

THE EVENT HORIZON



ST. LOUIS ASTRONOMICAL SOCIETY

Devoted to the Interest and Advancement of the Science of Astronomy

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The Search For the Sun's Siblings by Dr. Bruce Wilking University of Missouri - St. Louis

Dr. Bruce Wilking will be featured at the July meeting of the St. Louis Astronomical Society. The meeting will begin at 7:30 PM Friday, July 21, in McDonnell Hall, Room 162, on the Washington University campus, Saint Louis, MO 63130. McDonnell Hall is accessible from Forsyth Boulevard via Tolman Way. Yellow zone and street parking are available to the audience. The event, cosponsored by NASA's Missouri Space Grant Consortium, is open to the public free of charge.

Most stars in our Galaxy are born in clusters of a few dozen to a few hundred stars. These cluster stars slowly drift apart and disperse over time. Dr. Wilking and his colleagues have studied the dynamical state of a very young cluster. They see evidence that stellar encounters pump up the relative velocities of the young stars as they emerge from their dense gas cores. Dr. Wilking comments "Evidence is mounting that our Sun formed as part of a cluster that included a massive star that evolved into a supernova. This explains

the enrichment of certain elements in meteorites." He will explain how conditions that existed when the very young Sun was part of a star cluster have affected the solar system of today. He will also discuss recent searches for stars with the same age and chemical composition as the Sun's and the possibility that a solar sibling may someday be found.

Dr. Bruce Wilking is a Professor of Astronomy at the University of Missouri-St. Louis. His research interests involve star formation and the study of the clouds of dust and gas from which stars form. He has been a member of the UMSL Physics & Astronomy Department and St. Louis Astronomical Society since 1984.

Upcoming Meetings:

August: TBA

September SLAS Collective Solar Eclipse Results

October: Henric Krawczynski, Wash U

November: William McKinnon, PhD
PLUTO Wash U

December: Amy E Kimball, Radio Quasars & the VLA

Mid States Region



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St. Louis Eclipse Expo 2017

Did you make it to the Eclipse Expo at Queeny Park on June 17? If not, everyone else did! There were an estimated 4500 attendees at the expo. Great speakers, great activities, great informational booths, great stuff to BUY! At right is the crowd at 10:45. Photo by Don Ficken.



Presidents Corner - Jim Small

The 2017 St. Louis Eclipse Expo was fantastic! See the article by Grant Martin with a review. Everyone was raving about it. About 4500 people attended with 400 or so attending the panel discussion on Friday night. See the photo gallery for more information. Many exhibits informing the public about where to go, what to do, activities to explain how eclipses work, many talks, and plenty of stuff to buy highlighted the event. MANY people were required to put this event together, but none worked as hard as Don and Donna Ficken to put it all together. MANY thanks to Don for a supreme effort!

Talks on photography, how to enjoy the eclipse, equipment, etc reigned. There were even discussions about traffic that will be expected the day of the event. Missouri might get as many as 31 million visitors coming to see the eclipse here!

There is still much to do preparing for the eclipse and we have plenty of programs to volunteer for in advance of the event.! There are even more programs to volunteer for after the event, so don't forget to RSVP!

If you are using equipment, don't forget to practice before the eclipse! Are those batteries charged? Do you have a checklist? Best of luck for whatever you decide to do!

We are tentatively planning for the August meeting to be held at the Planetarium on the 18th to accommodate the anticipated large crowd. As soon as we know, we will announce the meeting.

In preparation, we are asking Cindy Preszler to speak at the August meeting. In order to do that, we will ask the membership to accommodate the board with the \$250 fee for Ms.

Preszler. We will be voting on a resolution asking for said fee at the July Meeting. It will be stipulated that the fee will only apply if we are able to obtain a large venue for the meeting. Below is the wording of the resolution:

The board approved a request for funds to be voted on by the membership for \$250 to cover the fee to have Cindy Preszler speak at the August 18 SLAS regular meeting. Said fee will only be applied if we are able to obtain a large venue such as the Planetarium for the meeting. If such a venue is not possible, the fee will not be approved.

The request will be voted on at the July 21st meeting.

We are looking forward to an exciting month here in St. Louis as the area will be bustling with activity for the eclipse!

We will put out an extra edition with information about the eclipse including where to go, how to experience the eclipse, etc.

Look for it in the next couple of weeks!

Where will you be????

Clear Skies!

Jim Small

**Outreach Volunteers
January - July 1, 2017**

SLAS members have logged 1031.5 hours for NSN outreach events!
Members with 5 or more events for 2017 qualify for the Night Sky Network pin. Check NSN for opportunities and sign up today.
Thank you so much to all our volunteers!

