



VOL. 54 NO.2  
MAR/APR 2024



Find us on Facebook!

<https://www.facebook.com/groups/SLAS.Talk/>

<https://www.facebook.com/UtahStarParty>

<https://www.facebook.com/UtahSPOC>



SLASBROCHURE.pdf



SLAS.US

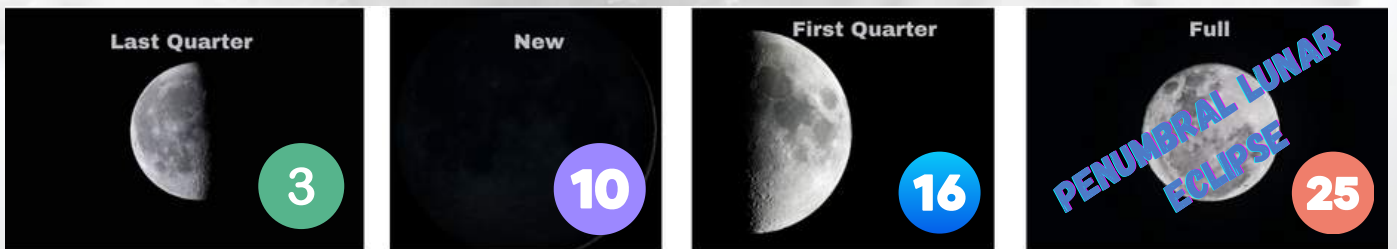


## MOON PHASES

SOURCE: MOONPHASES.ORG

Utah, (Calculated Time Zone: America/Denver (MST), GMT-07:00)

### MARCH 2024



### APRIL 2024



**Penumbral Lunar Eclipse:** Visible in Salt Lake City beginning at 10:53 pm Sunday, March 24, 2024, reaching the maximum at 1:12 am on Monday, March 25, 2024, and ending at 3:32 am Monday, March 25, 2024.

# SLAS OFFICERS

## SLAS Board of Directors

President: Don Abernathy

Vice President: Aleta Cox

Secretary/Treasurer: Krista Lemoine

Board Members at Large: Trevor Hebditch and Marlene Egger



## Appointed Positions

Astronomical League Contact: Aleta Cox

Equipment Manager: Trevor Hebditch and Aleta Cox

Library Loaner Telescope Coordinator: Joan Carman

Historian: Patrick Wiggins

NASA Night Sky Ambassador: Krista Lemoine

Nova Newsletter Editor: Jenette Scott

Observatory Director: Jim Keane

Private Star Party Coordinator: Don Colton

Webmaster: Ken Warner

ZAP Grant Writer: Jim Keane

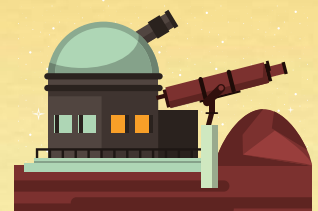


## SPOC Advisory Committee

Chair: Jim Keane

Members: Don Abernathy, Bob Moore, Patrick Wiggins, Luke Moses, Jim Keane, John Drabik, Leslie Fowler, Bill Kennedy.

Members As Obser. Dir. Emeritus: Bruce Grim, Rodger Fry.



## SPOC Telescope Instruction Coordinators

Bogdan Refractor: Marlene Egger

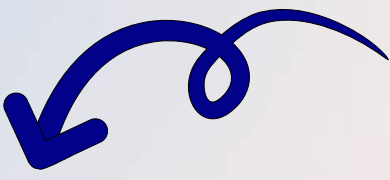
Ealing: Jim Keane

Grim: Rodger Fry

Clements: Leslie Fowler

Contact board: board@slas.us

contact editor: astrobug3027@gmail.com




# Messier Marathon

at the Knolls Recreation area on the evening of Friday, March 8, 2024, with a 5 pm-6:00 pm set up time since sunset is 6:28 pm that night and we need to get those first objects ASAP before they set. This is a call for any fellow astronomy nerds to join us!! If the weather is not cooperating, we will try again on Saturday, March 9, 2024, same time, same place. Make sure you bring **WATER** with you!! There is no potable water at this site. This is also a **"Leave No Trace"** site. **Anything you bring in, you MUST take out with you.** There are toilet facilities, and the setup will be near the toilets. It is also recommended you bring your food/snacks. If this is your first Messier Marathon, make sure you dress very warm. It is no joke to say that it gets bitterly cold! You may also want to bring a tarp or some other protective cover to lie on the ground to put your equipment on as it is a very dusty area. We always have a lot of fun! Here is the link for directions: <https://www.blm.gov/visit/knolls-highway-vehicle-special-recreation-management-area-srma?fbclid=IwAR3kkXLTTeO4YIDEXxRXXlO2wLw2Mr8bNWSL37GzxxjMc8VYIsNBq6Kti-o>

Knolls is about 80 miles west of Salt Lake City off of I-80. Geographic Coordinates are 40.71977778 N, -113.2851389 W. The Messier Marathon log sheet can be located here: <http://slas.us/docs/SLAS-MessierMarathon-Logs.pdf> Also, please note that the Messier Marathon Weekend is also Daylight Savings time and we will be leaping a head 1 hour at 2 am Sunday, March 10. This will affect the Messier Marathon.

### What is a Messier Marathon?



- Special time of year when all 109-110 Messier objects are visible during the same night, and an individual or group of astronomers attempt to find all (or most) on that New Moon night (or closest weekend).
- Between March and April. Between +40 North and -20 South Latitude.
- Not the longest night (late Dec) 12 hrs 45 min (5:30PM-6:15AM), but March would be better than April.
- John Kirchoff normally sets up a March Messier Marathon at Lake Hudson for all the local clubs – Working together with a group makes it more enjoyable and team support keeps you going.



Come one, Come All to the

## Messier Marathon!

\*Date

### At the Knolls Off-Highway Vehicle Special Recreation Management Area (SRMA)

Set up between 5 pm -6 pm

We will set up by the toilet facilities


BRING WATER! There is no potable water here. It is also recommended to bring food/snacks.

\*Incase of inclement weather, we will try again on Saturday, March 9. Same time and place.


### Planning for a Messier Marathon

- ☆ Pick a time and place
- ☆ Prepare equipment checklist
  - Telescope / Binoculars    - Eyepieces
  - Red Light                    - Charts
  - Food / Drinks                - Table / Chair
  - Sleeping Bag                 - Alarm Clock
  - Warm Clothes                - Batteries
- ☆ Plan to arrive at the Marathon site and set up equipment before sunset

Scan QR Code for directions




### So who is this Messier person?



- ☆ Charles Messier (1730 – 1817)
- ☆ A French astronomer and the Greatest Comet hunter of his time
- ☆ Influenced by a bright comet in 1744, Messier left home at the age of 21 to pursue his dreams
- ☆ Messier was credited with the discovery/recovery of 13 comets during his career
- ☆ Messier occasionally came across objects that looked like comets, but were not. He published 3 catalogues describing 103 deep sky objects

Scan QR Code for Messier Marathon Log Sheet



source: [PPT](#)

