NOVA

THE OFFICIAL PUBLICATION OF THE SALT LAKE ASTRONOMICAL SOCIETY

HOME OF SALT LAKE CITY, UTAH'S OBSERVATIONAL ASTRONOMERS AND ASTROPHOTOGRAPHERS

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SLAS

SALT LAKE ASTRONOMICAL SOCIETY

SLASBROCHURE.pdf

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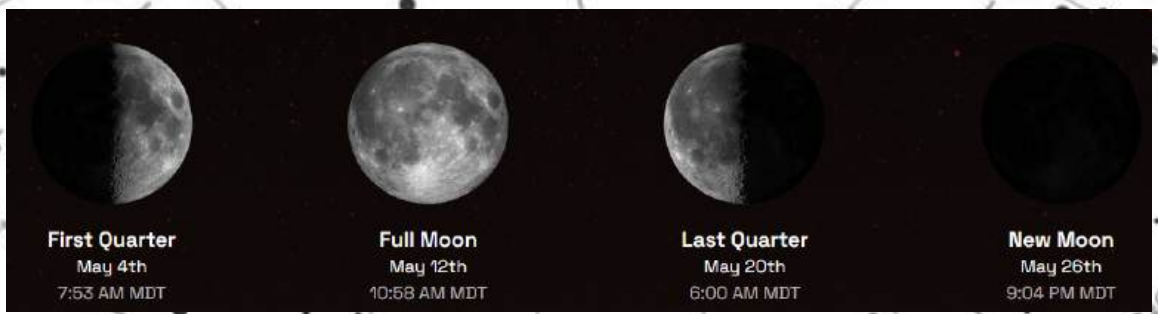
Utah

MAY 2025



JUNE 2025

SLAS President Message

Trevor Hebditch

We're now stepping into one of the most exciting times of the year—public star party and outreach season, running strong through the end of October! This is a fantastic opportunity for the public to visit the Stansbury Park Observatory Complex (SPOC), attend library star parties, solar observing events, and a variety of public and private gatherings. You'll find the full calendar in this newsletter and on our website.

We're also exploring new and creative ways to expand our outreach efforts, so if you have ideas, we'd love to hear them!

I want to sincerely thank everyone who gives their time, energy, and passion to make these events happen. Whether you're operating a telescope, helping visitors, or just showing up to support the experience—you make all the difference. And if you haven't yet joined in, now is a perfect time! You can volunteer as an assistant, take training to become a telescope operator, or simply bring your own gear and share your enthusiasm.

It's also a great chance to connect with other members, see what equipment they use, and get tips on your own setup. That's how I got started—and it made a huge difference in helping me understand what I needed and how to use it.

This year's general meeting lineup is also something to look forward to, with a fantastic roster of speakers. You can attend live on Zoom or catch the recordings on YouTube, but I really encourage everyone to come in person if you can. The camaraderie, connection, and energy of being there is something special—and your presence supports both our speakers and our society.

In the short time I've had the honor of serving as your president, I've been truly inspired by the dedication and spirit of this community. Thank you for making this society such a vibrant and welcoming place.

Here's to clear skies and great nights ahead—

Happy observing!

SLAS OFFICERS

SLAS Board of Directors

President: Trevor Hebditch

Vice President: Jenette Scott

Secretary/Treasurer: Rachel Henderson

Board Members at Large: Hayden Wilde *and Max Byerly*

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

NASA Night Sky Co-Ambassador: Jenette Scott

IDA - Utah Chapter Advocate: Jenette Scott

Nova Newsletter Editor: *Jenette Scott*

Observatory Director: *Jim Keane*

Private Star Party Coordinator: *Don Colton*

Solar Party Coordinator: *Don Abernathy*

Webmaster: *Ken Warner*

ZAP Grant Writer: *Jim Keane*

SPOC Advisory Committee

Chair: *Jim Keane*

Members: Trevor Hebditch, *Bob Moore, Patrick Wiggins, Jim Keane, John Drabik, Leslie Fowler, Bill Kennedy.*

Members As Obser. Dir. Emeritus: Rodger Fry.

SPOC Telescope Instruction Coordinators

Bogdan Refractor: *Marlene Egger* **Ealing**: *Jim Keane* **Grim**: *Rodger Fry* **Clements**: *Leslie Fowler*

Click Here To Contact Us

SLAS EVENTS PAGE

star party and sun party

Come to a
Star Party!!
www.slas.us

SLAS
SALT LAKE ASTRONOMICAL SOCIETY

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.

2025 Star & Sun Party Schedule & Locations

APR	4	SL Co. Library Branch **Sandy Library** 10100 S. Petunia Way (1405 East) Sandy, UT
APR	5	SPOC*
APR	12	Sun Party- Winchester Park (6400 S. 1100 West)
APR	19	SPOC*
MAY	2	SL Co. Library Branch **Taylorsville Library** 4870 S. 2700 West, Taylorsville, UT
MAY	3	SPOC*
MAY	10	Sun Party- Winchester Park (6400 S. 1100 West)
MAY	17	SPOC*
MAY	30	SL Co. Library Branch **Magna Library** 2675 S. 8950 West, Magna, UT
MAY	31	SPOC*
JUN	14	Sun Party- Winchester Park (6400 S. 1100 West)
JUN	21	SPOC*
JUN	25-28	Bryce Canyon Astronomy Festival, also Astron. League ASTROCON 2025 @ Bryce Canyon N. P.
JUL	12	Sun Party- Winchester Park (6400 S. 1100 West)
JUL	19	SPOC*
AUG	1	SL Co. Library Branch **Herriman Library** 5380 W. Main Street, Herriman, UT
AUG	2	SPOC*
AUG	9	Sun Party- Winchester Park (6400 S. 1100 West)
AUG	16	SPOC* Stansbury Days
AUG	29	SL Co. Library Branch **Holladay Library** 2150 E. Murray-Holladay Blvd., Holladay, UT
AUG	30	SPOC*
SEP	6	Sun Party- Winchester Park (6400 S. 1100 West)
SEP	13	SPOC*
SEP	18-20	Great Basin Astronomy Fest, and Heritage Star Festival @ Capitol Reef N.P.
SEP	26	SL Co. Library Branch **Granite Library** 3331 S. 500 East, South Salt Lake City, UT
SEP	27	SPOC*
OCT	4	Sun Party- Winchester Park (6400 S. 1100 West)
OCT	11	SPOC*
OCT	25	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 7:00 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 (Except for 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.