Donald Ficken	58 events; 120.7 hrs
Cook Feldman	31 events; 118 hrs
James Small	26 events; 93 hrs
Michelle Birch	21 events; 54.3 hrs
Mark Jones	20 events; 71 hrs
Bradley Waller	20 events; 64 hrs
Frank Mack	19 events; 57 hrs
John Beaury	17 events; 75 hrs
Rich Heuermann	16 events; 52 hrs
Larry Campbell	16 events; 36 hrs
Richard Jennings	13 events; 32.5 hrs
Sharon Bertram	8 events; 28 hrs
William Neubert	8 events; 27.5 hrs
Rick Menendez	8 events; 27 hrs

Bill Breeden	5 events; 16.5 hrs
Rita Breeden	5 events; 16.5 hrs
William Winningham	3 events; 13 hrs
Raymond Mueller	3 events; 11.5 hrs
Josh Zitko	3 events; 10 hrs
Chris Nobbe	2 events; 10 hrs
Alan Sapia	2 events; 8 hrs
Jim Trull	2 events; 7 hrs
Tom Keutzer	2 events; 6.5 hrs
Anthony Russo	2 events; 6 hrs
Richard Fefferman	2 events; 6 hrs
John Boncek	2 events; 5 hrs
Benjamin Winningham	2 events; 4 hrs
Bill Bierrmann	2 events; 4 hrs
Brian Mills	1 events; 8 hrs
Thane Bopp	1 events; 8 hrs
Donald Snyder	1 events; 6 hrs
Robert Drzymala	1 events; 5 hrs
Timothy Hulla	1 events; 5 hrs
Cathy Hooper	1 events; 4 hrs
Jeffrey Strauss	1 events; 4 hrs
Ann Trull	1 events; 3 hrs
John Edwards	1 events; 3 hrs
Murray Fishman	1 events; 3 hrs
Gregory Pernoud	1 events; 2 hrs

Time Flies

by
Grant Martin

“Time flies, then you panic”. A truism experienced by most of us - especially me. I remember the first time I found out about the TOTAL solar eclipse that was going to happen right here in The Lou! They said August of 2017. I was all like “I better start preparing now!” That was 50 years ago. Where oh where has the time gone?

I’ll tell ya where: Life. Time slips by and before we know it, we’re pulling up on a once in a lifetime event like a speeding car to an intersection with a light that just turned red.

The August SLAS meeting marks 31 days before the eclipse. Are you ready? I thought so. Neither am I. So much to do, so much to plan, so much forgotten till the last minute. And really, you don’t think 31 days isn’t the last minute? Really? After being given 50 years to prepare and plan? Yeah, me too.

A while ago I attended a totally excellent expo covering the eclipse. Don Ficken, Jim Small and the rest of the expo volunteers need some kind of reward for what they put together. They covered more bases with more detail than I could ever imagine. Learned a few things I did. Added more than a few days to my planning and preparation schedule it did – dangit.

Here’s what they covered: Eclipse resources, Emergency management, Interstate travel, local travel, Weather predictions, How to photograph the eclipse (Two separate & different sessions), Safe solar observing, Circumstances of the eclipse, Types of solar observing, Where to observe the eclipse, HOW to observe the eclipse, Things you’ll need to have and things you’ll need to be aware of. Man, the list goes on.

Bullet points all. They drilled down to a medium level of detail. There were some things I had not considered and when I started digging into the nitty gritty, I found that four weeks (31 days actually, almost two fortnights) might almost be enough time to get half the things ready that I need to get ready. I’m now spending more time striking things OFF the list than I am completing things ON the list (I suppose that counts as making progress on completing the list though doesn’t it?).

Things leaving the list include such luxuries as lodging. I procrastinated on making reservations earlier in the decade - even at a roach motel 30 miles from any part of the centerline so now it’s too late to do so – but hey, I do have a van and there WAS that EXCELLENT primer on