# Messier Marathon

## Code of



## Understanding

- 1.) This **is not** a SLAS-sponsored event. This is a few friends who get together (weather permitting) every year and decided to invite others to come along.
- 2.) This **is not** a public star party. You will need to bring your own telescope and equipment. This event has the word "marathon" in it for a reason. It is a well-planned fast-paced sky hopping event. We don't have time to sit on one object long enough for a line of people to get a look at what is in the eyepiece. This is a sundown to sunup marathon and our goal is to get all 110 objects before they are washed out by the sun.
- 3.) Good astronomers and astrophotographers respect the area they are observing in. They do not trash the area. If you bring it in with you, you need to take it out with you. We behave like good citizens and respect nature and property.
- 4.) We **are not** liable for damages. If you break something of someone else's, or if you break your equipment, you are responsible for paying for those damages. So, please don't touch it if it isn't yours unless you have permission, and please be mindful and careful of the space others are occupying. If you aren't planning to stay all night, it would be appreciated if you park your car in such a way that the light will not disturb other's night vision when you leave.
- 5.) This **will not** take place at SPOC. SPOC **never was** a consideration. The observatory sits too much in a bowl and has light pollution.
- 6.) If you hate the idea of a Messier Marathon, that is fine. You **do not** need to come. But please **do not** spoil the fun for others with negative comments. Sometimes it is better to leave opinions to ourselves.
- 7.) This is an **all-night event** in the early spring. It still gets very cold. Please make sure you dress appropriately. No one can tell you what that looks like for your body. We all metabolize differently. So if you know you run on the cold side and need to pile on the blankets in the winter, you better bring lots of layers to keep yourself warm. **We aren't** responsible for bodily harm or medical bills.
- 8.) **Bring water.** This cannot be emphasized enough. There is no potable water where we are going and dehydration is a real thing even in winter weather. Bring any food, snacks, or other things you may need as well. We won't have extra supplies.
- 9.) Please **don't** plan on building any campfires. The smoke hinders visibility, and the light from the fire ruins night vision and is a problem when trying to view fainter objects. It can also be damaging to observing equipment.
- 10.) Alcohol consumption and smoking around telescopes **is not** a good idea. If **you choose** to inebriate yourself with alcohol (or other logic-hindering substances), we **are not** responsible for the consequences you may suffer from that choice. You are solely responsible for any DUI's, accidents, or monetary consequences you incur upon yourself. So, please, do everyone including yourself a big favor and **just don't bring it.**
- 11.) Lastly, this is supposed to be an enjoyable event. So please enjoy yourselves, make new friends, and share in the wonder of our beautiful universe!



# SLAS General Meeting Guest Speakers

March 20, 2024



Jonathan Barnes

## Sounds in Space

**“Many things astronomers study may have more connection to sound than it does light. I’ll briefly go through a few of these topics and let you hear the actual sounds of space (the Sun, Mars, space travel) and then present a representation in sound of other incredible phenomena, such as the collisions of black holes and the rhythms of other space objects, some of which have been the center of my personal science interest.”**

Educated at Brigham Young University in Astronomy, Jonathan Barnes is currently the Associate Managing Editor for the Astronomical Society of the Pacific Conference series, having held that position since 2007. Day-to-day, Jonathan is the Associate Dean of the Natural Sciences and Engineering for Salt Lake Community College in Salt Lake City, Utah.

April 17, 2024



## The Great 2024 Eclipse

**First-hand experiences from SLAS members. Come hear what members of the Salt Lake Astronomical Society who traveled to the path of totality have to say about observing the April 8, solar eclipse and see what images they captured.**



# ALCON 2024

## GOING TO KANSAS CITY FOR STARS AND ALL THAT JAZZ!

### SPEAKERS INCLUDE

- \* Stephen Alexander, theoretical physicist, cosmologist, jazz saxophonist and author of *The Jazz of Physics*, a book that discusses the link between music and the structure of the universe
- \* David Levy, comet hunter, amateur astronomer and science writer
- \* Kelvin Stassun, Professor of Physics and Astronomy, Vanderbilt University
- \* Tim Russ, actor, musician, screenwriter, director and amateur astronomer



### EVENING EVENTS

- \* Gottlieb Planetarium
- \* Linda Hall Library, Rare Books Room
- \* StarBQ at Overland Park Arboretum
- \* Powell Observatory
- \* Awards Banquet

### VENDORS INCLUDE

- \* DayStar Filters
- \* Explore Scientific

JULY 17-20, 2024

DOUBLETREE BY HILTON, OVERLAND PARK, KANSAS



Room reservations are now open for the special ALCon rate at the beautiful **Overland Park DoubleTree Hotel**:

<https://group.doubletree.com/hp0506>

or scan the QR code to take you to the Double Tree booking site.

Once you are on the site, click "edit stay" on the upper right of the page to adjust your room nights. (The default is 6 nights!)



**Why stay at the DoubleTree? Sure, you have other choices, but**

You will avail yourself to having chance conversations and unexpected, but very enjoyable encounters with presenters, vendors, exhibitors, and other attendees who share your passion about astronomy.

And, of course, you will have the convenience of being situated where the action is – at "astronomy central." Fully experience the spark, enthusiasm, and excitement that ALCon brings!

**See you at ALCon 2024!**



## **Now's the Time to Plan Your Summer Stargazing Vacation Getaways!**



**May 2-5**

**Annual South Pacific Star Party (SPSP) 2024**

Ilford (Wiruna), New South Wales, Australia

<https://www.asnsw.com/spsp>

**June 1-8**

**Saguaro Astronomy Club Grand Canyon Star Party 2024**

North rim of Grand Canyon National Park, AZ

<https://www.saguaroastro.org/grand-canyon-star-party/>

**June 3-7**

**The Golden State Star Party 2024**

Frosty Acres Ranch near Adin, CA

<http://www.goldenstatestarparty.org>

**June 5-9**

**Rocky Mountain Star Stare 2024**

Starry Meadows just North of Gardner, Colorado

<http://www.rmss.org/>

**June 5-8**

**Bryce Canyon Astronomy Festival 2024**

Bryce Canyon, Utah

<https://www.nps.gov/brca/planyourvisit/astrofest.htm>

**June 6-9**

**Cherry Springs Star Party 2024**

Cherry Springs Park, PA

<http://www.cherrysprings.org>

**June 14 – 18**      **Golden State Star Party 2024**

Bieber, CA

<https://goldenstatestarparty.org/>

**July 3-6**            **Green Bank Star Quest 2024**

Green Bank, WV

<http://www.greenbankstarquest.org/>

**July 28 – Aug 2**    **The Nebraska Star Party 2024**

Merritt Reserve (Snake Campground) near Valentine, Nebraska

<http://www.nebraskastarparty.org/>

**July 30 – Aug 3**    **Oregon Star Party 2024**

Indian Trail Spring + Ochoco National Forest

<http://oregonstarparty.org>

**July 30 – Aug 4**    **Indiana Family Star Party 2024**

Camp Cullom, Mullberry, IN

<http://www.indianastars.com/starparty/>

**July 30 – Aug 3**    **Table Mountain Star Party 2024**

Eden Valley Guest Ranch, Oroville, WA

<http://www.tmspa.com/>

**Aug 3 – 11**         **Mount Kobau Star Party 2024**

Mt Kobau, Kelowna, British Columbia, Canada

<http://www.mksp.ca/>

**Aug 1 – 4**            **Stellafane 2024**

Breezy Hill, Springfield, VT

<http://stellafane.org/>





# Registration Is Now Open!



## 2024 Nightscaper Photo Conference

September 26 to 29 • Kanab, Utah

The Nightscape Photo Conference is an in-person event devoted to astro-landscape photographers, scientists, artists, and activists who wish to enjoy and preserve the night skies.

This fourth conference brings together some of the most impactful community members to share ideas, work with peers to craft images, and hone techniques for responsibly studying and documenting the quiet beauty of dark skies.

