

THE EVENT HORIZON



ST. LOUIS ASTRONOMICAL SOCIETY

Devoted to the Interest and Advancement of the Science of Astronomy

VOLUME 26, Issue 9
September, 2016

Chaco Canyon – The Stones and Stars of Ancient American Astronomers

by
Dr. Gary Gackstatter
St. Louis Community College - Meramec

Dr. Gary Gackstatter of Saint Louis Community College, Meramec Campus, will be featured at the September meeting of the St. Louis Astronomical Society. The meeting will begin at 7:30 PM Friday, September 16, in McDonnell Hall, Room 162, on the Washington University campus.

Chaco Canyon National Monument in northwestern New Mexico was established in 1907 to protect the remaining stone buildings of Chaco Native Americans. The motions of sun, moon, planets, and stars were woven into the culture and beliefs of the Chaco Canyon people. Constructed more than a thousand years ago, their great houses featured many celestial alignments and devices. St. Louisan Gary

Gackstatter will talk about the buildings, culture, and astronomy of these ancestors of the Pueblo tribe. He recently visited Chaco Canyon, and was inspired to write a modern symphony "Chaco -- A Journey Of The Spirit". It was first performed in Meramec's theater last May.

Gary Gackstatter is Coordinator of Music and conductor of the Symphonic Band and Meramec Orchestra. A member of the Meramec music faculty, he is also an active composer and musician, as well as an artist.

Astro 101 for this month will feature videos from the grazing occultation of Aldebaran by the Moon by Grant Martin and others.

Upcoming Meetings:

October - Kater Murch, PhD - How LIGO pushes the limits of quantum measurement detect gravity

November - TBA

December - William McKinnon, PhD Pluto

January - Peter Plavchan, PhD - The Golden Age of Exoplanet Discovery

February - Pamela Gay, PhD - Super Secret Squirrel Stuff

April - Kevin Evans, PhD - Weaubleau Impact Structure

NOTICE OF PARKING RESTRICTIONS FOR THIRD-FRIDAY MEETINGS

You will need to park in the **yellow zones, car pool spaces, or at meters** while attending the Friday evening meetings. Current University policy allows red zone parking only for University red zone permit holders. We have requested an exception to the policy, but University action on this request is still pending. **At this point, the red zone restriction is in force.** Violators are subject to receiving University parking tickets, which carry \$35 fines.

The nearest yellow zone spaces are on Forsyth Blvd. and in front of the greenhouses, two buildings west (away from Forest Park) of McDonnell Hall. The greenhouse lot has both red and yellow zone parking, so be sure that you are not in a posted red zone. **Meter spaces are free after 6 p.m. Car pool spaces are marked and available after 2 p.m.** Should

all of these spaces be filled, you will find the nearest yellow zone spaces about a quarter-mile west, by the Business School's Olin Hall, or a quarter-mile east, behind the Steinberg Art Gallery. Handicap Parking is exempt from the above rules.

Services for Glenn Greenway

Date: Saturday, September 17th, 2016

Time: 11:00 am refreshments to follow

Address: [Christ Church, United Church of Christ \(link to map\)](#)

[2200 Bellevue Ave, Maplewood, MO 63143](#)

Ron Gaus, the pastor for Glenn's church has asked if you have any statements/anecdotes/photos of Glenn they can use for the service to please forward them to his email at:

rgaus15496@aol.com please also copy me at president@slasonline.org with the same materials.

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Presidents Corner—Jim Small

For the **Astro 101** this month, we will be taking a look at some of the Grazing Occultation videos with the Moon and Aldebaran from July. If you have video from the event, bring it on up for the meeting this Friday. It will be best if you have it on a thumb drive to pre-load it on the computer. Grant Martin will be featured with his video and measurements afterwards.

If you haven't heard already, Glenn Greenway passed and his services will be held Saturday, September 17 at 11:00 am. It would be great if we can have a good turnout for Glenn. He truly loved astronomy, was a longtime member of SLAS and really loved our group and doing outreach with us. He was a regular at the Planetarium and Francis Park and any other event he could get to either on his bicycle or by getting a ride. See the front page to share memories and/or photos of Glenn.