- May 14 -Board Meeting
- Mar 21 -General Meeting
- Jun 11 -Board Meeting
- Jun 18 -General Meeting

Please read the information above for the place and time of meetings and the webpage slas.us.

LAST CHANCE

Regstration Ends MAY 31, 2025!!!

ASTROCON 2025

BRYCE CANYON NATIONAL PARK

June 25 - June 28, 2025, Ruby's Inn, Bryce Canyon City, Utah

26 South Main Street • www.rubysinn.com

Sponsored by the MARS Region of the Astronomical League

This year, we will be under the stars for our conference!

- The Astronomical League is pleased to announce that **ASTROCON 2025** will be held during the new moon June 25-28 2025, at **Ruby's Inn**, near the entrance to **Bryce Canyon National Park**. Along with talks and workshops given during the day, nightly dark-sky observing will be offered at **Rainbow Point**.

- Bryce Canyon National Park features some of the darkest skies in the United States. Naturally, the National Park Service will hold a nightly public star gaze across the street from the **Bryce Canyon Visitor's Center** for both park visitors and ASTROCON attendees. **Ruby's Inn** is family-oriented with many options for fun and adventures. The area is full of possibilities.

- **Ebenezer's Barn and Grill** will host the **Star-B-Que** Friday at Noon to 2:00 PM and the **Gala Banquet** Saturday night from 5:00 PM to 8:00 PM. A room and/or RV Park/ tent camping site reservation link will be provided via email after registration to the conference has been confirmed. Lodging is available at a reduced rate, and will fill up fast.

- **Speakers and Workshops** will utilize the lecture hall at **Ruby's Inn** and **Ebenezer's Barn and Grill**.

- Reserved rooms with the ASTROCON rates are available the nights of June 24th through the 28th. This also includes the RV Park and Campground. If you want to come earlier or stay later, you will be charged the normal rate for those extra nights.

- Enjoy a **vacation extravaganza** to other National Parks and National Monuments within a days drive.

- Many activities available: hiking, mountain biking, horseback riding, guided ATV tours, and scenic flights.

- **Featured Workshops:**

Astrophotography / Digital Imaging - Novice
Astrophotography / Digital Imaging - Advanced
Observing: Personal Program / Journal
Observing: Tips & Ideas / Eyepieces / Filters
Observing: Charts / Books / Observing Lists
Sketching

Scan to register!

www.astrocon2025.org

2025 ASTROCON BRYCE CANYON-UTAH
DARK SKIES ROCK!!!

2025 Celestial Calendar

CELESTRON

January

SUN	MON	TUES	WED	THUR	FRI	SAT
			01	02		
05	06	07	08	09		11
12				16	17	
19	20	21	22	23	24	25
26	27	28				

February

SUN	MON	TUES	WED	THUR	FRI	SAT
02	03	04	05		07	08
	10	11		13	14	15
	17	18	19	20	21	22
23	24	25	26	27		

March

SUN	MON	TUES	WED	THUR	FRI	SAT
02	03	04		06	07	
09	10	11	12	13		15
16	17	18	19		21	22
	24	25	26	27	28	
30	31					

April

SUN	MON	TUES	WED	THUR	FRI	SAT
				03	04	
06	07	08	09	10		12
	14	15	16	17	18	19
20			23		25	26
		29				

May

SUN	MON	TUES	WED	THUR	FRI	SAT
				01	02	
04			07	08	09	10
11		13	14	15	16	17
18	19	20	21			24
25	26		28	29	30	

June

SUN	MON	TUES	WED	THUR	FRI	SAT
	02	03	04	05	06	07
08	09	10		12	13	14
15	16	17		19	20	
	23	24		26	27	28
	30					

July

SUN	MON	TUES	WED	THUR	FRI	SAT
		01	02	03	04	05
06	07	08	09		11	12
13	14	15		17	18	19
	21	22	23		25	26
27		29	30	31		

August

SUN	MON	TUES	WED	THUR	FRI	SAT
					01	02
03	04	05	06	07	08	
10			13	14	15	
17	18		20	21	22	
24	25	26	27	28	29	30

September

SUN	MON	TUES	WED	THUR	FRI	SAT
	01	02	03	04	05	06
		09	10	11		13
14	15		17	18	19	
			24	25	26	27
28	29	30				

October

SUN	MON	TUES	WED	THUR	FRI	SAT
			01	02	03	04
		07	08		10	11
12		14	15	16	17	18
19	20		22	23	24	25
26	27	28	29	30	31	

November

SUN	MON	TUES	WED	THUR	FRI	SAT
						01
	03	04			07	08
	10	11		13	14	15
16		18	19			22
23	24	25	26	27	28	
30						

December

SUN	MON	TUES	WED	THUR	FRI	SAT
	01	02			05	06
	08	09	10	11	12	
14	15	16	17	18		20
		23	24	25		27
28	29	30				

Icon Key

- New Moon
- Full Moon
- Supermoon
- Mercury Greatest Elongation
- Venus Greatest Elongation
- Mars
- Saturn Opposition
- Jupiter Opposition
- Neptune Opposition
- Uranus Opposition
- Pleiades Cluster
- Solar Maximum

Coordinated Universal Time (UTC)

Lunar Eclipses

Mar 13 Total Lunar Eclipse
(visible from Americas, Antarctica, Alaska, Russia and Africa)

Sep 07 Total Lunar Eclipse
(visible from Americas, Antarctica, Alaska, Russia and Africa)

Partial Solar Eclipses

Mar 29 Partial Solar Eclipse
(visible from the Americas, western Russia, Europe and Africa)

Sep 21 Partial Solar Eclipse
(visible from Antarctica and Oceania)

Saturn's Plane Crossing

Mar 23 - April 11
Saturn's rings cross plane on March 23, but the planet becomes visible in the morning sky by April 11.