For more information and to register please click the link here:

<https://www.nightscaper.com/>



**Boise State University Physics Department Hosts Free First Friday Astronomy Talks**

**When:**

**FIRST FRIDAY OF EACH MONTH**

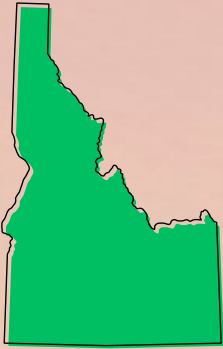
**IN PERSON AND ONLINE**

**7:30 PM - 9:30 PM**

**Location**

**BSU Education Building Room 112**

**BSU First Friday Astronomy Talk**



Boise State Physics hosts the First Friday Astronomy events on the First Friday of every month at 7:30p MT on Boise State's campus and online ([boi.st/astrobrancoslive](https://boi.st/astrobrancoslive)). Visit <https://www.boisestate.edu/physics/seminars-and-events/> for more information. These talks are entirely donation supported and open to the public.

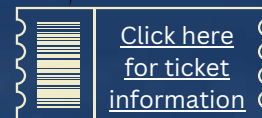
**NEAF<sup>TM</sup>**

**33rd Annual  
NORTHEAST  
ASTRONOMY  
FORUM  
& SPACE EXPO**



**THE WORLD'S LARGEST AND MOST  
SPECTACULAR ASTRONOMY & SPACE EXPO**

**April 20-21, 2024**



*Member and Non-Member  
Events  
2024 Speakers confirmed  
so far - Gerry Griffin -  
Apollo Flight Director  
Felix  
Schlang - Space news  
reporter. Host of What  
About It? -  
More Speakers to Be  
Announced*

**90,000 SF OF SHOWROOM FLOOR  
PLUS WORLD CLASS SPEAKERS, 2  
THEATERS, PRO/AM WORKSHOPS,  
PLANETARIUM SHOWS, SOLAR  
VIEWING, BEGINNERS CLASSES,  
HUGE RAFFLE, AMAZING DOOR  
PRIZES, KIDS ACTIVITIES AND  
MUCH MORE**



*Rockland Community College  
New York*

# SLAS EVENTS PAGE



Come to a  
Star Party!!

[www.slas.us](http://www.slas.us)



The Salt Lake Astronomical Society invites you to join us at a FREE public Star Party or Sun Party! Enjoy views of the Sun, Moon, Planets, Stars, Nebulae, and Galaxies through some of Utah's largest telescopes.

## 2024 Star & Sun Party Schedule & Locations

APR	20 <sup>th</sup>	SPOC*
APR	27 <sup>th</sup>	Sun Party- Winchester Park (6400 S. 1100 West)
MAY	11 <sup>th</sup>	SPOC*
MAY	17 <sup>th</sup>	SL Co. Library <b>Taylorville Branch</b> 4870 S. 2700 West, Taylorville, UT
MAY	18 <sup>th</sup>	SPOC*
MAY	25 <sup>th</sup>	Sun Party- Winchester Park (6400 S. 1100 West)
JUN	1 <sup>st</sup>	SPOC*
JUN	5-8 <sup>th</sup>	Bryce Canyon Astronomy Festival
JUN	14 <sup>th</sup>	SL Co. Library <b>South Jordan Branch</b> 10673 S. Redwood Rd., South Jordan, UT
JUN	15 <sup>th</sup>	SPOC*
JUN	22 <sup>nd</sup>	Sun Party- Winchester Park (6400 S. 1100 West)
JUN	29 <sup>th</sup>	SPOC*
JUL	12 <sup>th</sup>	SL Co. Library <b>Granite Branch</b> 3331 So. 500 East, South Salt Lake, UT
JUL	13 <sup>th</sup>	SPOC*
JUL	17-20 <sup>th</sup>	Astronomical League Convention- Kansas City
JUL	20 <sup>th</sup>	Sun Party- Winchester Park (6400 S. 1100 West)
JUL	27 <sup>th</sup>	SPOC*
AUG	9 <sup>th</sup>	SL Co. Library <b>Riverton Branch</b> 12877 So. 1830 W., Riverton, UT (accessible from Redwood Road is easier to find)
AUG	10 <sup>th</sup>	SPOC*
AUG	17 <sup>th</sup>	Sun Party- Winchester Park (6400 S. 1100 West) SPOC* Stansbury Days
AUG	24 <sup>th</sup>	SPOC*
SEP	7 <sup>th</sup>	SPOC*
SEP	13 <sup>th</sup>	SL Co. Library <b>Herriman Branch</b> 5380 W. Herriman Main St., Herriman, UT
SEP	14 <sup>th</sup>	SPOC*
SEP	21 <sup>st</sup>	Sun Party- Winchester Park (6400 S. 1100 West)
OCT	11 <sup>th</sup>	SL Co. Library <b>Holladay Branch</b> 2150 E. Murray-Holladay Rd., Holladay, UT
OCT	12 <sup>th</sup>	SPOC*
OCT	19 <sup>th</sup>	Sun Party- Winchester Park (6400 S. 1100 West)
OCT	26 <sup>th</sup>	SPOC* (final star party of the year)

\*Stansbury Park Observatory Complex

Star Parties run from Dusk until:  
10 PM in Apr, May, Sept, Oct  
11 PM in Jun, Jul, Aug,  
Sun Parties are from 9AM – Noon.

All Sun & Star Parties are Weather Permitting.  
See you under a clear Sky



## General Meeting Information

BOARD MEETINGS ARE FOR SLAS BOARD MEMBERS AND ARE OPEN TO ANY MEMBER OF SLAS TO ATTEND. PLEASE NOTE THAT ONLY BOARD MEMBERS MAY VOTE AT BOARD MEETINGS. BOARD MEETINGS TAKE PLACE ON THE 2ND WEDNESDAY OF EACH MONTH AT 7:30 PM LOCATED AT THE DENNY'S RESTAURANT ON 1701 WEST NORTH TEMPLE STREET SALT LAKE CITY, UTAH 84116 (WE MEET IN THE BACK MEETING ROOM)

GENERAL MEETINGS FOR SLAS MEMBERS TAKE PLACE ON THE 3RD WEDNESDAY OF EACH MONTH (WITH THE EXCEPTION OF DECEMBER WHEN THE SOLSTICE PARTY AT THE BEGINNING OF DECEMBER TAKES THE PLACE OF THE GENERAL MEETING ) AT 7:30 PM LOCATED AT ROOM TB104, RAMPTON TECHNOLOGY BUILDING, SALT LAKE COMMUNITY COLLEGE REDWOOD ROAD CAMPUS PARKING IS ACROSS THE STREET TO THE NORTH OF THE BUILDING IN PARKING LOT 'R'. GENERAL MEETINGS ARE OPEN TO THE PUBLIC.

- **Mar. 13**-Board Meeting
- **Mar. 20**-General Meeting
- **Apr. 10** - Board Meeting
- **Apr. 17**-General Meeting

See the above info for places and times for meetings and the webpage: [slas.us](http://slas.us) for more information.

**PLEASE NOTE:** Zoom is no longer available for these meetings unless the guest speaker is joining us virtually.



## Say Hello to Our New

Hi! Members!



**Jaedin Johnson**

**Carlos Soto**



At SLAS, we are observational astronomers who:

**\*Promote astronomy\***

**\*Encourage public education and interest\***

**\*Coordinate activities with professional research\***

## Featured Astronomical Object

NGC 6781- Planetary Nebula Or  
"The Little Helix Nebula"



“NGC 6781 is a barrel shaped planetary nebula and our perspective is straight down the middle along the length of the barrel straight at the progenitor (blue) white dwarf star that continues to light it up. The white dwarf and the nebula itself are the remains of a star with a mass roughly 2.5 times the sun. While NGC 6781 is a smaller target and not imaged as often as NGC7293 (The Helix Nebula), it appears somewhat similar in structure, and hence the name.” NGC 6781 is best viewed through an 8" to 10" telescope, but if you desire to see more detail and clarity, larger telescopes are key.