The Astral Valley event over Labor Day weekend went fairly well. The site isn't the darkest ever; there is some sky-glow from the North, but the Milky Way was very good and if we are at the top of the hill on the site we were at, it would be a good dark site. There were 3500 music and arts fans enjoying the concerts for the weekend. We will be

checking into seeing if SLAS members can get access to the site on a regular basis. Camping is available and we could camp on the site for dark sky nights if need be. In addition, it's only about 55 minutes from the Kirkwood area, making it fairly close to folks south of I-64.

We are on a run to break the high mark we set last year for outreach events AND volunteer hours! Keep up the good work. It's great to see so many people involved. I would LOVE to double our Night Sky Network pins AGAIN this year. Volunteers are the engine for this organization and without you, we couldn't accomplish what we do with our organization. Take a look at the number of events you have below and PLEASE add 1, 2, 3, or 4 events for your total as recorded below!

ALCON 2016 was great and added a lot of interest in Library Telescopes. ALCON 2017 will be held in the middle of the eclipse zone in Casper, Wyoming and already has 500 people registered. If you want to go, register NOW. ALCON 2018 will be held in Minneapolis and will be a meeting that will focus on observing at the observatories the club owns in the area. MSRAL 2017 will be held June 2-4 in Springfield, MO. Put it on your calendar!

Be sure to come early to the meeting on Friday (Balloon Glow) and park in the yellow zones (NOT red except for handicap parking). See the article on page one.

Outreach Volunteers Jan-Sep 5, 2016

Through early August, SLAS members have logged 1228 hours for 114 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 plenty of time to volunteer.

Thank you to all our volunteers!

Donald Ficken	70 events; 171.3 hours
Cook Feldman	38 events; 146.1 hours
Larry Campbell	26 events; 80.5 hours
John Beaury	25 events; 101 hours
Mark Jones	23 events; 77.5 hours
Rich Heuermann	21 events; 74 hours
James Small	17 events; 50.5 hours
Frank Mack	16 events; 45.3 hours
Sharon Bertram	13 events; 42.5 hours
Rick Menendez	13 events; 42.3 hours
Richard Jennings	9 events; 27.5 hours
Richard Fefferman	9 events; 22.5 hours
Bill Biermann	7 events; 16.8 hours
Jim Trull	6 events; 19.5 hours
Bill Breeden	5 events; 16 hours
Robert Drzymala	4 events; 16.5 hours
William Neubert	4 events; 15.3 hours
Michelle Birch	3 events; 18 hours
Edward Frey	3 events; 14.5 hours
Wayne Clark	3 events; 14 hours

Jeffrey Strauss	3 events; 10.5 hours
William Winningham	3 events; 10.5 hours
Rita Breeden	3 events; 10 hours
Ann Trull	3 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
Gregg Ruppel	2 events; 9 hours
Gregory Gaines	2 events; 9 hours
Dale Engelbrecht	2 events; 7.5 hours
Doug Blum	3 events; 7.5 hours
Gaylene Engelbrecht	2 events; 7.5 hours
Bradley Waller	2 events; 7 hours
Raymond Mueller	2 events; 6 hours
Donald Snyder	2 events; 4.3 hours
Marlene Bopp	1 events; 8 hours
Gary Holt	1 events; 7 hours
Alan Sapia	1 events; 7 hours
Gerald Hutchins	1 events; 7 hours
Renee Mettle	1 events; 7 hours
Brian Mills	1 events; 6 hours
Cathy Hooper	1 events; 6 hours
Nancy Clark	1 events; 6 hours
Brent Buch	1 events; 4.5 hours
Mark Fedde	1 events; 4 hours
Lee Halbeck	1 events; 3 hours
James Griffith	1 events; 2.5 hours
Joseph Schober	1 events; 2.5 hours
Michael Malolepszy	1 events; 2 hours
Michael Callaghan	1 events; 1.5 hours
Randy Gettman	1 events; 1.5 hours
Timothy Hulla	1 events; 1.5 hours

SLAS Presentation Mugs



August 2015 Presenter: Mike Clements with SLAS (Salt Lake Astronomical Society) President, Joan Carman



June 2016 Presenter: Mike Roberts

Greetings to the SLAS Collective. With the arrival of our SLAS Mugs, I have started to hand them out to past Presenters. Since I took over in June, I started then... minus a couple of months. I have Presented mugs to the following people. PhDs Mike Brown and Heather Knutson. Doc Brown has been very kind to sign MANY copies of his book, "How I Killed Pluto..." and photos of the

Dwarf Planets he has discovered. These have been given away as Attendance Prizes at SLAS Meetings, Homemade Fests 2015 & 2016, and MSRALs 2014 & 2016. Dr Knutson was our May 2016 Presenter. They both have received their SLAS Mugs.