Lunar Occultation

Jan 13 Mars
Jun 29 Mars

Meteor Showers

Jan 03-04	Quadrantids
Apr 22-23	Lyrids
May 06-07	Eta Aquarids
Jul 28-29	Delta Aquarids
Aug 12-13	Perseids
Oct 08-09	Draconids
Oct 21-22	Orionids
Nov 12-13	Taurids
Nov 17-18	Leonids
Dec 13-14	Geminids
Dec 21-22	Ursids

Equinoxes & Solstices

Mar 20	March Equinox
Jun 21	June Solstice
Sep 22	September Equinox
Dec 21	December Solstice

Conjunctions

Jan 03	Venus and Moon
Jan 04	Saturn and Moon
Jan 10	M45 and Moon
Jan 13	Mars and Moon
Jan 14	M44 and Moon
Jan 18	Venus and Saturn
Jan 31	Saturn and Moon
Feb 01	Venus and Moon
Feb 06	M45 and Moon
Feb 06	Jupiter and Moon
Feb 09	Mars and Moon
Mar 01	Venus and Moon
Mar 05	M45 and Moon
Mar 08	Mars and Moon
Apr 01	M45 and Moon
Apr 02	Jupiter and Moon
Apr 05	Mars and Moon
Apr 24	Venus, Saturn and Moon
Apr 28	Venus and Saturn
Apr 30	Jupiter and Moon
May 03	Mars and Moon
May 05	M44 and Mars
May 22	Saturn and Moon
May 23	Venus and Moon
Jun 01	Mars and Moon
Jun 18	Saturn and Moon
Jun 22	Venus and Moon
Jun 29	Mars and Moon
Jul 16	Saturn, Pluto and Moon
Jul 20	M45 and Moon
Jul 28	Mars and Moon
Aug 11	Venus and Jupiter
Aug 12	Saturn and Moon
Aug 16	M45 and Moon
Aug 31	M44 and Venus
Sep 08	Saturn, Neptune and Moon
Sep 12	M45 and Moon
Sep 16	Jupiter and Moon
Oct 05	Saturn and Moon
Oct 09	M45 and Moon
Oct 13	Jupiter and Moon
Nov 02	Saturn and Moon
Nov 06	M45 and Moon
Nov 09	Jupiter and Moon
Nov 29	Saturn and Moon
Dec 03	M45 and Moon
Dec 07	Jupiter and Moon
Dec 26	Saturn and Moon
Dec 31	M45 and Moon

celestron.com

121924

Days listed as Sunday - Saturday

Source: *Clelestron*

SAY HELLO TO OUR NEW MEMBERS!

J T Clark
Brian Gull
Brett Hansen
Shane Larsen
Nick Lowe
Justen Ortiz
Kim Stevens
Clive Walker
Jonni Wellington

WELCOME ABOARD!

At SLAS, we are observational astronomers who:

Promote astronomy

Encourage public education and interest

Coordinate activities with professional research

SLAS General Meeting Guest Speakers

MaY 21, 2025

Dr. Emily Strickland from Westminster University. Topic: The Story of the Andromeda Galaxy.

Dr. Emily Strickland earned her Ph.D. in Physics from the University of Utah in 2025, and Bachelor of Science degrees in both Astronomy and Physics from the University of Texas at Austin in 2019. Dr. Strickland is currently an Adjunct Professor of Physics at Westminster University, and previously taught as an Adjunct Professor of Astronomy at Salt Lake Community College. Outside of astrophysics, Emily enjoys painting, collecting four-leaf clovers, and hiking with her dog, Boson.

Photo Credit: LinkedIn

June 18, 2025

Photo Credit: Facebook

John Chapman-Smith of the United Kingdom Society for Popular Astronomy. Topic: Basics of Solar Observing.

Originally from Manchester, UK, John has been an avid amateur astronomer since the age of 16. He began his journey with the Manchester Astronomical Society, where he learned solar observation techniques, including projection methods. A highlight of his early astronomical pursuits was traveling aboard the cruise ship Monte Umbe to witness the 1973 Total Solar Eclipse, which he captured on an 8mm movie camera.

In 1974, John joined the Royal Air Force, serving across Germany and the UK until 1983. After his service, he rekindled his passion for astronomy, focusing on solar studies. He joined the Junior Astronomical Society (now the Society for Popular Astronomy) and, in 1987, became the Solar Section Director. In this role, he collected and analyzed solar data from society members, compiling annual reports. He served in this capacity at various times until 2001 and remains an active contributor, imaging the Sun and reporting solar activity. John has also given lectures to numerous astronomical societies, including a recent presentation in Brisbane, Australia.

Beyond his solar research, John played a significant role in the Society for Popular Astronomy, serving on its Council at various times and filming society meetings for 26 years. In recognition of his dedication, he was made an Honorary Member in 2009.

As a Fellow of the Royal Astronomical Society, John has traveled extensively in pursuit of astronomical experiences. He witnessed the Atlantis Space Shuttle launch in December 1988, visited renowned observatories along the U.S. West Coast, and observed the 1991 Total Solar Eclipse in Mexico.

Passionate about sharing his knowledge, John enjoys mentoring beginners in astronomy, offering guidance on observing the night sky, selecting suitable telescopes, and troubleshooting equipment issues.

Remembering Dave Bernson

(**Photo Credit: Tony Serra** – David from the 2017 eclipse Alcon in Casper WY)

Longtime SLAS member **Dave Bernson** passed away in April. Dave was known for his deep knowledge of the night sky, his commitment to observing, and his presence at both public and private astronomy events over many years. Several club members shared memories of Dave, reflecting on the impact he had within the amateur astronomy community.