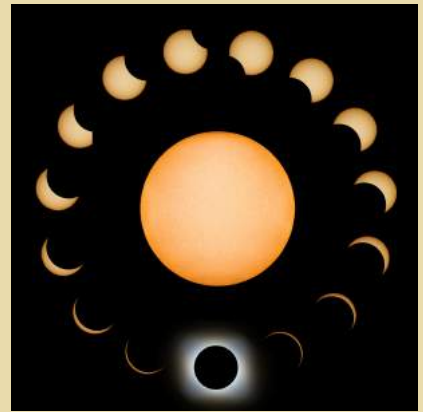
This planetary nebula sits in the constellation Aquila -The Eagle on the edge of the Milky Way arm.

“Despite its smaller size, 6781’s brightness reveals some inner complexity within the barrel shape – including “cometary” knots of nebulosity.” Source:

<https://www.astrobin.com/lh6go8/>



The path of the April 8th total solar eclipse across North America. Credit: Michael Zeiler



Eclipse Safety  
Scan Me



Or click the link  
below

<https://solarsystem.nasa.gov/eclipses/safety/>



## How to Safely View a Solar Eclipse

The Sun's UV radiation can permanently damage your eyes. Never look directly into the Sun, not even for a few seconds! To safely view a solar eclipse, you can either project or filter the Sun's rays.

### Method 1) Projecting the Sun's Light

A projector allows you to view the Sun without looking at it directly. It is easy to make using common household items.



### Method 2) Filtering the Sun's Light

If you prefer viewing the Sun directly, use eclipse glasses or other approved solar filters. Cracks or scratches can make filters unsafe to use, so always make sure that they are intact!



**WARNING:**  
Do not use these!



Never use the following materials as eye protection when viewing the Sun:

- Telescopes, binoculars, or cameras without specialized Sun filters.
- Sunglasses of any kind, even if you wear multiple pairs.
- Color film.
- Medical X-ray film.
- Smoked glass.
- Floppy disks.



TEXAS STAR PARTY

# TSP'S TOTAL SOLAR ECLIPSE AND STAR PARTY



**TOTALITY 4 MINUTES AND 23.5 SECONDS**  
**SPECIAL ECLIPSE EVENT**  
**APRIL 5TH TO 9TH, 2024**



**AFTERNOON & EVENING SPEAKERS**  
**FUN ACTIVITIES- ONSITE ACCOMMODATIONS- MEALS**  
**FREE T-SHIRTS & SOLAR GLASSES**  
**LOCATED 20 MINUTES SOUTHWEST OF HILLSBORO, TEXAS**

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To Book your Event Pass based on your selection of accommodation type.

Please click on the QR code if you want to make a purchase using your computer.

Or if you want to use your cell phone, open your cell phone camera app and point and capture the QR code on your cell phone. Then select [texasstarparty.org](https://texasstarparty.org) website page name which appears below the image of the QR code.



# 2023 & 2024 Eclipse Events

in  
**Kerrville, TX**

Join us for an unforgettable astronomical experience as we witness both an annular and total solar eclipse right here in the heart of Texas. Pack your RV and gear up for an adventure-filled weekend of boondock camping where nature and wonder collide!

Don't miss out on this rare celestial event combined with Texas hospitality. Reserve your spot today and prepare for an out-of-this-world adventure!

for more info call 830-367-4769

# Volunteers Still Needed for Astrocon 2025!



**ASTROCON 2025 will be held June 25-28, 2025, under the spectacularly dark skies of Bryce Canyon National Park in southern Utah.**

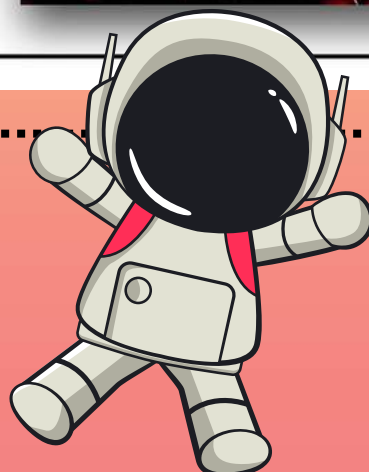
The venue will be at Ruby's Inn and Convention Center a few miles from the park entrance. A special area a few miles east of the convention center will be available for evening viewing plus astrophotography/digital imaging workshops.

The convention's goal is to teach how to enhance one's personal viewing experiences through workshops and evening viewing plus opportunities to learn astrophotographic skills. As we are still in the planning stage, we welcome your input as to how daytime and/or evening presentations and workshops can best achieve these goals. Ideas that our committee is considering include:

- Setting up your own personal observing program (including Astronomical League Observing Programs to consider)
- Observing tips including clothing to wear, how best to use your own eyes, equipment ideas
- Using star charts (digital and paper)
- Creation of observing lists for difference types of objects
- Understanding eyepiece selection
- Using filters for visual and photographic work
- Sketching workshop
- Observing log workshop – starting and keeping your own journal
- Astrophotography/Digital Imaging workshops (novice and advanced)

Please feel free to contact me if you wish to assist with a presentation and/or a workshop. We are starting our planning early, as we learned from ASTROCON 2017 at Casper Wyoming, held during the total solar eclipse, that advance planning is particularly important for this type of event. We look forward to hearing from you.

Lowell Lyon  
ASTROCON 2025 Chair  
801-699-7283  
[bolide@sisna.com](mailto:bolide@sisna.com)







# *Astronomical Events*

## *March and April 2024*

Source: [Sea and Sky](#)



### March

**March 8-10: First Messier Marathon Weekend**

**March 10: Daylight Saving Time begins at 2 AM. Move clocks ahead one hour**

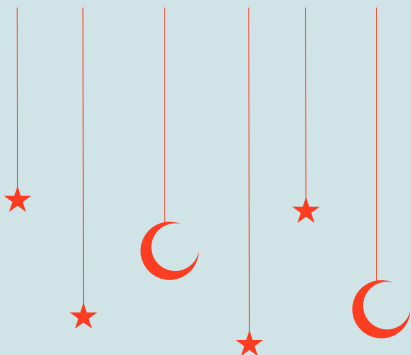
**March 10: New Moon**

**March 20: Vernal Equinox**

**March 24: Mercury at Greatest Eastern Elongation**

**March 25: Full Moon**

**March 25-26: Penumbral Lunar Eclipse**



### April

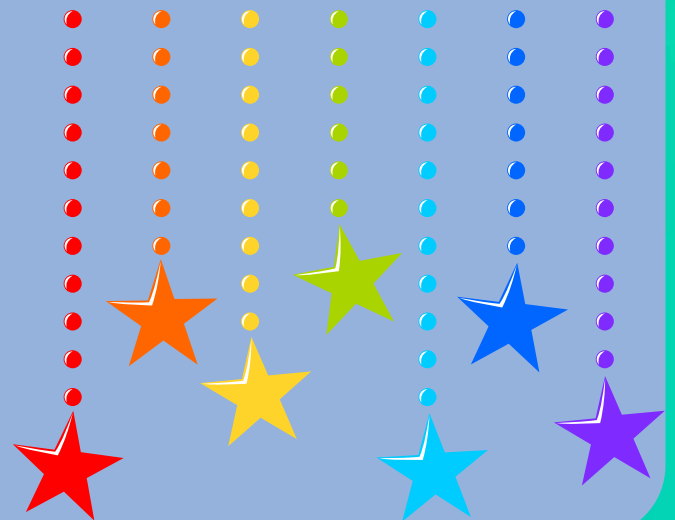
**April 6-8: Second Messier Marathon Weekend**