Now, the picture on top. Mike Clements and Joan Carman. Mike gets one for his August 2015 SKYPE presentation for SLAS (the first one for SLAS). You might be wondering why Joan Carman is SLAS President???. Well... She is!!! She is the President of: The Salt Lake Astronomical Society. I called Joan back in May 2015 just to make contact with another SLAS. During the course of our conversation, I mentioned how I would love to make contact with the guy who built a 70" Telescope! Joan said, "You mean, Mike Clements, he is a Member of SLAS-Utah." I gushed and gave Joan my contact info. Two weeks later, Mike called. The rest is History. Mike not only has presented for SLAS, but, this MSRAL 2016, Mike made another SKYPE Presentation about his 70" Scope!!! Mike has made it known, that if ANYONE wants to visit him, he would LOVE to have you. He is an over the road trucker during the week, and gets in on Saturday. Depending on how fast he can secure his rig, if there is time...he goes out observing!! Sunday, is the best day for him. He is totally off and does most of his observing then.

I sent both Mike and Joan Mugs. Mike for his Presentations and Joan for helping Mike out with the computer stuff for Skyping. Mike does not have a computer or internet!!! Phone calls only J Joan also was very instrumental in helping me get Dr Heather Knutson. Dr Knutson presented to SLAS-Utah earlier in 2015. SLAS-Utah has a similar tradition for their Presenters. Instead of Mugs, they present SLAS BASEBALL Caps!!! They are wearing their SLAS-Utah caps in the picture.

Well, now it is time for the other photo. After MANY attempts, I was finally able to present Mike Roberts with his SLAS Presentation Mug on 15 Aug 2016. Why did it take so long???. Well, the mugs had not arrived yet for his Presentation. They arrived the following Wednesday after his Presentation. I called him to see if at any time he was in the Clayton area. He said, well, today I am. Unfortunately, I left his mug at home. So, after about six weeks of trying...as you can see from the photo, Mike now has his SLAS Presentation Mug J

Final item. There are only two ways to get a SLAS Mug.
1. Make a Monthly Presentation to the SLAS Collective
2. Purchase one from the SLAS VP, Brad Waller, for \$7.00

Your Articles Are Needed!

The Event Horizon wants YOU! Have you attended a star party recently? Tell us about your experience. No need to be an expert writer, let us know how it went, what kind of people were there, what you saw and so on! SLAS members want to know what's going on at our outreach events and we need to hear from you. If you have at least one photo of the event, that would be terrific. With all the

events we are doing these days, we should be able to publish material from 8-10 star parties per month! We are especially interested in Library star parties if you work one of those!

In addition, if you have an article about any astronomy topic you like, send it in! Are you doing some interesting experiment or imaging? Send your favorites to The Event Horizon at newsletter@slasonline.org. Thanks!