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Jul 16 36 days left	Jul 17 35 days left	Jul 18 34 days left	Jul 19 33 days left	Jul 20 32 days left	Jul 21 31 days left	Jul 22 30 days left
Week 5		Tentative eclipse workshop			SLAS meeting	
Jul 23 29 days left	Jul 24 28 days left	Jul 25 27 days left	Jul 26 26 days left	Jul 27 25 days left	Jul 28 24 days left	Jul 29 23 days left
Week 4			Postponed AP sig with equipment DIY		TK dentist 1230	
Jul 30 22 days left	Jul 31 21 days left	Aug 1 20 days left	Aug 2 19 days left	Aug 3 18 days left	Aug 4 17 days left	Aug 5 16 days left
Week 3			Tentative eclipse workshop	Beginners meeting		
Aug 6 15 days left	Aug 7 14 days left	Aug 8 13 days left	Aug 9 12 days left	Aug 10 11 days left	Aug 11 10 days left	Aug 12 9 days left
Week 2			Tentative eclipse workshop			ASEM meeting
Aug 13 8 days left	Aug 14 7 days left	Aug 15 6 days left	Aug 16 5 days left	Aug 17 4 days left	Aug 18 3 days left	Aug 19 2 days left
Week 1					SLAS meeting	
Aug 20 1 days left	AUG 21 0 days left	Aug 22	Aug 23	Aug 24	Aug 25	Aug 26
Week 0	Eclipse	AP SIG	DIY SIG			

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weather predictions given by the crack meteorological team of Cindy Preszler and Mike Roberts...

On the bright side, I can live in that van down by the river (near any part of the centerline) while I wait for the eclipse to start. The weather portion of the expo convinced me that paying good money to reserve a high priced room on the centerline might get me nothing more than a dry place to watch the eclipse on TV - between storm induced power outages - mobility appears to be the key to seeing the eclipse under CLEAR skies. So there is that.

Time to get serious: Time really is slipping by (I have to have this article submitted in 30 minutes).

I have included a calendar showing how little time we really do have left. The calendar includes known eclipse related events & meetings - chances to compare notes and revise plans. Of note is the July 26 AP Sig. If you are interested in photographing the eclipse (and protecting your equipment from the sun), this is the meeting to get to. I'm not sure of the beginners meeting topic on August 3rd but the organizers are saying it's going to be eclipse related. Stay tuned for more.

The calendar also shows three tentative nights reserved at the Weldon Springs containment site. These nights are being reserved for several eclipse planning & equipment workshops. Stay tuned to the local Yahoo and facebook astronomy groups for upcoming details. Meetings are open to all.

One of the big takeaways from the expo is this: We won't really have a good idea where the clear areas along the center line will be until Saturday August 19th. If you're mobile, that gives you less than two days travel time to get to a clear sky location. It's clear that by Monday August 14, we should be packed up and ready to move to a place that gives provides us that 36 hour travel window - that pretty much eliminates a week that can be used to prepare and test equipment. Time flies when you're having fun doesn't it?

Do you have your photography plans in place for the eclipse? At right is a series of photographs taken by Jim Melka of the 1994 annular eclipse in St. Louis.

Be sure to prepare for the eclipse by practicing what you plan to do with your set up for photography/observing!

Make a checklist of equipment, make sure all batteries are charged and most of all, KISS! (Keep it simple, stupid!) You don't want to miss the eclipse because you were messing with your equipment!

Tired of all that bright light spilling over and ruining the view?

Well get your SLAS Bino Bandits and observe happily!


Easily slips on almost any pair of binoculars!

Blocks out all that stray light coming from streetlights, headlights and even that pesky sun when you're squinting to see all those sunspots (or that once in a lifetime solar eclipse). Great for urban night time use as it reduces all that man made light and lets you concentrate on the objects - not trying to block out that neighbors annoying side light or that street light.

Get em at the next two meetings for only \$10.00 each! Get one for each of your special binocular instruments! Only available from your SLAS merchandise store!




Annular Eclipse of the Sun imaged in Chesterfield, MO May 10, 1994 with clear skies



2nd contact 11:50:37 CDT Middle of eclipse 11:52:53 CDT 3rd contact 11:55:08 CDT

Eight-inch f/5 Newton and 4" nickel-chrome solar filter
Color slide film with 35mm SLR and 1.25" Erfle eyepiece
(latitude, longitude): (38.660° N, 90.517° W)
Jim Melka and data from NASA - GOOGLE interactive map



Above: Crowd at the panel discussion for the meeting Friday night, Christian Greer was the MC.

Below right: Exhibitors speakers area.

Bottom left: The SLAS booth manned by Marlene Bopp and Nancy Clark. Thanks! They ran the drawing for a telescope giveaway courtesy of Explore Scientific!

Inset: Looking over the 56 foot eclipse map.

Below left: One of the 11 activity areas.

Bottom right: You guessed it! Flat Earth!