**April 8: New Moon**

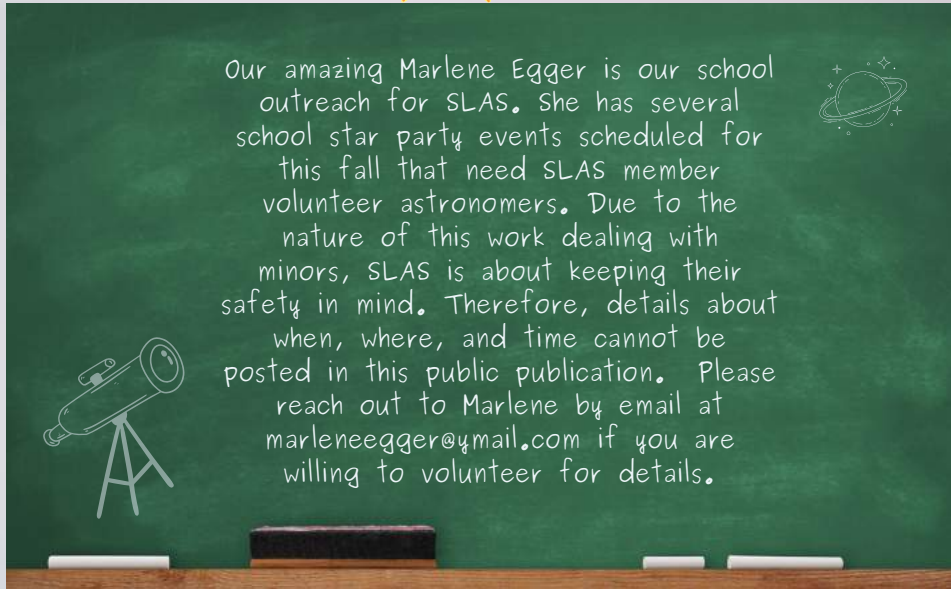
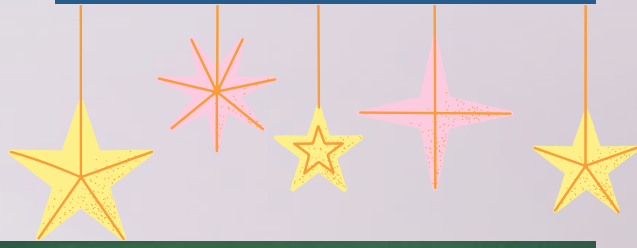
**April 8: Total Solar Eclipse (Partial for Utah)**

**April 22-23: Lyrids Meteor Shower**

**April 23: Full Moon**



# SLAS NEWS



## **SOLAR PARTY Volunteer Needed!**

With the passing of Nate Goodman, SLAS is in need of a Solar (Sun) Party coordinator Volunteer. This will need to be someone who can be responsible for announcing where and when the solar parties are and be able to attend the event. These Sun Parties only happen once a month, so it's not a huge job. If you'd like to volunteer for this, please let Don Abernathy know if you're interested!

**SLAS member and historian, Patrick Wiggins has discovered his 9th supernova. Patrick says, "I started looking for supernovae back in 2011 and this 9th find was found on my 2,354th night of searching." Congratulations!**



**SPOC WILL OPEN AGAIN IN APRIL 2024.  
PLEASE SEE THE SPOC STAR PARTY CALENDAR  
BROCHURE ON PAGE 10 OF THIS PUBLICATION.**

**SLAS has a new telescope!  
The Siegfried Jachmann Memorial Telescope  
(AKA "The Big Sig" ) is not ready for  
operation just yet, but it is getting closer. The  
mount and telescope are at SPOC and training  
on it will be announced shortly.**





# HELP!



**Need Some Help with Your  
Telescope? Get Friendly, Expert  
Help with  
SLAS Member, Max Byerly!**

**Telescope Repairs and Maintenance:**

Do you ever find yourself needing help with your telescope? Maybe something isn't working, right? Maybe you can't figure out how to get it properly collimated or aligned with the sky. Has it broken down and needs a fix? I'm here to help!

I'm Max and I've been helping people get back under the night sky for over a decade. I moved to SLC a few years ago, and have tried to be active when my work schedule lets me come to events and star parties.

I enjoy helping people with the night sky and their equipment. I know a lot from the basics all the way to imaging faint targets with a telescope. I'm quite experienced in particular with Meade, Celestron, iOptron, and Orion/Skywatcher equipment, but that doesn't mean I can't help if you have something outside of that. I've repaired and fixed many mounts cleaned many telescopes and mirrors, and regreased and tuned several Goto systems. Just know that when something happens or if you're not comfortable tackling something, reach out to me and let's see what I can do for you!

Contact: [maxbyerly@icloud.com](mailto:maxbyerly@icloud.com)



# Pssst! Need a Telescope?



Do you want to use a telescope, but don't have the space for one, or the money for one? There are a couple of options for borrowing a telescope. One is from our Salt Lake County Libraries and the other is if you join SLAS, you can borrow a telescope as part of membership benefits.



To reserve Telescopes, please call Customer Service 801.943.4636 or stop by your local branch and talk with a librarian.



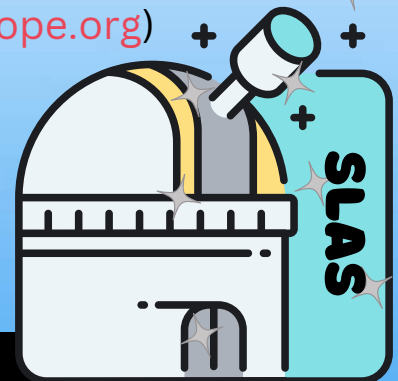
## Telescopes THE SALT LAKE COUNTY LIBRARY SYSTEM

The County Library is lending a limited number of Orion StarBlast Telescopes at each branch. The County Library's telescope lending program is made possible through a partnership with the Salt Lake Astronomical Society. Follow the safety rules and don't look at the sun! Enjoy this STEM experience.

- Telescopes are located at all libraries for check out, subject to availability
- Only 1 telescope per library card
- The Telescope and all peripheral materials (fanny pack, eyepiece, rubber eye guard, lens covers, view finder, books, head gear, brush pen, instructions, batteries, and base) must be returned together in the condition in which they were checked out and on the same day in which the Telescope is returned

To see all participating libraries in the telescope loaner program in Utah, click on this link: Utah ([librarytelescope.org](http://librarytelescope.org))

These are the telescopes available to borrow through SLAS. This program is for members only and can be obtained through [slasloanequipment@gmail.com](mailto:slasloanequipment@gmail.com)



- (4) 8" Dobsonian telescopes
- (2) 6" Dobsonian telescopes
- (4) C-8 telescopes
- (1) 4" Criterion SCT
- H-Alpha Solar Telescope, tripod, mount and misc. accessories.