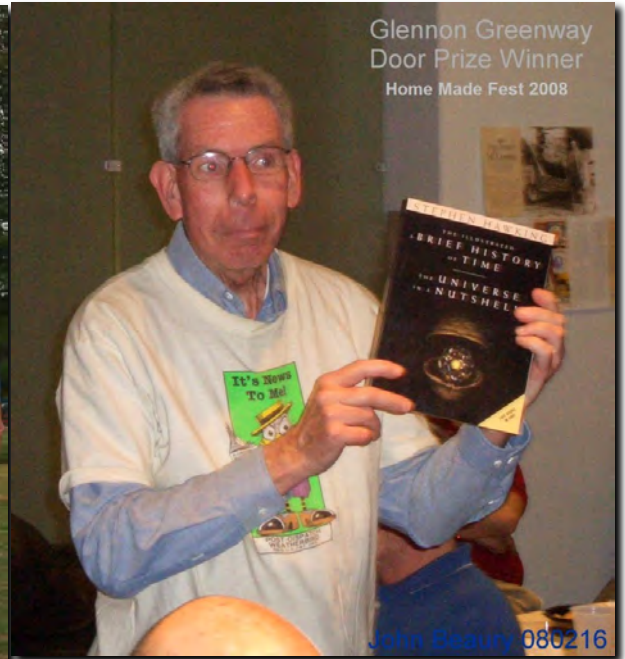


Left: Mark Jones lines up his telescope to shoot the occultation **Middle:** John Beaury records video. **Above:** Wayne and Nancy Clark observe through a refractor and binoculars.



Above left: Venus, the Moon and Jupiter from Pattonville Observatory 9/2. **Above Right:** Moon and Venus from Astral Observatory 9/5. **Left:** Rich Heuermann and Rick Menendez at Astral Observatory. **Right:** Teapot, Scorpius and Milky Way from Astral Observatory. **Below:** setting up scopes at the top of the hill at Astral Observatory. Watch for possible future SLAS events there!

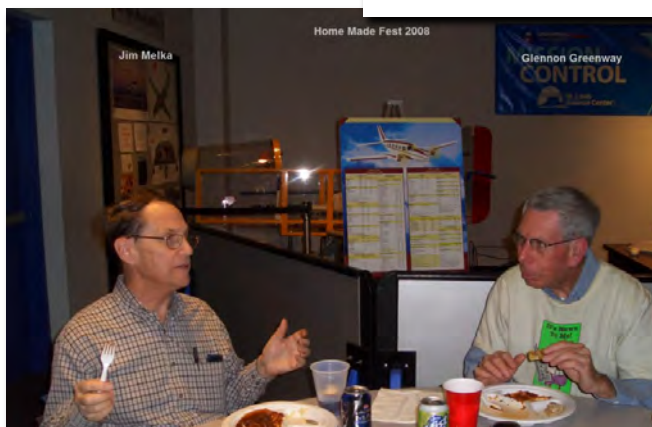




Left: Grant Martin and crew with Grant's very long focus refractor. Glenn Greenway on the right
 Above: Glenn and his prize from the 2008 Home-made Fest. Glenn was a regular at this annual event



Above and left: Glenn's telescopes. The scope on the left was built by Glenn and his father when Glenn was in high school. Right and below: Glenn at Home-made Fest in 2010, 2008, and 2011. Glenn was a great ambassador for astronomy and a long time member of SLAS



SLAS Executive Board Meeting Minutes for August 3, 2016

1. Opening Activities:

Meeting opened at 7:15 pm.

Attendees: Brad Waller, Larry Campbell, Rich Heuermann, Brent Buch, Bill Winningham, Jim Small, Mark Jones

2. External Business

Next board meeting: Sep 1 (NOTE CHANGES), Oct 6, Nov. 10, Dec 7 (Wed)

July meeting minutes were sent to Board prior to meeting. Minutes were reviewed. Brad motion to approve the minutes as amended, seconded by Rich were minutes approved

3. Director Reports:

President – Jim Small:

Telescope build this Saturday. 48 telescopes planned over 50 volunteers signed up

Jim taking lead for the Astral Valley event might have future observatory site

Jim and Brent heading to ALCON this week

Looks like MSRAL 2017 probably will be hosted by Springfield MO. Date not set.

Rich Heuermann will host this year's StarBQ trivia quiz

Vice President –Brad Waller: Speaker Lineup

August: John Wharton 2017 Eclipse - 1 Year Out; September: Gary Gackstatter – Archeoastronomy in Chaco Canyon; October: Dr. Kater Murch Wash U. – LIGO; December: William McKinnon Wash U. – Pluto; April 2017: Kevin Evans MSU – Weaubleau Impact Structure

Astro 101 –August: Grant Martin Computer Assisted Laser Finder

Need ideas for other speakers: Astrobiology Professor from Missouri State, Jim Kaler from Illinois, Pamela Gay from SIU-E

Need ideas for membership initiatives

Secretary – Mark Jones:

StarBQ Aug 20th. At Babler State Park starts at 3pm

Aug 21 One-year pre-eclipse solar viewing volunteers needed for Jefferson Barracks and Herculaneum

SLAS outreach volunteers YTD have contributed over 1100 hours.