Don Colton recalled:

"I have fond memories of Dave. He and I stayed up till dawn one time at the Wolf Creek site and saw Pluto in an 8" SCT. It was a night of perfect seeing—Jupiter, Saturn, and the Moon were spectacular at 500x. One year, following his divorce, Dave lived at Wolf Creek all summer observing. He was the most knowledgeable person of the night sky I ever met."

Tony Sarra shared:

"One of the things I remember most about Dave was his encyclopedic memory of the night sky. One had little need for a star chart when Dave was around."

David George-Kennedy added:

"I will miss Dave. He was an amazing amateur astronomer in many ways."

Lowell Lyon wrote at length about Dave's contributions:

"To sum up what I feel about Dave Bernson—an encyclopedic knowledge of the night sky and a willingness to share his enthusiasm for astronomy with everyone he came in contact with at both public and private events."

He continued:

"I remember with great fondness the 'dynamic duo' of Nate Goodman and Dave Bernson. These two were supportive and ever-present at the Bryce Canyon Astronomy Festival, the Heritage Star Fest in Wayne County, and SLAS-sponsored solar parties, among others. Dave and Nate were also strong supporters of private star parties at Capitol Reef National Park. Many of us remember breakfasts at the Capitol Reef Inn and Café in Torrey, discussing the previous night's observing at Panorama Point."

"There were many private gatherings under dark skies over the years made more enjoyable and memorable by Dave's presence. Those who used Burnham's Celestial Handbook as their primary star atlas would often say, 'Why do you need Burnham's when you have Dave Bernson

around?' You could point at a star or deep-sky object and Dave would have a story or fact to share."

"I asked Dave to serve as emcee for the 2017 ASTROCON convention in Casper, Wyoming, during the total solar eclipse. His ability to engage the audience with humor and enthusiasm endeared him to all who attended."

"We've lost a number of long-time SLAS members and supporters in recent years. Dave Bernson was one of the most noteworthy. I regret that many newer members didn't get the chance to know him. He was truly one-of-a-kind."

We recognize that members' experiences with Dave were varied, and that his legacy—like many—is multifaceted. This remembrance reflects the impact he had on the club and the observing community, while honoring the full range of experiences among members.

As we reflect on his passing, we also reaffirm our commitment to fostering a welcoming, respectful environment for all who share a passion for the night sky.

Rachel Henderson

Dale Wilson

Patrick Wiggins

Brad DeDea

With sincere gratitude, we thank everyone who came out on April 12, 2025, to help clean and care for SPOC. Your time, effort, and willingness to serve made a real difference, and we're so grateful for your support in keeping our space welcoming and ready for discovery.

Photo Credit: Patrick Wiggins

Jamie Bradley

Marlene Egger

Jim Keane

Don Abernathy

Trevor Hebditch

Leslie Fowler

Thank you to Denise Larsen and Luke Moses who also helped, but are not pictured.

Moonquakes: A Window Into Lunar Activity

Moonquakes are seismic events occurring on the Moon, akin to earthquakes on Earth. First detected by seismometers deployed during NASA's Apollo missions, these quakes have provided valuable insights into the Moon's internal structure and ongoing geological activity (NASA, n.d.-a).

Types and Causes of Moonquakes

Researchers have identified four primary types of moonquakes:

1. Deep Moonquakes occur about 700 km beneath the surface and are believed to be triggered by tidal forces exerted by Earth's gravity (Phys.org, 2006).
2. Shallow Moonquakes: These can happen 20–30 km below the surface, reach magnitudes up to 5.0, and last for extended periods, posing potential risks to future lunar missions (Pultarova, 2024).
3. Thermal Moonquakes: Caused by the expansion and contraction of the Moon's surface as it transitions from the extreme cold of lunar night to the heat of lunar day (Phys.org, 2023).
4. Impact Vibrations: Resulting from meteorite impacts on the lunar surface (Phys.org, 2006).

Additionally, the Moon is gradually shrinking as its interior cools, leading to the formation of thrust faults—surface features resembling small cliffs. Movement along these faults can generate moonquakes and has been observed near potential landing sites for NASA's Artemis III mission (NASA, 2024a).

Frequency and Significance

Between 1969 and 1977, Apollo mission seismometers recorded over 22,000 seismic events, indicating that moonquakes are more common than previously thought (Kuta, 2024). While most are minor, the occurrence of shallow moonquakes with significant magnitudes highlights the Moon's active geology.

Understanding moonquakes is crucial for the safety of future lunar missions. Shallow quakes, in particular, could pose hazards to astronauts and equipment, especially in regions like the lunar south pole, which is a target for exploration due to its potential water ice deposits (Pultarova, 2024).

Advancements and Future Research

NASA plans to deploy the Farside Seismic Suite, incorporating technology from the InSight Mars mission, to gather new seismic data from the Moon's far side—the first such measurements in nearly 50 years (NASA, 2024b). Additionally, emerging technologies like Distributed Acoustic Sensing (DAS) offer the potential for more precise detection of lunar seismic activity (Phys.org, 2024).

Studying moonquakes not only enhances our understanding of the Moon's geology but also provides insights into Earth's early seismic activity, offering a comparative perspective on planetary evolution (NASA, n.d.-b).

In summary, moonquakes reveal that the Moon is a dynamic celestial body with ongoing geological processes. As we prepare for future lunar exploration and potential habitation, comprehending these seismic activities becomes increasingly vital.

Resources:

Kuta, S. (2024, April 15). Thousands of Moonquakes, Some of Them Threatening, Discovered in Old Apollo-Era Data. Smithsonian Magazine.

NASA. (n.d.-a). Moonquakes. NASA Science.

NASA. (n.d.-b). 10 Things: What We Learn About Earth by Studying the Moon. NASA Science.