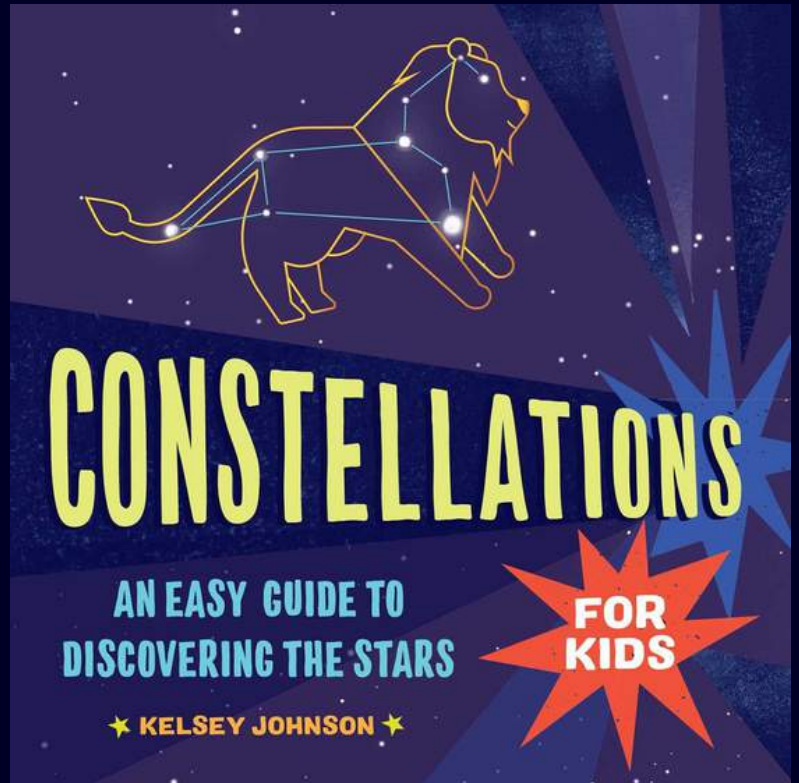


# Astronomy For Kids

With the April 2024 solar eclipse coming up, there will be a lot of activities already going on, so for this issue, this section will be a book suggestion to get children ready to get out and star gaze this summer!

“Over thousands of years, stargazers have noticed shapes in the stars, also called constellations. Different cultures have seen mythical animals and heroes within these constellations, and many travelers have used the stars as a guide for their journeys. *Constellations for Kids*—by astronomy professor Kelsey Johnson—shows you how to read the night sky and discover more than 25 unique constellations as you learn about outer space and the solar world.”

From Canis Major to Cassiopeia, each constellation in this astronomy book for kids includes easy-to-read sky maps and step-by-step instructions for identifying it in the night sky. You'll also learn how to use bright stars as guides to show you where to find each constellation!



Find at

Amazon:

[https://www.amazon.com/Constellations-Kids-Stories-Ann-Pearson-ebook/dp/B09XF9P5QN/ref=sr\\_1\\_7?crid=26JFLP8QYC136&dib=eyJ2ljojMSJ9.UzdRiDn1oNG6sFrbI\\_sv3tRGIaDesA31QGVS76h80EG6TeBF52X\\_gbJ1IPTPratTrrhru8ELG3oOL34A0v2RtRNm8K6\\_53THA5NaCDx573aHknNhksylf3YmnY\\_mst89NNPFdzzqOsFBrY7gUukwiOpFDDya3E8X4GAvcYq-ymq2gThduv\\_siM-1bKUWCMj13JgE4jSSaIGpKzirMV1\\_e1nsSpc09mXqvhy57CpxQ.O0fqLskAZkYcGsSXry2FnezLiUhCPkIiAmMBjXEeHc&dib\\_tag=se&keywords=Astronomy+for+kids&qid=1709368587&s=digital-text&prefix=astronomy+for+kids%2Cdigital-text%2C115&sr=1-7](https://www.amazon.com/Constellations-Kids-Stories-Ann-Pearson-ebook/dp/B09XF9P5QN/ref=sr_1_7?crid=26JFLP8QYC136&dib=eyJ2ljojMSJ9.UzdRiDn1oNG6sFrbI_sv3tRGIaDesA31QGVS76h80EG6TeBF52X_gbJ1IPTPratTrrhru8ELG3oOL34A0v2RtRNm8K6_53THA5NaCDx573aHknNhksylf3YmnY_mst89NNPFdzzqOsFBrY7gUukwiOpFDDya3E8X4GAvcYq-ymq2gThduv_siM-1bKUWCMj13JgE4jSSaIGpKzirMV1_e1nsSpc09mXqvhy57CpxQ.O0fqLskAZkYcGsSXry2FnezLiUhCPkIiAmMBjXEeHc&dib_tag=se&keywords=Astronomy+for+kids&qid=1709368587&s=digital-text&prefix=astronomy+for+kids%2Cdigital-text%2C115&sr=1-7)

# BECOME A CITIZEN SCIENTIST!

**SciStarter: Science we can do together:** ( Sign up at: <https://scistarter.org/>): "SciStarter is a globally acclaimed, online citizen science hub where more than 3,000 projects, searchable by location, topic, age level, etc, have been registered by individual project leaders or imported through partnerships with federal governments, NGOs, and universities. As a research affiliate of NCSU and ASU, and a popular citizen science portal, SciStarter hosts an active community of close to 100,000 registered citizen scientists and millions of additional site visitors. Hundreds of citizen science projects use SciStarter's NSF-supported APIs to help citizen scientists earn credit for their participation in their SciStarter dashboard, across projects and platforms. These features enable SciStarter's partners (libraries, schools, museums, Girl Scouts, and more) to catalyze customized citizen science pathways and track and support the progress of their communities through SciStarter. SciStarter also supports researchers in managing projects, including best practices for engaging participant partners." Citizen Scientists are needed for projects in astronomy research.

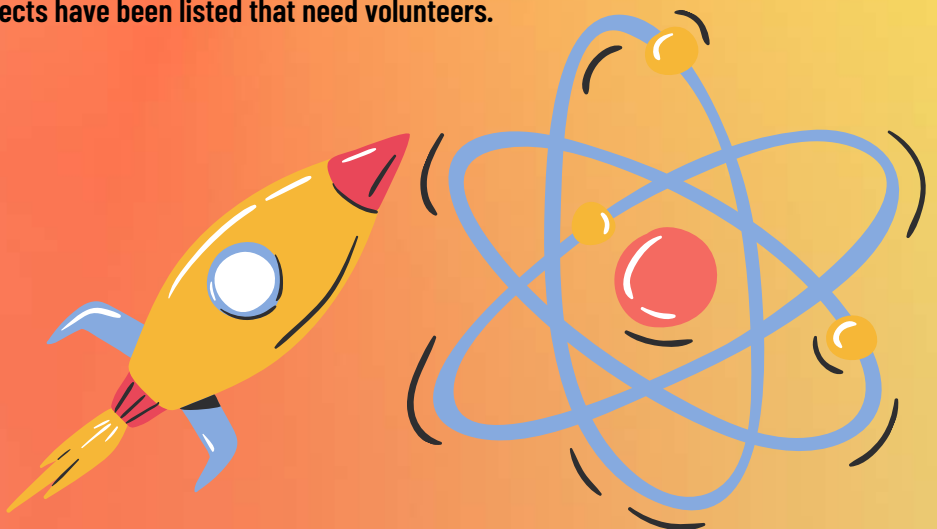
**Zooniverse: People Powered Research:** (Sign up at: <https://www.zooniverse.org/>): "The Zooniverse is the world's largest and most popular platform for people-powered research. This research is made possible by volunteers – more than a million people around the world who come together to assist professional researchers. Our goal is to enable research that would not be possible, or practical, otherwise. Zooniverse research results in new discoveries, datasets useful to the wider research community, and many publications. You don't need any specialized background, training, or expertise to participate in any Zooniverse projects. We make it easy for anyone to contribute to real academic research, on their own computer, at their own convenience." Citizen Scientists are needed for projects in astronomy research.

## **National Geographic: Citizen Science Opportunities for All Ages:**

(Sign up at: <https://education.nationalgeographic.org/resource/citizen-science-projects>): Search space, help NASA classify galaxies, measure night sky brightness, find age-appropriate projects, and teacher resources.