International Space Development Conference Report

by
Rick Menedez

When Christine Nobbe told me that there was going to be a space conference at Union Station I assume it was going to be a small gathering of a few speakers discussing space travel topics. Having been partially involved in the local group which consists of a few members and after attending a couple of the planning sessions I assumed it would be at best something smaller than a Mid-States convention. I thought it would have just a few dozen attendee's and perhaps one good and a bunch of low level speakers (guys like me) giving presentations. Plus the base cost of 300+ dollars was I thought way too high to hear a few speakers, despite the discounts she mentioned.

To say I missed the mark is probably the greatest understatement of my life! This was a huge 5 day event with world class engineers, global corporations, entrepreneurs and government officials who were experts on all aspects of space travel and space business. This was truly an international event with attendees from all over the country and the world; as far away as Romania, Pakistan and Japan. This wasn't just a few speakers but 70+ world renowned authors, such as Robert Zubrin, and top engineers who are leading the way into space and frankly leaving NASA in the review mirror.

The conference was 5 days of talks and demonstrations running from 9am till 9pm ranging from huge ballrooms with hundreds of attendees to small groups of a dozen or so. Topics were too many to list ranging from developing much cheaper rockets, space settlement, tourism and asteroid mining business opportunities, to plans to colonize and create self sustaining colonies on Mars and the Moon. Future robotic exploration and the next generation of space telescopes covered my astronomy interest but there was so much more. The biggest problem I had was which speaker to attend. They were all inspiring and really opened my mind to an industry that I didn't know even existed.

The smaller groups ranged from the Chicago society's set up of a space speaker's bureau to student design projects to look for alternative approaches to solving the problems associated with living and traveling into space. One of the most remarkable talks was by two 7 and 4 year children who used satellite imagery to detect drought and to warn nearby countries of an expected influx of refugees

The main speakers had truly remarkable ideas and concrete engineering plans for space elevators and an evacuated tube that would be lifted up to 80 miles above the Earth using centrifugal force. This tube would be reached using smaller space elevators and would carry a maglev train for rapid transit across large portions of the Earth. It

would be paid for by selling parts of tube for resort homes (this is how London Bridge was financed) and could be used as a stepping stone for building and launching spacecraft into Earth orbit and deep space.

Again many of these are concrete plans with hardware being tested as we speak. Many sessions covered space business with far sighted entrepreneurs getting in at the ground level of the potential bonanza in space. Paul Allen and Jeff Bezo's are just of the few of the many who will become the next Bill Gates in the next few decades. I thought NASA was the only one playing the game but now I know there are hundreds involved in a world wide industry ready to create our future in space.

In my opinion the best speaker was Robert Zubrin who made a very convincing argument with concrete plans to get to Mars at a much more affordable cost than the way NASA is planning on doing this. This was a recurring theme throughout the conference. That NASA was a bogged down bureaucracy who's main role now is to get political support to create jobs and stretch out programs as long as they can; sort of like the military industrial complex. It took a young NASA using slide rules 6 years to build the Saturn 5. Now it's spent 15+ years using modern computers and materials to develop a comparable booster. Space X and others are doing the same job using free market efficiencies to develop comparable rockets at a much cheaper cost.

Another debate was the direct to Mars versus going to the Moon/space station route. I'm for both but I became convinced that going direct to Mars, because of the available resources, is better than going to the Moon first.

Hope for the Future

This conference was so much more than I expected. I got in free for volunteering (although I spent over \$100 for parking fees) but I would truly have spent over \$1000 for this mental vacation into space. It wasn't just learning about mind expanding new ideas that got me excited this space conference was so much more than that. It gave me hope for the future and I left on a mental high like I've never experienced before.

As a teacher of geography I'm constantly teaching my students about how we are polluting and destroying our planet in a constant search for food, fuel and natural resources. Many of the wars we've fought (i.e. WWII) were started by countries who felt they had to take the resources of their neighbors to maintain their economies. Much of our military resources are spent protecting our access to the oil rich areas of the world. I also assumed that it would be increasingly expensive to get the resources required to elevate the globe's population to a reasonable standard of living and that to do so would cause irreparable harm to and eventually destroy the environment through pollution, climate change and destruction of habitat.

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ISDC

This conference opened my eyes to the limitless resources that space has to offer. We've got a near endless supply of minerals through asteroid mining and energy from space power satellites to name a few. We can do this without wrecking the planet or imposing constraints on economic or population growth. The future entrepreneurs will soon lead us, using concrete, financially sound, plans to the Promised Land. This land will open up possibilities we never dreamed of and possibly end many of the conflicts of who owns what.