NASA. (2024a, March 20). Shrinking Moon Causing Moonquakes and Faults Near Lunar South Pole. NASA.

NASA. (2024b, March 26). NASA to Measure Moonquakes With Help From InSight Mars Mission.

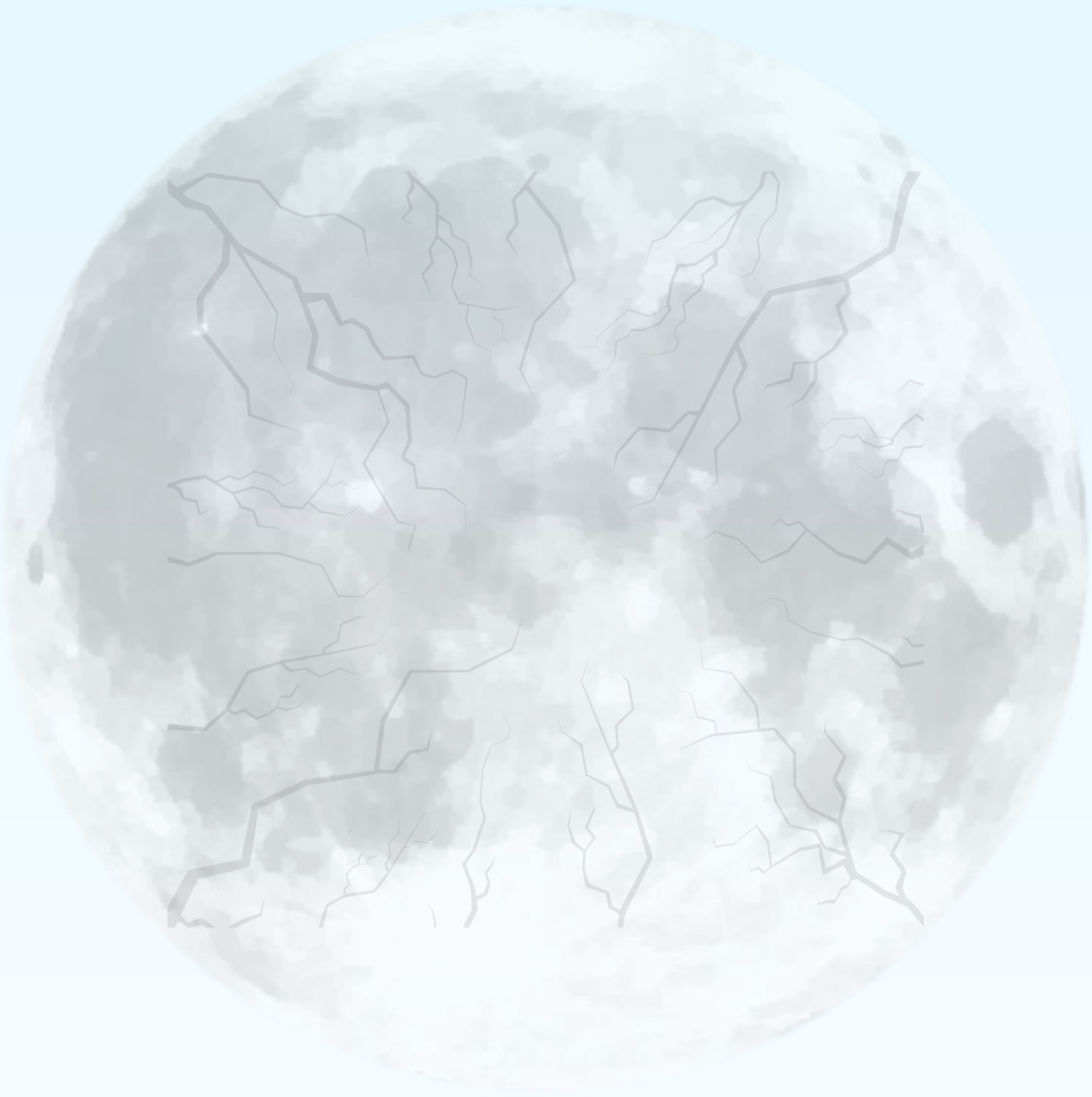
Phys.org. (2006, March 16). Moonquakes.

Phys.org. (2023, September 7). Lunar Alarm Clock Characterizes Regular Thermal Moonquakes.

Resources Continued:

Phys.org. (2024, April 10). New Seismic Sensor for the Moon Could Detect Hidden Quakes.

Pultarova, T. (2024, March 29). The Moon Is Shrinking, Causing Moonquakes at a Potential NASA Landing Site, Study Finds. Smithsonian Magazine.



