so do I).
2. "The Awesome Exaggerations" play as many songs with astronomy references as possible at the Star-B-Q
3. Vivan White from Night Sky Network using an eclipse demonstrator during a workshop.
4. Denise Moser looks up materials for Astronomical League Sales
5. Mike Reynolds receives the Leslie C. Peltier Award from the League and gets complimented by Scott Roberts from Explore Scientific.
6. The youth award winners from left to right: Virginia Mellott, Katharine Melbourne, NASA's Charles Bolden, Megan Gialluca, Scott Roberts, Swagat Bhattacharyya and Jayasuriya Senthilvelan
7. Virginia Mellott, winner of both the Youth Service and the Imaging Awards with AL VP Bill Bogardus and President John Goss.
8. Vivian White and David Prosper talking to AAVSO director Dr. Stella Kafka.
9. Dr Charles Bolden speaking with banquet goers after an inspiring and emotional keynote address.
10. Swagat Bhattacharyya and Jayasuriya Senthilvelan speaking about their research.



SLAS Executive Board Meeting Minutes for July 7, 2016

1. Opening Activities:

Attending: Jim Small, Bradley Waller, Bill Winningham, Larry Campbell, Rich Heuermann

Meeting opened at 705pm.

Read and approve minutes from June. Brad moved acceptance of adjusted minutes, Larry Campbell seconded. Minutes were approved.

2. External Business Next board meeting: (NOTE CHANGES IN AUG & SEPT) Aug 3 (Wed), Sept 1, Oct 6, Nov. 10, Dec 7 (Wed)

3. Director Reports:

President – Jim Small: Money from GiveSTLDay: brought in \$83 Money from Infini-tees shirt sales: \$100 (five shirts)

Report from MSRAL 2016: SLAS share of profits was \$399.98

Motion to approve partnership agreement between St. Louis County Library (SLCL) and SLAS for eclipse programs with changes to policy. Agreement is needed by SLCL to establish formal relationship including compensation for SLAS services. Primary services provided are related to the Library Telescope Program. Agreement will not obligate SLAS to any cost. Payments received from SLCL will be managed by the Library Telescope committee and the Board. Motion made by Brad Waller and seconded by Rich Heuermann. See attached document to email. Motion passed.

Vice President: Bradley Waller

Monthly Presentations

July: Jane Rix: **Sketching the Night Sky**, August: **John Wharton: 2017 Eclipse, 1 Year Out**, September: **Gary Gackstatter: Archo Astronomy**, October: **Dr Kater Murch, Wash U: LIGO**, Dec: **Dr William McKinnon "PLUTO"** April 2017: **Dr Kevin Evans MSU: Weaubleau Impact Structure**

Astro 101

*June: **Bill Neubert- An Excel-based Observing Session Planner** *July: **Wayne Clark- July 29 Grazing Occultation of Aldebaran by the Moon across MO** *August: **Grant Martin- C A Laser Finder**

Other speakers: Prof from Missouri State, Jim Kaler from Univ of Illinois, Dr Linda Godwin, Dr Pamela Gay

Coffee mugs with SLAS logo were purchased. Money for mugs came from speaker budget.

Motion by Brad Waller, seconded by Bill Winningham. 15 mugs for speakers, money for mugs from Speaker Budget, sell rest of mugs for \$7 each, with proceeds going back into speaker budget. Motion passed.

SLAS Coffee Mugs to past Presenters.

Meeting speaker fees budget left: \$19.14

Membership Initiatives Budget Balance: \$183.80

Can Homemade Fest 2016 balance be moved into another Account? Answer was no.

New members meeting report

For the Newsletter & Website: "If you hear of someone who you think would make a good speaker for our Friday Meeting Lecturers, please get their Phone# and E-mail address and send it on to Bradley R Waller, vicepresident@slasonline.org I will then try to make contact with them. Just remember, the more information you can provide, the better chance I have to reach them. Make

sure you include the topic you want to hear about." Brad Waller proposed that Mike Roberts be an official weatherman for SLAS. Second by Larry Campbell. Motion passed.

Secretary: Mark Jones- No report

Treasurer/ALCor – Bill Winningham: see separate report: of note: 1. The ALCOR fee of \$700 has been paid. 2. We have received a refund of our \$1,000 in seed money to MSRAL 2016 as well as share of the proceeds totally \$399.98. Sales of the latest Boeing lenses produced over \$2000

Hospitality: Larry Campbell Membership recognition: Budget for recognition remaining is \$83 Name tags are out and more will be arriving this month with extrablank tags

Board member at large reports

Tom Nickelson (2017) no report

Brent Buch (2018) no report

Rich Heuermann (2019) Press release is out.