The ultimate goal is to put heavy industry and mining into space and turn Earth into a lush Garden of Eden and return it to its natural beauty and in the process save humans and the many species that are going extinct. Is this a pipe dream? If you had attended this conference you would have certainly realized that we are on the verge of this happening.

COMET WORKSHOP AUGUST 23

St. Louis Astronomical Society members are invited to the Sixth International Workshop on Cometary Astronomy (IWCA VI)

(<http://www.icq.eps.harvard.edu/IWCA6.html>), to be held

Wednesday, August 23, 9:00 a.m.-5:00 p.m.,

at Washington University, Rudolph Hall, Room 204.

IWCA VI is sponsored by the *International Comet Quarterly* (Harvard University) and the Department of Earth and Planetary Sciences, Washington University. Previous IWCA's have been held in Selvina, Italy, Cambridge, England, Paris, Shanghai, and Riode Janeiro,

usually in association with an astronomical event (in this case, the total solar eclipse) that tends to attract international astronomical visitors to a region.

There is no registration fee. A light breakfast and refreshments during breaks will be provided.

Please RSVP to Joe Marcus, local organizer at

josephnmarcus@gmail.com or 314.993.5340).

Volunteer assistance is welcomed.

Come Meet the Festus Rocket Team!

It is too hot outside, so you are invited inside to attend St. Louis Space Frontier's July meeting! Meet the Festus Rocket Team, winner of the June 2017 International Rocketry Challenge in Paris, and hear about their high-flying adventures. Enjoy fire-y snacks! Learn about Thermionic Emissions in a brief presentation by Dabney Tolson.

Details: • Saturday, July 22 • 12:15pm

• Oak Bend Library 842 S Holmes Ave, Saint Louis, MO

(please note that we are NOT holding this meeting at WashU)

Please invite others who are interested in rockets and rocket propulsion!

To learn more about the team's big win see:

http://www.stltoday.com/lifestyles/columns/joe-holleman/festus-high-rocket-club-wins-world-championship-in-paris/article_3d34e46f-2e9c-5eb0-a969-6ecc5e7da1c6.html

<http://www.aia-aerospace.org/news/u-s-rocketry-students-impress-at-internationals-win-gold/>

SLAS Executive Board Meeting Minutes June 7, 2017

Opening Activities: Attending: Jim Small, Brent Buch, Brad Waller, Bill Winningham, Mark Jones, Rich Heuermann. Meeting opened at 7pm. May Meeting minutes distributed before the meeting. Jim motion to accept minute Brent second motion passed

2. External Business Next board meeting: Jul 5, Wed, Aug 9, Sep 7, Oct 5, Nov 9, Dec 7. July first Friday has been cancelled due to Planetarium being closed for special event

3. Director Reports:

President – Jim Small: 1. Expo is really gearing up. 4400 visitors registered (have you registered??) 70 exhibitors. eclipseexpo.org 2. 281 tickets sold for Friday night meeting. Limit 600. (do you have yours yet?) 3. Mid-States June 9-11 Registration link at msral.org 4. ISDC May 25-29. Was great! Talked to over 200 people every day. Great star party Sunday night. Lots of student groups from India, South Korea, Japan, China and Romania. Worth the time. 5. We need to set up a meeting tonight for recognition committee sometime after the Expo. 6. Social networking committee should meet after the expo. 7. Loaner scope transfer: Loaner scope selloff before the July meeting for SLAS members, Auction at the meeting if not sold by then. Transfer of loaner scopes to Jim Small's house will take place after expo. 9. Elections: Thanks for volunteering for another year!

Vice President: Brad Reflective Vests Project – Current inventory most are shirts, 5 only vests, other items were shirts and some pants. Need to go forward with buying the vests with logos Business Cards: For VP contact information to hand out to potential speakers. Brad proposed to buy Avery cards and print as needed. Brad will buy thumb drives to allow Brent to copy meeting video. Expense will come out of Speaker Budget Funds for DVDs (Blank) for our Presenters, New SLAS Hand-out Cards, on hold

Ideas for new SLAS Mug best member Solar Eclipse Photo Telescope for Kansas HS Astronomy Club, Speaker for 2018: Permission from the Board
2017 Speakers *16 June - Eclipse Panel Discussion, *21 July - Ryan Clegg-Watkins, PhD Exploring the Moon from Orbit: Paving the Way for Future Astronaut Explorers, *18 August - TBA, *15 Sept - Solar Eclipse Results, *20 Oct - Henric Krawczynski, PhD Exploring the Space-time around Supermassive Black Holes w/ Gravitational Lenses, *17 Nov - William McKinnon, PhD PLUTO, *15 Dec - Amy E Kimball Radio Quasars & the VLA "Skype"
2018 Speakers *19 Jan- Carl Bender, PhD Black Holes and Hawking Radiation, *16 Feb - Ryan Ogiore, PhD From Stardust to the Solar System, *16 March - Michael Medford Discovering Planet 9 (10) "Skype", *20 April - Kun Wang, PhD New Evidence for the Origin of the Moon, *19 Oct - Francesc Ferrer, PhD In the wake of Higgs, what will the next breakthrough at LHC?