Constellation CORNER

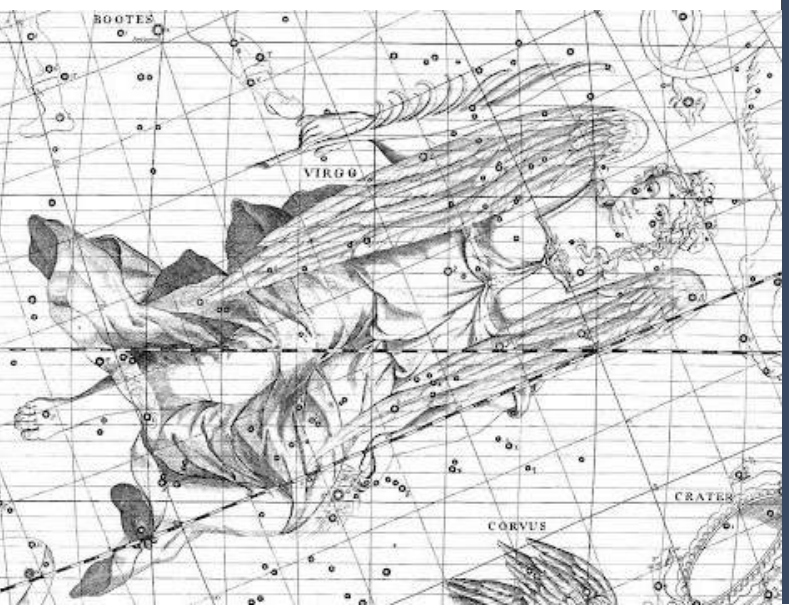
BY: KRISTA LEMOINE

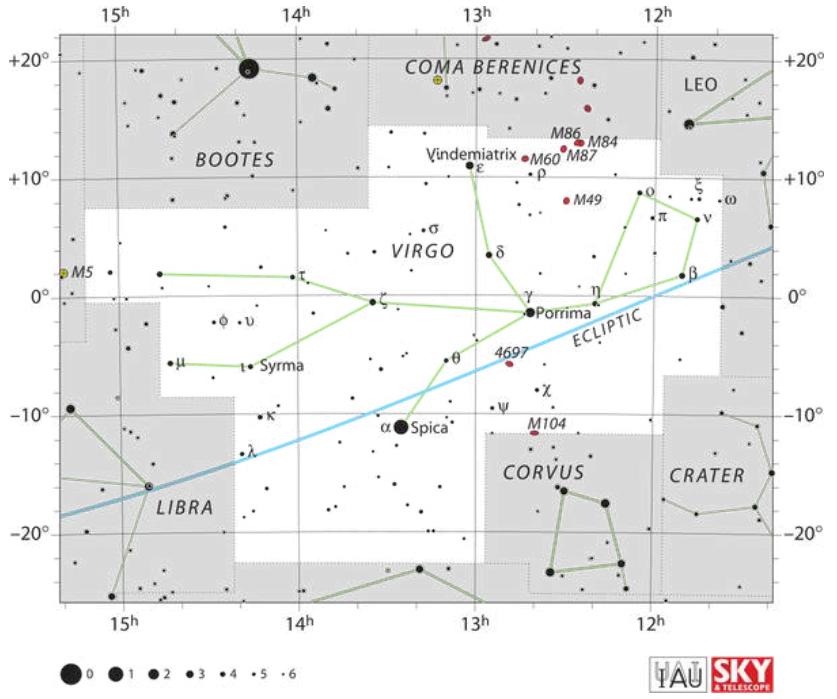
Virgo

THE MAIDEN

MAY 2025

The constellation Virgo is linked to the myth of Demeter, the harvest goddess, and her daughter Persephone. According to the myth, it once was always springtime on Earth. But then the god of the underworld, Hades, kidnapped Persephone. Demeter, overcome with grief, abandoned her role as an Earth goddess. The world's fruitfulness and fertility suffered. So Zeus insisted that Hades return Persephone to Demeter. But Zeus set a condition. He said Persephone must not eat until she returned to her home. That's when Hades gave Persephone a pomegranate. It's said that Persephone ate just six seeds. So Persephone returned to her mother. But – because of the pomegranate – she has to return to the underworld for half of every year.





ASTRONOMICAL LEAGUE OBSERVING TARGETS

Messier

M49
M58
M59
M60
M61
M84
M86
M87
M89
M90
M104

Herschel 400

NGC 4030
NGC 4179
NGC 4216
NGC 4261
NGC 4273
NGC 4281
NGC 4303
NGC 4365
NGC 4371
NGC 4429
NCG 4435
NGC 4438
NGC 4442
NGC 4478
NGC 4526
NGC 4527
NGC 4535
NGC 4536
NGC 4546
NGC 4550
NGC 4570
NGC 4594
NGC 4596
NGC 4636
NGC 4643
NGC 4654
NGC 4660
NGC 4665
NGC 4666
NGC 4697
NGC 4698
NGC 4699
NGC 4753
NGC 4754
NGC 4762
NGC 4781
NGC 4845
NGC 4856
NGC 4866
NGC 4900
NGC 4958
NGC 4995
NGC 5054
NGC 5363
NGC 5364
NGC 5566
NGC 5576
NGC 5634
NGC 5746
NGC 5846

Urban

NGC 4374
NGC 4406
NGC 4486
NGC 4594

Double Star

Gamma Virginis

Click here for the list of Astronomical League Observing Programs.

NGC 4567 & 4568 BUTTERFLY GALAXIES

Magnitude: 10.9
Approximate distance from Earth: 62 million light-years
Location: 12h 36m 34.3s (right ascension), +11° 14′ 17″ (declination)


BUTTERFLY GALAXIES
PHOTO: SPACE.COM


MARKARIAN'S CHAIN
PHOTO: SCOTT CADWALLADER

MARKARIAN'S CHAIN GALAXY GROUP

Magnitude: 11.0
Approximate distance from Earth: 50 million light-years
Location: 12h 27m (right ascension), +13° 10′ (declination)

WHERE IS THE VIRGO CONSTELLATION?

The easiest way to find Virgo is with the handy phrase, "arc to Arcturus and speed on to Spica." Starting with the curved handle of the Big Dipper, follow that arc to the bright star Arcturus, which lies in the constellation Boötes. Continuing along that curve, you'll then find Spica, the brightest star in Virgo, and you can trace the remainder of the constellation from there. Spica is a bright blue variable star, whose name means "ear of grain."