4. Committee Reports: If needed

Library Telescope Program: The next SLAS build for library telescopes will be for 46 telescopes! Libraries in the Union, MO area were added to this build (10 in total!) Support for this program will be recruited from the Eastern Missouri Dark Sky Observers. Build for August will be 46 telescopes.

Membership – Jim Small forwarded a proposal to send eclipse glasses to members appropriate to type of membership throughout this coming year starting with August renewals, seconded by Larry Campbell. Report from Don sent via email: The report shows that we have 157 members, up two members over last year's count of 155 members for the comparative period. We are down 8% from the beginning of the year count of 171 members.

A few notes:

New member counts are lagging with only 14 new members being added this year vs 23 new members added last year Expired member counts are higher this year at 28 members expired vs 15 last year and is trending higher than the last three years. Disappointed that Library Telescopes didn't bring in more members. New member meetings might be working but won't know for a while.

Merchandise – Price for mugs is \$7. Pens? Infini-tees shirts can be ordered, but Dirk prefers a bulk order to many individual orders. Headz n Threadz will do embroidery work

Telescope Making –

Librarian –

Newsletter: Send articles in ready to go format!

Website – www.slasonline.org/joomla

Night Sky Network –

SLASdialogs –

Dark Site –

Loaner –

Publicity –

Observing Programs – Former member Rodney Rynearson is interested in helping members with observing programs. He moved to Michigan several years ago and just recently rejoined and would like to help. Board approved.

Star Parties: upcoming star parties:

5. Old Business -

6. New Business -

Special Projects Fund: Tabled

Solar Telescope Committee: Tabled

Parking issue: update from parking services: Free pass per year ending June 30th. Still in negotiation for a policy exception for future meetings.

7. Closing Activities Motion to adjourn at 925pm by Larry Campbell, second by Rich Heuermann. Motion approved.

7:52 AM
08/10/16
Accrual Basis

**St. Louis Astronomical Society
Profit & Loss Budget vs. Actual
January through July 2016**

	<u>Jan - Jul 16</u>	<u>Budget</u>	<u>\$ Over Budget</u>
Ordinary Income/Expense			
Income			
Magazine Subscription	763.28	997.10	(233.82)
Membership Dues	2,075.00	2,165.00	(90.00)
Merchandise Sales	106.00	0.00	106.00
Total Income	2,944.28	3,162.10	(217.82)
Cost of Goods Sold			
Total Magazine Subscriptions	743.00	997.10	(254.10)
Total Merchandise	(109.78)	45.00	(154.78)
Total COGS	633.22	1,042.10	(408.88)
Gross Profit	2,311.06	2,120.00	191.06
Expense			
1-Programs & Events	623.07	1,118.34	(495.27)
2-Newsletter	96.40	116.67	(20.27)
3-Library expense		58.33	(58.33)
4-Astronomical League Dues	700.00	695.00	5.00
5-Loaner Scopes		25.00	(25.00)
7-Insurance	380.00	380.00	
8-Website	155.40	150.00	5.40
9-Administrative Expenses	313.91	842.50	(528.59)
Total Expense	2,268.78	3,385.84	(1,117.06)
Net Ordinary Income	42.28	(1,265.84)	1,308.12
Other Income/Expense			
Other Income			
Total Donations	533.05	0.00	533.05
Eclipse Escrow Receipts	878.00	0.00	878.00
Interest Income	23.36	58.00	(34.64)
LTP Receipts	20,584.00	0.00	20,584.00
Non-Operating Income ^{1,2}	458.98	0.00	458.98
Proceeds from Lens Sales	13,234.08	0.00	13,234.08
Total Other Income	35,711.47	58.00	35,653.47
Other Expense			
Astro Mag Award Disbursements	472.76	0.00	472.76
Eclipse Escrow Disbursements	708.43	0.00	708.43
Eclipse Escrow Funding	800.00	800.00	0.00
LTP Disbursements	8,651.33	0.00	8,651.33
LTP Escrow Funding	1,000.00	1,000.00	0.00
Non-operating Expense ¹	59.00	0.00	59.00
Total Other Expense	11,691.52	1,800.00	9,891.52
Net Other Income	24,019.95	(1,742.00)	25,761.95
Net Income	24,062.23	(3,007.84)	27,070.07

¹ An individual mistakenly signed up for SLAS instead of the Science Center, membership and magazine funds refunded.

² Includes \$399.98 of proceeds from MSRAL 2016.