Summer Solstice 2017 Winners *Michelle Birch, McDonald Observatory Membership, *James Small, McDonald Observatory Membership, *Wayne Clark S & T Pocket Sky Atlas, *Rick Menendez ISDC 2017 Fees (\$25)

August meeting ideas: Weatherman, partner with Science Center, opportunity to really promote SLAS? Who will be here? Who will need time to travel/prepare? Informational meeting: Weather, Safety, Where to go,

Astro 101 – July – Solar Eclipse Apps of cell phone brackets, August?

Welcome aboard new members meeting still planned for each month.

Secretary – Mark Jones: No report

Treasurer/ALCor – Bill Winningham: Reports thru end of May sent out before the meeting. Two biggest projects for the year, LTP and Eclipse Expo have a lot of income but expenses will be paid by end of July. Expense are under budget by \$800. Membership income is ahead of budget by \$590. St Louis County Library Eclipses Related Programs income should be received by end of July. \$750 in donations received this year. Board might want to consider the SLAS meeting after the expo the possibility to buy more eclipse glasses

Hospitality – Larry Campbell: No report **Membership recognition –** Committee meeting? Sometime after expo? Invites for committee? Program determined by July meeting? Is that a reasonable deadline? Or should we wait until after the eclipse?

Board member at large reports

Brent Buch (2018) Working on ZAMP installed an apache webserver hosting tool. Working on free video file share. By next meeting Brent plans to demo the video share set up on his laptop.

Rich Heuermann (2019) ISDC good flow through SLAS exhibit. Door prizes delivered to ISDC (solar bino, and 10x50 bino). Eclipse programs are continuing indoor program draw better than out door programs. Trout Lodge – Has drawn down from Trout Lodge Escrow Account. 42 Galileoscopes received from Washington U. Rich H has transfer letter and will give to Don Ficken. Rich will submit receipts to AAS and report and AAS will send check for the \$5000 grant.

Tom Nickelson: (2020) No report

4. Committee Reports: If needed

Library Telescope Program: latest build results. 97 Galileoscope solar built, 8 StarBlast LTP

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

Newsletter – Articles and pictures (especially pictures) are welcome to beef up the newsletter and our social media outlets. Please forward to news-letter@slasonline.org Discussion about redesign of brochure and what to do with them. (content, replace with cards, supplement with cards, reduce to front and back handout, etc.)

Website – www.slasonline.org/joomla plans in place to activate new edition of website before the expo

Social Networking – Public Facebook and twitter accounts going well. Submit pictures to Michelle for incorporation into facebook account, both ID's are stlastro Facebook pages are also active for the eclipse and for the expo. Private facebook page is also active Members-Only FB: <https://www.facebook.com/groups/slasonline/> Public FB: <https://www.facebook.com/stlastro/> <https://www.facebook.com/stlouiseclipse2017/> <https://www.facebook.com/eclipseme> Twitter - @stlatro

Night Sky Network – Donated 3200 eclipse glasses as part of MegaMovie project. These will be given away at EclipseExpo.

Loaner – Scopes More donations: 10" Meade LX200 ACF w/tripod and GPS, another possible LX200 with no tripod, 4.5" Meade 4500 equatorial reflector with slow motion controls. Scope sale will likely be at the July meeting before the eclipse. There will likely be a sale of Sky and Telescope and other magazines and possibly books at the same time.