NEXT MONTH:

Ursa Minor

THE LITTLE BEAR
JUNE 2025

10 BRIGHTEST STARS IN VIRGO

α Virginis- Spica - .98
ε Virginis - Vindemiatrix - 2.83
ζ Virginis -Heze - 3.37
δ Virginis - Minelauva- 3.38
β Virginis - Zavijava - 3.61
γ Virginis - Porrima - 3.65
γ Virginis - 3.68
109 Virginis - 3.72
μ Virginis - 3.88
η Virginis - Zaniah - 3.89

OTHER DEEP SKY OBJECTS IN VIRGO

NGC 4567 -Galaxy
NGC 4568 - Galaxy
NGC 4825 - Galaxy
NGC 5068 - Galaxy
NGC 5813 - Galaxy

Constellation CORNER

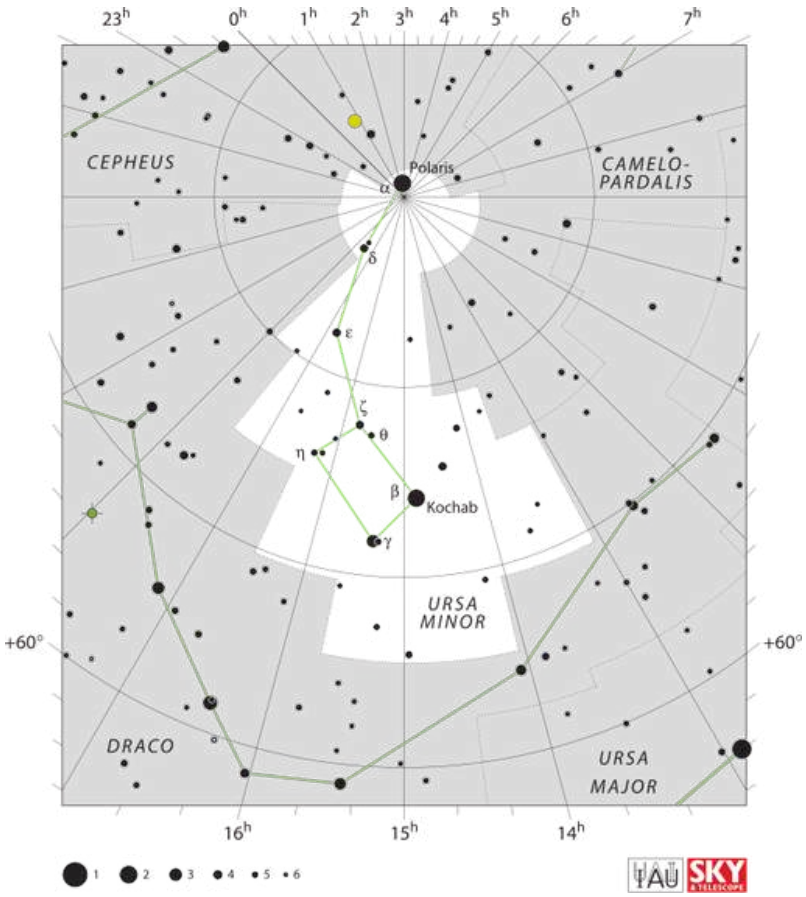
BY: KRISTA LEMOINE

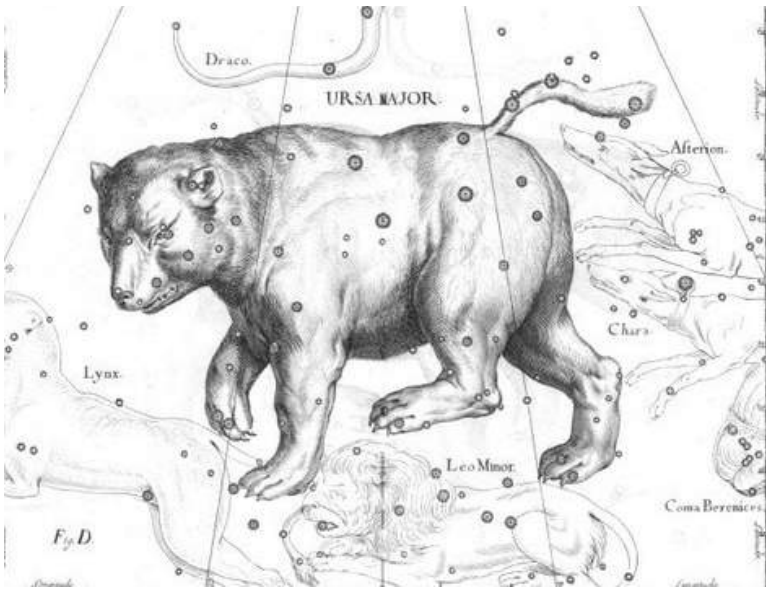
Ursa Minor

THE LITTLE BEAR

JUNE 2025

the Ursa Minor constellation represents Arcas, son of Zeus and the nymph Callisto. Callisto had sworn a vow of chastity to Artemis, but was later unable to resist Zeus' advances and the two had a child, Arcas. When Zeus' wife Hera found out about the betrayal and the child, she turned the nymph into a bear. Callisto spent the next 15 years wandering in the woods and avoiding hunters. One day, Callisto came face to face with her son. Scared, Arcas drew a spear, ready to do away with the bear. Luckily, Zeus saw the scene and intervened before it was too late. He sent a whirlwind that scooped the mother and son up to the heavens, where Callisto became Ursa Major and Arcas, Ursa Minor. In a slightly different version of the myth, it is the goddess Artemis who turns Callisto into a bear for breaking her chastity vow.





ASTRONOMICAL LEAGUE OBSERVING TARGETS

Messier	Herschel 400	Urban	Double Star
None	NGC 6217	None	Alpha Ursa Minoris

Click here for the list of Astronomical League Observing Programs.

STAR TRAILS

Although star trails aren't categorized as deep sky objects, they continue to be a popular subject among many astrophotographers due to their mesmerizing patterns and the unique way they capture the Earth's rotation against the backdrop of the night sky.

STAR TRAILS
PHOTO: SCOTT CADWALLADER

NGC 6217
PHOTO: HUBBLE/NASA

NGC 6217
BARRED SPIRAL GALAXY

Magnitude: 11.2
Approximate distance from Earth: 67 million light-years
Location: 16h 32m 39.217s (right ascension),
+78° 11′ 53.56″ (declination)

WHERE IS THE URSA MINOR CONSTELLATION?