Treasurer/ALCor – Bill Winningham:

Report submitted before the meeting

Balance sheet LTP escrow up this month from money collected from libraries

Total donations YTD is \$533

Income from lens sales YTD \$13,234

Income from commission from eclipse glasses sales \$2870

Bill- Biennial registration filed with state of MO on 8/3/16

Hospitality – Larry Campbell:

Name Tags on the board and ready for each member at each SLAS meeting

Refreshment budget for rest of year \$243

Board member at large reports

Tom Nickelson: (2017) no report

Brent Buch (2018) Free open source video transcoder and compression tool called "Handbreak" is essential tool for compressing and encoding videos for streaming. Tests indicate it can compress 20gb 2 hr HD videos down to at or below 1gb (varies with video content) with very little to no degradation in quality which makes uploading to Youtube now manageable.

Rich Heuermann (2019)

Rich will follow up with Washington U. parking at next SLAS meeting

4. Committee Reports: If needed

Library Telescope Program: The next SLAS build for library telescopes is Saturday

Membership – 154 members at end of July, down 10% from January. 36 new members have joined in last 12 months but we also lost other members.

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

Newsletter – send articles in ready to go format!

Website – www.slasonline.org/joomla

Night Sky Network – NASA/ASP in the process of testing new website

Observing Programs –Star Parties: upcoming star parties provide on separate list:

5. Old Business -

We need help with our new SLAS website (Joomla). No volunteers.

Discussion of special project funds or petty cash fund. Board decided to continue current budget planning process and not add new special fund.

6. New Business -

None

7. Closing Activities

Mark motioned to adjourn the meeting, second by Bill

Meeting adjourned 9:15pm

4:22 PM
09/11/16
Accrual Basis

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

	<u>Jan - Aug 16</u>	<u>Budget</u>	<u>\$ Over Budget</u>
Ordinary Income/Expense			
Income			
Total Magazine Subscription	890.13	1,231.95	(335.82)
Membership Dues	2,380.00	2,545.00	(165.00)
Total Merchandise Sales	106.00	0.00	106.00
Total Income	3,382.13	3,778.95	(394.82)
Cost of Goods Sold			
Total Magazine Subscriptions	871.80	1,231.95	(360.15)
Total Merchandise	(62.50)	45.00	(107.50)
Total COGS	809.30	1,278.95	(467.65)
Gross Profit	2,572.83	2,500.00	72.83
Expense			
1-Programs & Events	832.38	1,381.66	(549.28)
2-Newsletter	96.40	133.34	(36.94)
3-Library expense		66.66	(66.66)
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	336.34	960.00	(623.66)
Total Expense	2,500.52	3,791.66	(1,291.14)
Net Ordinary Income	72.31	(1,291.66)	1,363.97
Other Income/Expense			
Other Income			
Total Donations	583.05	0.00	583.05
Eclipse Escrow Receipts	3,841.00	0.00	3,841.00
Interest Income	34.18	66.00	(31.82)
LTP Receipts	21,457.00	0.00	21,457.00
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	39,608.29	66.00	39,542.29
Other Expense			
Astro Mag Award Disbursements	472.78	0.00	472.78
Eclipse Escrow Disbursements	1,448.86	0.00	1,448.86
Eclipse Escrow Funding	800.00	800.00	0.00
LTP Disbursements	20,969.59	0.00	20,969.59
LTP Escrow Funding	1,000.00	1,000.00	0.00
Non-operating Expense ¹	59.00	0.00	59.00
Total Other Expense	24,750.21	1,800.00	22,950.21
Net Other Income	14,858.08	(1,734.00)	16,592.08
Net Income	14,930.39	(3,025.66)	17,956.05