Publicity – SLAS June press release should be out by June 8th

Star Parties: Review of outreach events next 3 months

5. Old Business Board agrees to table the proposal to Membership committee. Recognition Proposal from December 2016. An annual membership recognition award called "The Lois Fitter Lifetime Outreach Award" be created to recognize long-time outreach volunteers who have volunteered for 5 or more years of outreach for the society with a minimum of 5 events per year. A nomination form and selection committee will be created by the membership recognition chair and the award will be presented (if nominations are available) when outreach volunteer recognition pins are presented. Discussion took place with Board. Proposal was moved to Recognition Committee for development of a comprehensive recognition program that goes beyond Outreach. Prior to meeting Mark Jones sent out the following ideas for recognition awards for members and non-members who support our mission:

The Lois Fitter Outreach Award - given to most dedicated or most improved outreach participant or coordinator must be a SLAS member

The Stuart O'Byrne Founders Award - given to board or committee person for service to SLAS, must be a SLAS member

The Dick Schwartz Supportive Faculty Award - given to local educator at HS or college level who support SLAS mission don't have to be SLAS member

The Robert Cox Popular Astronomy Award - given to person having major contribution to popularizing astronomy does not have to be SLAS member

The Al Woods Mentoring Award - given to local amateur contributing to mentorship in astronomy, telescope and gadget making.

6. New Business

7. Closing Activities Meeting adjourned 9:06pm

10:02 PM
07/20/17
Accrual Basis

**St. Louis Astronomical Society
Profit & Loss Budget vs. Actual
January through June 2017**

	<u>Jan - Jun 17</u>	<u>Budget</u>	<u>\$ Over Budget</u>
Ordinary Income/Expense			
Income			
Total Magazine Subscription	709.09	224.65	484.44
Membership Dues	2,190.00	1,315.00	875.00
Total Income	2,899.09	1,539.65	1,359.44
Cost of Goods Sold			
Total Magazine Subscriptions	446.30	224.65	221.65
Merchandise		22.50	(22.50)
Total COGS	446.30	247.15	199.15
Gross Profit	2,452.79	1,292.50	1,160.29
Expense			
1-Programs & Events	1,088.55	1,405.00	(316.45)
2-Newsletter	97.31	88.00	9.31
3-Library expense	49.95	150.00	(100.05)
4-Astronomical League Dues		670.00	(670.00)
5-Loaner Scopes	5.00	25.00	(20.00)
7-Insurance*	825.50	380.00	445.50
8-Website	179.40	170.00	9.40
9-Administrative Expenses	157.12	824.00	(666.88)
Total Expense	2,402.83	3,712.00	(1,309.17)
Net Ordinary Income	49.96	(2,419.50)	2,469.46
Other Income/Expense			
Other Income			
Donations	850.00	0.00	850.00
Eclipse Escrow Receipts	12,479.40	0.00	12,479.40
Interest Income	26.66	50.00	(23.34)
LTP Receipts	3,039.84	0.00	3,039.84
Proceeds from Lens Sales	7,303.37	0.00	7,303.37
Total Other Income	23,699.27	50.00	23,649.27
Other Expense			
Eclipse Escrow Disbursements	9,021.74	0.00	9,021.74
Eclipse Escrow Funding***	1,500.00	1,000.00	500.00
LTP Disbursements	3,601.94	0.00	3,601.94
LTP Escrow Funding	1,000.00	1,000.00	0.00
Total Other Expense	15,123.68	2,000.00	13,123.68
Net Other Income	8,575.59	(1,950.00)	10,525.59
Net Income	8,625.55	(4,369.50)	12,995.05

* Reflects expanded insurance coverage over prior years

** Outreach budget reflects \$150 approved by membership vote as a donation towards the International Space Development Conference.

*** Includes \$500 in St. Louis County Library donations associated with Eclipse related events.

**St. Louis Astronomical Society
Balance Sheet**

As of June 30, 2017

	<u>Dec 31, 16</u>	<u>Jun 30, 17</u>
ASSETS		
Current Assets		
Checking/Savings		
Checking - First Bank	3,957.19	2,461.19
Deposit, Certificate of	20,148.49	20,168.54
Library Telescope Escrow	799.33	296.71
PayPal	126.42	420.35
Savings - First Bank	29,755.97	37,065.95
SLAS Eclipse Conference Escrow	6,259.97	9,047.55
YMCA Trout Lodge Escrow	542.87	482.87
Total Checking/Savings	61,590.24	69,943.16
Other Current Assets		
Inventory Asset	1,360.92	1,360.92
Undeposited Funds	0.00	272.63
Total Other Current Assets	1,360.92	1,633.55
Total Current Assets	62,951.16	71,576.71
Total Fixed Assets	0.00	0.00
TOTAL ASSETS	62,951.16	71,576.71
LIABILITIES & EQUITY		
Equity		
Opening Bal Equity	8,137.66	8,137.66
Retained Earnings	24,813.26	54,813.50
Net Income	30,000.24	8,625.55
Total Equity	62,951.16	71,576.71
TOTAL LIABILITIES & EQUITY	62,951.16	71,576.71

**WANTED: Newsletter Articles
and Pictures!**

**The Event Horizon needs articles
and pictures from people like YOU!**

**Interviews, current astronomy
topics, historical articles, star party
reports, 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 meet-
ing and we can show you how on the comput-
er after the meeting. Or contact any board or
committee member to find out. See you at
the next star party!**

SLAS EVENTS

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.