## **CitizenScience.gov: Helping Federal Agencies Accelerate Innovation Through Public Participation:**

(Sign up at [citizenscience.gov](https://citizenscience.gov/)): "CitizenScience.gov is an official government website designed to accelerate the use of crowdsourcing and citizen science across the U.S. government. The site provides a portal to three key components: a catalog of federally supported citizen science projects, a toolkit to assist federal practitioners with designing and maintaining their projects, and a gateway to a community of hundreds of citizen science practitioners and coordinators across government as called for in the Crowdsourcing and Citizen Science Act of 2016 (15 USC 3724). Through citizen science and crowdsourcing, the federal government and nongovernmental organizations can engage the American public in addressing societal needs and accelerating science, technology, and innovation." Many NASA projects have been listed that need volunteers.



# SLAS Meeting Notes

SLAS January Board Meeting Notes



**COMING  
SOON**

# SLAS Meeting Notes

## SLAS General Meeting – January 17, 2024

33 Members in attendance.

President, Don Abernathy, called the meeting to order at 7:30PM.

Don welcomes everyone to the first general meeting for the new year. He welcomed our new members. They introduced themselves, and Don thanked them.

He introduced Lowell Lyon, a former SLAS president. He will be speaking on the AL Conventions and ASTROCON 2025. SLAS is hosting the 2025 convention at Bryce Canyon.

Lowell introduced himself as a charter member of SLAS. He started his presentation with what the AL is, and what they offer to their members. He recapped the last few years of where ALCon has been held.

Lowell discussed AL Live on Facebook and the various observing awards programs.

He also gave a summary of what will come for ASTROCON 2025 which is to be held June 25-28, 2025.

Marlene Egger noted that this is in conjunction with Bryce Canyon's Astronomy Festival.

Don shared that he enjoys going to conventions because he likes to check out the new technology typically introduced at these events.

Don went over the summary of the board meeting from the previous week.

He began with the 2024 budget presentation. He explained the changes that were made.

24 members were in favor of passing the budget.

Don explained to the membership that dues will increase to \$25 beginning on February 1st.

SPOC Director, Jim Keane, explained what the SPOC fee is really in place for. He and Don encouraged everyone to please use the facility.

The dues increase passed 23 to 1.

The SLAS Events Calendar was passed unanimously.

We will remove April 12th Library Star Party due to weather and the proximity to the total solar eclipse.

Don asked that if anyone is interested in being the sun party coordinator to please contact him.

Max Byerly asked if we could have general meetings prior to the SPOC star parties.  
Don will discuss this with the board.

Advanced training will be at Dee's following the meeting.

Don concludes the meeting.

The meeting adjourned at 8:37 PM.

Minutes submitted by:

Krista Lemoine, Secretary/Treasurer of SLAS.



# SLAS Meeting Notes

## SLAS Board Meeting Minutes

February 14, 2024, at 7:00 p.m.

Denny's Restaurant, 1701 W. North Temple St.

Board Members present: Don Abernathy, Aleta Cox, Marlene Egger, Trevor Hebditch. We excused Krista Lemoine who is ill and hope for her speedy recovery. Other members present: Joan Carman, Alpine Stringham, Patrick Wiggins, Fred Cox, and Lowell Lyon.

President Don Abernathy called the meeting to order at 7:00 p.m. He passed out an agenda to all attendees beforehand.

Beginning with Lowell Lyon, Event Coordinator for the Astronomical League's 2025 Convention, Don asked him to talk about the upcoming AstroCon at Bryce Canyon in 2025. The conference will be held June 25-28, 2025, under the spectacular skies of Bryce Canyon. Lowell mentioned that Sky & Telescope will be in attendance with a booth as well as other vendors. Lowell then explained about the workshops and that each would be presented twice during the conference.

There will be workshops on the following:

Astrophotography/Digital Imaging: both for the novice and advanced.

Charts/Books/Observing Lists: how to use star charts and reference books and star atlases. Also creating observing lists for various types of objects.

Observing/Eyepieces/Filters Workshop: using filters for visual & photo work, how best to use your own eyes for observing, what to wear, plus equipment ideas.

Observing Program/Log Workshop: Setting up your own personal observing program including Astronomical League Observing Programs to consider. Starting and keeping your own journal.

Sketching Workshop: Hands-on experience with drawing what you see at the eyepiece. Each night east of Ruby's Inn will be a session for Astrophotography and Digital Imaging at a private viewing area. A Private Star Party for convention attendees will be at Rainbow Point. These run concurrently from 9:30 p.m. to 3:00 a.m. each evening.

Contact Lowell Lyon at email: [bolide@sisna.com](mailto:bolide@sisna.com) or phone: 801-699-7283 for more information or if you wish to volunteer to help with workshops or any other aspect of the convention. WE NEED VOLUNTEERS. Lowell emphasized that our club has no financial obligation for this. If the convention loses money (and they never have), we are not responsible. The League will absorb those costs. However, if we have club members helping with the convention, we can share in the profits. The League shares a percentage of the profits with us. In the past, this has been in the thousands of dollars. The more SLAS members helping, the bigger our percentage will be, and the bigger the check we receive.

Don then asked Joan Carman if there was anything else to report on the Library Loaner Telescope program. Joan is going to contact Tooele Libraries about the program in the spring. She had nothing else at this time.

Patrick was asking about some items on the website that hadn't been updated in quite a while. It was also mentioned that Patrick had discovered another (his ninth) Supernova on Jan 29, 2024.

# SLAS Meeting Notes

Jim Keane, Observatory Director said he has paid for the SIG scope, and it is at SPOC. We will get him reimbursed. The scope still needs some work done to make it safe for general use, but he and Luke Moses are working on their list of items.

Jim is going to contact those current telescope trainers and see if they are still willing to continue in that position. Then he will focus on getting more members trained on each of the telescopes especially the Ealing and the Grim.

Jim will be scheduling a spring cleaning at SPOC a little later as the weather warms up. There are some items needing attention around the observatory, and he will ask for volunteers to help him with these.

Jim will be calling a SPOC Advisory committee meeting after he finds out who is still on the committee. He may need to recruit new members as some of the appointments have expired. He said the meeting could possibly be a Zoom call instead of physical meeting.

Don announced the February General Meeting speaker: Keryn Ross, Adjunct Professor, BYU Geological Sciences. She will be speaking on "Sizing Up Lunar Craters". Don says he's still looking for a speaker for the March meeting. Any ideas- get in touch with him.

He does have a couple of calls out, but no responses yet. April's meeting will feature Professor Jonathan Barnes from Salt Lake Community College. His topic is "The Sounds of Space".

Patrick sent an email earlier regarding PR and getting our star party information out to the public. There is a columnist for the Tribune interested in listing our star parties in his column. He has done it in the past and is interested in doing it again. Aleta will take the responsibility of getting something to him each month. We will also be announcing on social media about our events, so stay tuned.

With Krista ill this evening, we could not reimburse Jim Keane for his expenditures on the SIG scope, and website expenses, since Krista has the check book. Don asked for ideas to offset this problem. Patrick mentioned having a club credit card. Trevor mentioned a pre-paid credit card with a pre-determined maximum amount. A debit card was mentioned also. Jim said that some people don't accept credit/debit cards for payment. Jim mentioned having two check books as long as they are reconciled with the books each month. No definite decision was made to solve this yet.

Don asked Board Member Marlene Eggers about School and Special Star Parties. We have had several requests already. Marlene has had a series of communications with a youth group from the Church of Jesus Christ of Latter Day Saints in Herriman that wants to have a star party at SPOC on a weekday (originally a Wednesday in March, but they now understand that isn't possible.) She is concerned that a weekday star party at SPOC without a significant reason sets a bad precedent, as weekdays are usually reserved for our members. She is exploring other possibilities with this group. Camp Hope in Kamas wants to have telescopes for an evening of star gazing. More info about this is to come later. Marlene said she has declined a couple of requests because they wanted events during the eclipse in April. Several schools have requested star parties for this year.