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

	<u>Dec 31, 15</u>	<u>Aug 31, 16</u>
ASSETS		
Current Assets		
Checking/Savings		
Astronomy Magazine Award**	465.72	0.00
Checking - First Bank	2,940.49	2,991.70
Deposit, Certificate of	20,108.23	20,138.36
Library Telescope Escrow [†]	444.55	227.77
Merchandise Change Fund	20.00	20.00
PayPal	82.51	179.23
Savings - First Bank	5,361.90	18,600.03
SLAS Eclipse Conference Escrow***	539.12	3,672.32
YMCA Trout Lodge Escrow	542.87	542.87
Total Checking/Savings	30,505.39	48,372.28
Other Current Assets		
Inventory Asset	1,410.53	1,473.03
Investment in Mid-States 2016	1,000.00	0.00
Undeposited Funds	56.00	56.00
Total Other Current Assets	2,466.53	1,529.03
Total Current Assets	32,970.92	47,901.31
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	32,970.92	47,901.31
LIABILITIES & EQUITY		
Equity		
Opening Bal Equity	8,137.66	8,137.66
Retained Earnings	24,464.84	24,833.26
Net Income	368.42	14,930.39
Total Equity	32,970.92	47,901.31
TOTAL LIABILITIES & EQUITY	32,970.92	47,901.31

[†] 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.

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.

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.
Oct 6, Nov. 10, Dec 7

Dark Sky Observing Dates
10/1/2016, 11/5/2016.

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

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

YMCA Edward Jones Star Parties (generally third Mondays)

9/19/2016, 10/17/2016,

Pattonville Observatory Public Viewing Dates
9/23/2016, 10/7/2016, 10/20/2016, 11/4/2016, 11/11/2016

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

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

September

15 Thur Schlafly Branch Library SLPL
16 Fri SLAS Regular Meeting
17 Sat Sidewalk Solar Observing
17 Sat Cub Scouts at Beamont
19 Mon Edward Jones YMCA
20 Tue Sachs Library Eclipse Awareness
22 Thur Fort Zumwalt South Middle
25 Sun Sky Orienteering
26 Mon Paddle MO event Sioux Passage
27 Tue Paddle MO event Sioux Passage

October

1 Sat Girl Scout Camp—Peavley
1 Sat SLAS Dark Sky Observing
3 Mon Grant's View Library
5 Wed Francis Park
5 Wed Riverside Library Regional
6 Thur St Charles Deer Run Library
6 Thur SLAS Board Meeting
7 Fri SLSC Public Telescope
8 Sat Faith Academy
10 Mon St Charles Corporate Parkway Lib
10 Mon Jamestown Bluffs Lib
11 Tue Central Library SLPL
12 Wed St. Charles Library Karthyryn Linn
13 Thur Lewis and Clark Library
14 Fri Chesterfield Monitssori
15 Sat Sidewalk Solar Observing SLSC
15 Sat ARRL Microwave Update
15 Sat Sunset Camp Out
17 Mon Edward Jones YMCA
18 Tue Library Star Party SLCL Hdqurtrs
21 Fri SLAS regular meeting
22 Sat Night Skies Over Babler
23 Sun Sky Orienteering

SLAS Merchandise Available

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

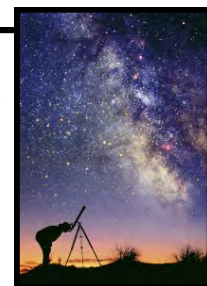
There are two locations:

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 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 @ \$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 slasonine.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	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
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Devoted to the Interest and Advancement of the Science of Astronomy

ST. LOUIS ASTRONOMICAL SOCIETY

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

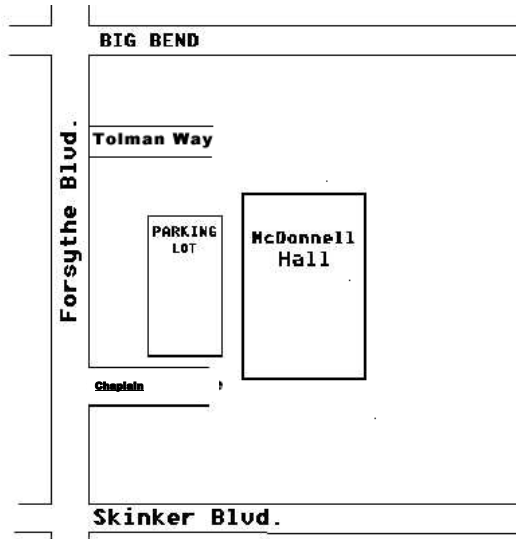


Who We Are and What We Do

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

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