**St. Louis Astronomical Society
Balance Sheet
As of July 31, 2016**

	<u>Dec 31, 15</u>	<u>Jul 31, 16</u>
ASSETS		
Current Assets		
Checking/Savings		
Astronomy Magazine Award**	465.72	0.00
Checking - First Bank	2,940.49	2,949.21
Deposit, Certificate of	20,108.23	20,128.33
Library Telescope Escrow [†]	444.55	12,428.46
Merchandise Change Fund	20.00	20.00
PayPal	82.51	140.41
Savings - First Bank	5,361.90	18,599.24
SLAS Eclipse Conference Escrow***	539.12	694.32
YMCA Trout Lodge Escrow	542.87	542.87
Total Checking/Savings	30,505.39	55,502.84
Other Current Assets		
Inventory Asset	1,410.53	1,520.31
Investment in Mid-States 2016	1,000.00	0.00
Undeposited Funds	55.00	10.00
Total Other Current Assets	2,465.53	1,530.31
Total Current Assets	32,970.92	57,033.15
Total Fixed Assets	0.00	0.00
TOTAL ASSETS	32,970.92	57,033.15
LIABILITIES & EQUITY		
Equity		
Opening Bal Equity	8,137.66	8,137.66
Retained Earnings	24,464.84	24,833.26
Net Income	368.42	24,062.23
Total Equity	32,970.92	57,033.15
TOTAL LIABILITIES & EQUITY	32,970.92	57,033.15

[†] Funds restricted for the Library Telescope Program. \$444.55 was carried over from the end of 2015. Reflects \$1,000 from the 2016 budget.

** Funds from Astronomy Magazine Award, available until 4/10/2016 (funds have been spent).

*** Registration fees and donations for SLAS sponsored eclipse seminars. Also includes \$800 from the 2016 budget.

Wanted: Newsletter Articles!

The Event Horizon needs articles from people like YOU!

Interviews, current astronomy topics, historical articles, you name it, we can use it! Send what you have to: newsletter@slasonline.org

Wanted: Volunteers!

Be sure to sign up on Night Sky Network for upcoming star parties. Lead volunteers need to know who will be there so they can tell where we are falling short. If you aren't sure how to RSVP, please ask anyone at the meeting and we can show you how on the computer after the meeting. Or contact any board or committee member to find out. See you at the next star party!

Upcoming Star Parties and Other Events

For details on these and other upcoming events, check out the Night Sky Network Calendar linked on the Home Page for SLAS at <http://www.slasonline.org>

SLAS Executive Board Meetings *Location will be at the Edward Jones YMCA* All meetings are on Thursdays unless noted.
July 7, **Wed, Aug 10**, Sep 1, Oct 6, Nov. 10, Dec 7

Dark Sky Observing Dates
8/6/2016, 9/3/2016, 10/1/2016, 11/5/2016.

Francis Park Events: These events are on Thursdays the week nearest the first quarter Moon
8/10/2016, 9/7/2016, 10/5/2016

SLSC Public Telescope Viewing Events: These events are held the first Friday of the month
Planetarium shows start at 7pm
8/5/2016, 9/2/2016, 10/7/2016, 11/4/2016, 12/2/2016

YMCA Edward Jones Star Parties (generally third Mondays)

8/15/2016, 9/19/2016, 10/17/2016,

Pattonville Observatory Public Viewing Dates
Finished for the school year! See you in September!

Broemmelsiek Astronomy Park Public Viewing
Every Friday night with ASEM members

UMSL Observatory
For directions and map
<http://www.umsl.edu~physics/astro/directions.html>

All sessions include viewing of 1st quarter Moon with additional objects

Skywatch Hotline: 314-516-5706

Saturdays: 8/13, 9/10, 10/8, 11/5



Above: Just for you Bradley, the actual model of the Enterprise used!

LET US KNOW YOU ARE COMING!

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

SLAS EVENTS

August
27 Sun
30 Tue
30 Tue

Sky Orienteering
Scenic Regional Library - Union
Scenic Regional Library - Pacific

September

1 Thur
1 Thur
1 Thur
2 Fri
2 Fri
3 Sat
3 Sat
6 Tue
7 Wed
8 Thur
8 Thur
10 Sat
10 Sat
15 Thur
16 Fri
17 Sat
17 Sat
19 Mon
20 Tue
22 Thur
25 Sun

Twin City Optimist
SLAS Board Meeting
Scenic Regional Library - St. Clair
Astral Observatory
SLSC Public Telescope Viewing
Astral Observatory
SLAS Dark Sky Observing
St Charles Library - Spencer Road
Francis Park
St Charles Library - Kisker Road
West Belleville Library
Lewis and Clark Library Solar
Star Gazing at Crestwood Park
Schlafly Branch Library SLPL
SLAS Regular Meeting
Sidewalk Solar Observing
Cub Scouts at Beamont
Edward Jones YMCA
Sachs Library Eclipse Awareness
Fort Zumwalt South Middle
Sky Orienteering