Check the online Events Calendar for School Star Parties but LOG IN first to see them. As a protection to the children, we don't make them public. Only members who log in to the site can see them.

Don then turned some time to Board Member Trevor Hebditch. Trevor wants to propose an Education Fund/Scholarship Fund to pay for one year's membership to a deserving

# SLAS Meeting Notes

person interested in Astronomy who cannot afford join the club otherwise. He passed out an outline of his plan to put this in motion. His outline contains some basic rules, how the fund would begin getting money- Trevor will put up \$500.00 as an initial amount, and then seed the fund every 6 months another \$500.00. Other members would also be able to contribute to the fund if desired. Marlene made a motion to approve in principle the creation of this fund, with a subcommittee to work out details and the exact rules for qualification. They will take into consideration all of Trevor's suggestions as a beginning point. The motion was seconded by Aleta and the board members voted. The motion passed unanimously by the four board members in attendance. Marlene suggested two committee members- Krista Lemoine and Patrick Wiggins. Patrick declined.

Don mentioned a couple of additional items needing attention. The Civil Air Patrol Symposium is coming up on March 9, 2024. They would like a presentation. Don said he would take care of it. Also, with the passing of Nate Goodman, we are in need of a Solar (Sun) Party coordinator. Someone who will be responsible for announcing where and when, and then agree to attend the event. These Sun Parties only happen once a month, so it's not a huge job. If you'd like to volunteer for this, please let Don Abernathy know you're interested!

Tony Sarra asked for a minute. He has been working with Paul Ricketts at the U of U for remote imaging sessions with their telescope on Frisco Peak. Their previous sessions have been cancelled due to weather. The next session for remote imaging will be Friday, March 8, 2024. For more information contact Tony. Tony also said that progress is being made on the website update. James has been working hard. Jim Keane will coordinate with Krista on the additional cost reimbursement to him. He has paid James for the work done to date.

Patrick raised the question of having/needing an AED defibrillator unit out at SPOC for emergencies. It would be kept in the control room (room between the Ealing and Grim scopes) so that the general public would not have access to it. Questions were asked about cost, maintenance, shelf life, etc. Patrick will investigate further and get back to us at the next board meeting.

Lowell Lyon has a friend in Texas that still has 40 spots left in their area for RVs or Campers to view the total eclipse in April. There are no hookups at this location. Aleta shared his flyer on the SLAS Talk page on Facebook with the contact information. She will post it again for anyone needing the information.

Meeting Adjourned at 8:00 p.m.

Submitted by Aleta L. Cox, VP

# SLAS Meeting Notes

## SLAS General Meeting Minutes

February 21, 2004

Held in Room TB104, Rampton Technology Bldg.

Salt Lake Community College, Taylorsville Campus

approximately 34 people attending.

President Don Abernathy called the meeting to order at 7:30 p.m. He extended a welcome to all in attendance. Don thanked our hosts this evening, Professor Jonathan Barnes, and Dr. Sam Jones for all their work in hosting us. He then asked if anyone was there for the first time. Six people raised their hands and introduced themselves. Don extended a warm welcome to them.

Don then introduced tonight's speaker, Keryn Ross, an Adjunct Professor and K-12 Outreach Coordinator at BYU's Dept. of Geological Sciences. She studied geology and volcanology at BYU, receiving her master's degree in 2015. She loves studying gemstones, volcanoes, and the moon. Geology of the Planets is one of her favorite classes.

to teach. Her topic tonight is titled Sizing up Lunar Craters. She covered how to tell how big a crater on the moon is when looking through your telescope. She talked about how the moon can give insights into our solar system creation. It's easily visible from all over the world, so it is easy to study. Then she got into the craters and talked about four different aspects of craters- Morphology, Terrains, Craters, and Age modifications. Keryn had a wonderful PowerPoint presentation illustrating everything she spoke about, including photos of various craters and Maria of the moon to illustrate her lecture. Morphology focuses on the features and shapes related to the thing that impacted the moon causing the crater. By understanding the shape, we can make determinations on size and age.

Then she talked about Terrains. There are two types. Highlands and lowlands. The lowlands are the dark areas. The highlands are rich in an aluminum-rich feldspar called plagioclase. The maria are the lowlands and have been covered by huge lava flows. The far side of the moon is mostly highlands. The moon is tidally locked with earth and so we see only one side. Dr. Ross says this is fairly common for natural satellites and them planet.

Next came Craters. She spoke about how the crater is formed from the impact (contact, compression, evacuation, and modification) helps the formation of the crater. She compared it to dropping a marble into a dish of milk and watching the rings and splashes following it. Craters work in a very similar manner, a meteorite crashes at high speed, compresses the landing spot material, and then is forced back up and spewed out around the hole it left. Sometimes the heat involved will melt the rock and sediment fusing it into a glass-like substance called tektite. The size and shape of the crater is determined by the meteorite crashing into the surface. Nearly all craters are round and bowl-shaped, regardless of the approach angle of the object impacting the surface, unless it is a really low angle of approach- less than 20 degrees, then it will make an elongated shape. This is the most common surface in solar system objects. As craters get bigger (from bigger objects crashing) their steep walls show a failure by slumping (landslides) creating a flat-bottomed crater. Even larger craters will have terracing around the edges and a central peak is created from prior slides.

Then she talked about Modifications of craters- frequently caused by large lava fills flowing in and covering up things below, terracing, as mentioned above, impacts within impacts, and multiple rings around outside. These are all indicators used in determining age of craters (which ones are older than others), and other factors. She then gave us a "Cheat Sheet" for determining sizes of craters.

# SLAS Meeting Notes

if the crater is:

A Simple crater < 20 km diameter

Shows Terracing >20 km in diameter.

Has Central Peaks >50 km in diameter?

Has Peak Rings > 200 km in diameter.

Shows Multiple Rings > 300 km in diameter.

She ended the presentation and opened up for questions. There were several people asking questions for approx. 10-15 minutes. She thanked everyone and all applauded. Don thanked her for the interesting presentation about Lunar Craters and asked for one more round of applause.

Don then covered briefly some details from the Board Meeting held the week before. See the Board Meeting Minutes for February 14th for full information. He mentioned that Lowell Lyon addressed the Board. Lowell is encouraging SLAS members to get involved in helping with the Astronomical League's AstroCon 2025 to take place in Bryce Canyon NP next year. Participating organizations receive a monetary percentage of the profits from the event. The percentage is based on the number of members helping with the conference (the more we have helping, the more we will earn). The League has always made a profit on the conferences if that is any incentive to get involved. Another plus is that you get to rub shoulders with some of the major names in the astronomy field. The next planning meeting for this is March 26, 2024, at 6:00 p.m. It will be held at the Murray Library.

Don recognized Patrick Wiggins, our Historian, as having added yet another Supernova to his list of discoveries. This is the 9th supernova he has discovered. It occurred on January 29, 2024. Congratulations Patrick!!

SPOC will have a new telescope added to the four main ones permanently there- The 'Big Sig' is named in memory of Siegfried Jachman, a long-time SLAS member. Jim Keane, The Observatory Director, along with help from Luke Moses has been busy working on the mount for the large refractor. They still have some things to finish before 'first light'. Stay tuned for the opening date for SPOC to train and refresh telescope operators. Jim says he will open as soon as the weather lets us open up.

We need a new Sun Party Coordinator. Someone to be in charge of our sun parties once a month on full moon weekends. We will be holding them at Winchester Park (same as last year) in Murray. If interested, contact Don or a member of the Board.

Don announced Advanced Training at the Dee's Restaurant following the meeting and adjourned at 8:44 p.m.

Respectfully submitted by Aleta L. Cox, VP (substitute)