2017: Aug 2 (Wed); Sep 7; Oct 5; Nov 9; Dec 7

Dark Sky Observing Dates

See you when it gets warmer!! Use SlasDialogs or Facebook to coordinate winter events!

Francis Park Events: These events are on **Wednesdays the week nearest the first quarter Moon** July 26, August 30, September 27, October 25

Sky Orienteering Events For members who want to gather and do some relaxed observing at Babler State Park orienteering. Please RSVP if you plan to come!

2017-08-13 8:00 PM
2017-09-17 7:00 PM 2017-10-15 6:30 PM
2017-11-12 6:00 PM 2017-12-10 5:30 PM

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

YMCA Edward Jones Star Parties (generally third Mondays)

Pattonville Observatory Public Viewing Dates

Broemmelsiek Astronomy Park Public Viewing
Every Friday night with ASEM members

UMSL Observatory
For directions and map
<http://www.umsi.edu/~physics/About%20the%20Department/astro.html>

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

Skywatch Hotline: 314-516-5706

Saturdays:

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.

July

21 Fri Bee Tree Park Day Camp
21 Fri SLAS Regular Meeting (Wash U)
22 Sat SLAS Dark Sky Observing
24 Mon Grants View Library Eclipse
25 Tue Cliff Cave View Library Eclipse
26 Wed Francis Park Stargazing
26 Wed Grand Glaize Library
27 Thur Weber Road Library Eclipse
29 Sat Webster Groves Solar Program

August

2 Wed SLAS board meeting
4 Fri SLSC Public Telescope Viewing
5 Sat Learn about the 2017 Total Solar Eclipse
6 Sun Stargazing at the Gateway Arch
6 Sun 2017 MoLSAMP Summer Soph exp
8 Tue Solar Eclipse Preparedness
13 Sun SLAS Sky Orienteering
13 Sun Sidewalk Solar Observing
18 Fri SLAS Regular Meeting
19 Sat SLAS Dark Sky Observing

21 Monday Total Solar Eclipse!

30 Wed Francis Park Stargazing

September

1 Fri SLSC Public Telescope Viewing
3 Sun Stargazing at the Gateway Arch
6 Wed STL HQ Library Telescope program
7 Thur SLAS board meeting

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

COMMITTEE CHAIRS

Dark Site Coordinator <i>Mark Jones</i>	636-394-2342
darksite at slasonline.org	
Librarian <i>Jim Small</i>	314-909-7211
librarian at slasonline.org	
Library Telescope Program <i>Don Ficken</i>	636-851-9630
librarytelescope at slasonline.org	
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Merchandise <i>Vacant</i>	
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Social Media <i>Michelle Birch</i>	636-373-1102
social at slasonline.org	
'SLASdialogs' Moderator <i>Mark Jones, Rhonda Whelan</i>	
dialogsmoderator at yahoo.com	
Star Party Coordinator <i>Bill Breeden</i>	314-276-3613
starparty at slasonline.org	
Telescope Making <i>Bill Davis, Jim Melka</i>	314-469-3061
telescope at slasonline.org	
Webmaster <i>Jim Small</i>	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>

Follow us on
Twitter: @stlastro
Facebook: @stlastro

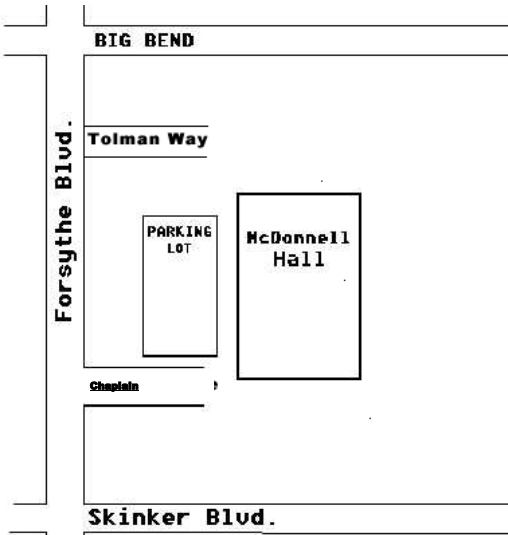


Who We Are and What We Do

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