October

1 Sat
1 Sat
3 Mon
5 Wed
6 Thur
6 Thur
7 Fri
8 Sat
10 Mon
10 Mon
11 Tue
12 Wed

Girl Scout Camp—Peavley
SLAS Dark Sky Observing
Grant's View Library
Francis Park
St Charles Deer Run Library
SLAS Board Meeting
SLSC Public Telescope
Faith Academy
St Charles Corporate Parkway Lib
Jamestown Bluffs Lib
Central Library SLPL
St. Charles Library Karthyryn Linn

SLAS Merchandise Available

SLAS merchandise is now set up for embroidery at

Headz n Threadz at <https://hnt.threadthis.com/>

There are two locations:

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

Delmar: 6662C Delmar Blvd St. Louis, MO 63130
Telephone: 314.863.2695 delmar@headznthreadz.com
[Delmar Map](#)

Simply take the garment, hat, etc you wish to have embroidered and they will take care of it. They have the SLAS logo on file. You may make modifications to the colors if you wish.

SLAS Logo is also available at Infini-tees



SLAS MEMBERSHIP APPLICATION



Name: Last _____
 First, Middle Initial _____
 Address _____
 City, State, Zip Code _____
 email address _____

Youth @ \$10.00 / 1 year (18 yrs or younger) \$ _____
 Individual @ \$25.00 / 1 year \$ _____
 Family @ \$40.00/1 year \$ _____
Publications with discount available with your SLAS membership:
 Sky and Telescope @ \$32.95 / 1 year \$ _____
 (S&T may also be renewed at their website:
<http://www.skyandtelescope.com>)
 Astronomy @ \$29.95 / 1 year \$ _____
TOTAL ENCLOSED \$ _____

Please send completed form with check (no cash please) made payable to
 St Louis Astronomical Society
 Don Ficken, Membership
 13024 Barrett Crossing CT
 St. Louis, MO 63122

Check all that apply:
 Renewal
 Address Change Only
 Please send my newsletter by regular mail
 New Member!

SLAS OFFICERS

President	Jim Small	314-307-0692
president at slasonline.org		
Vice President	Brad Waller	314-481-7250
vicepresident at slasonline.org		
Secretary	Mark Jones	636-394-2342
secretary at slasonline.org		
Treasurer	Bill Winningham, (Don Ficken - membership)	636-225-0269
treasurer at slasonline.org		
Hospitality	Larry Campbell	636-244-2867
hospitality at slasonline.org		
Board Members at Large:		
	Rich Heuermann	314-962-9231
Board19 at slasonline.org		
	Brent Buch	314-239-0329
Board18 at slasonline.org		
	Tom Nickelson	314-346-9565
board17 at slasonline.org		
ALCOR	Bill Winningham	636-225-0269
(Astronomical League Correspondent) treasurer at slasonline.org		
MSRAL Rep.	Jim Small	314-909-7211
msral_rep at astroleague.org		

COMMITTEE CHAIRS

Dark Site Coordinator	Mark Jones	636-394-2342
darksite at slasonline.org		
Librarian	Jim Small	314-909-7211
librarian at slasonline.org		
Library Telescope Program	Don Ficken	636-851-9630
lirbrarytelescope 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	Jerry Loethen	314-329-8008
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	Bill Breeden	314-276-3613
starparty at slasonline.org		
Telescope Making	Bill Davis, Jim Melka	314-469-3061
telescope at slasonline.org		
Webmaster	Jim Small	314-909-7211
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>

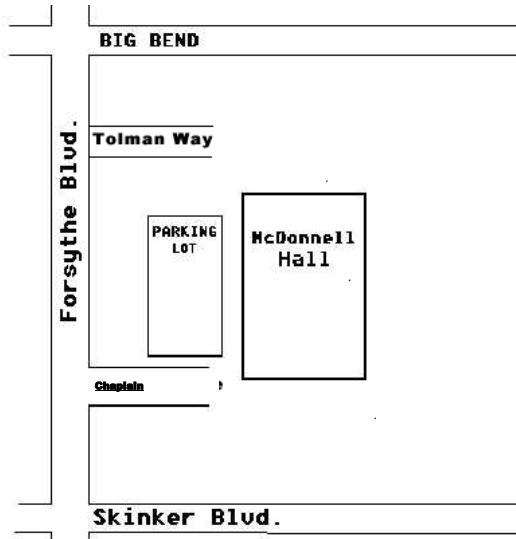


Who We Are and What We Do

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