In the Northern Hemisphere, Ursa Minor is circumpolar, which means it is up all night, every night. First find the more easily recognizable Big Dipper, then use the pointer stars to get to the Little Dipper. The pointer stars are the last two stars in the bowl of the Big Dipper. After that, draw a line through them and extend it north until you hit the next bright star. This is Polaris, or the North Star.

NEXT MONTH:

Draco
THE DRAGON
JULY 2025

10 BRIGHTEST STARS IN URSA MINOR

α Ursae Minoris - Polaris - 2.02
β Ursae Minoris - Kochab - 2.08
γ Ursae Minoris - Pherkad - 3.05
ε Ursae Minoris - 4.23
5 Ursae Minoris - 4.25
ζ Ursae Minoris - 4.32
δ Ursae Minoris - Yildun - 4.36
HR5589 - 4.6
4 Ursae Minoris - 4.82
η Ursae Minoris - 4.95

OTHER DEEP SKY OBJECTS IN URSA MINOR

NGC 5832 - Galaxy
NGC 5912 - Galaxy
NGC 6068 - Galaxy
NGC 6251 - Galaxy
NGC 6324 - Galaxy

Dark Sky Advocate Page

Why Do Dark Skies Matter?

Astronomy: Light pollution drowns out stars, planets, and celestial wonders. Clear skies help us explore and understand the universe.

Wildlife: Many animals rely on natural darkness to navigate, hunt, and sleep. Light pollution disrupts ecosystems.

Human Health: Excess artificial light interferes with sleep cycles and overall well-being.

Energy & Environment: Wasted light = wasted energy = more pollution and higher costs.

What Is Light Pollution?

Glare: Excessive brightness that causes visual discomfort.

Skyglow: The bright halo over populated areas, blocking the stars.

Light Trespass: Unwanted light spilling into homes or natural areas.

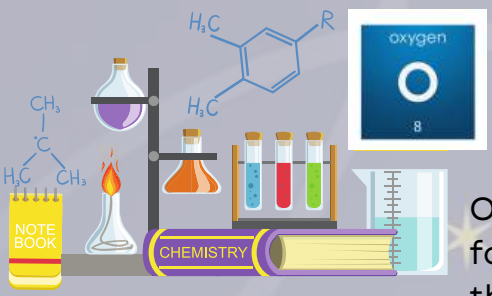
Clutter: Too many bright lights grouped together (like billboards and signs).

How You Can Make a Difference

At Home: Use fully shielded outdoor light fixtures. Install motion sensors and timers. Switch to warm-colored bulbs (3000K or lower).

In Your Community: Host a stargazing night. Encourage dark-sky-friendly lighting policies. Support or join groups like the International Dark-Sky Association (IDA)-Utah Chapter.

The Astronomer's Periodic Table of Elements



Oxygen

Oxygen in Stellar Evolution

Oxygen is the third most abundant element in the universe, following hydrogen and helium. Its synthesis occurs during the later stages of stellar evolution. In massive stars, after the fusion of lighter elements like hydrogen and helium, the core undergoes successive fusion processes: carbon fuses into oxygen, then into neon, magnesium, and so on, up to iron. This sequence continues until silicon fuses into iron, beyond which fusion no longer yields energy, leading to the star's collapse and subsequent supernova explosion.

These supernovae are crucial for dispersing oxygen into the interstellar medium (ISM), enriching it with heavy elements that become the building blocks for new stars and planetary systems.

Oxygen in the Interstellar Medium and Galaxy Formation

The ISM, composed primarily of hydrogen and helium, also contains heavier elements like oxygen, especially in regions that have experienced multiple generations of star formation. Oxygen combines with other elements to form molecules such as carbon monoxide (CO), which play a significant role in cooling molecular clouds, facilitating the collapse of these clouds to form new stars.

Interestingly, studies have indicated that a significant portion of cosmic oxygen is "missing" from the observable ISM. This suggests that oxygen may be sequestered in dust grains or in forms that are challenging to detect, highlighting the complexity of tracing elemental abundances in space .

Oxygen in Exoplanetary Atmospheres

Detecting oxygen in the atmospheres of exoplanets is a key objective in the search for extraterrestrial life. NASA's Hubble Space Telescope has identified oxygen in the atmospheres of exoplanets like HD 209458b, a "hot Jupiter" located approximately 150 light-years from Earth. In this case, oxygen and carbon were observed escaping from the planet's atmosphere due to intense stellar radiation, indicating the presence of these elements but not necessarily biological activity .

Future missions, such as those involving the James Webb Space Telescope, aim to detect biosignatures—indicators of life—in exoplanet atmospheres. One promising method involves identifying specific signals produced when oxygen molecules collide, which could suggest biological processes similar to those on Earth

Conclusion

Oxygen's role in the cosmos is multifaceted: it is forged in the hearts of stars, contributes to the chemical richness of galaxies, and serves as a potential indicator of life on distant worlds. Ongoing research by NASA and the broader astrophysical community continues to unravel the complexities of oxygen's cosmic journey, enhancing our understanding of the universe and our place within it.

Resources

https://www.cfa.harvard.edu/news/abundance-oxygen?utm_source=chatgpt.com

Stars - NASA Science

Heavy element abundances and massive star formation - NASA Technical Reports Server (NTRS)

The Missing Oxygen | Center for Astrophysics | Harvard & Smithsonian

[1303.4232] Hubble Space Telescope detection of oxygen in the atmosphere of exoplanet HD189733b

Oxygen and Carbon Found in Atmosphere of an Extrasolar Planet - NASA Science

New Technique May Give NASA's Webb Telescope a Way to Quickly Identify Planets with Oxygen – Exoplanet Exploration: Planets Beyond our Solar System

Telescope Repairs and Maintenance

Need help with your telescope? Whether it's alignment, collimation, cleaning, or repairs — I'm here to help!

I'm Max, and I'm experienced with Meade, Celestron, iOptron, and Orion/Skywatcher equipment, but I'm happy to work on any telescope. I've cleaned optics, tuned GoTo systems, repaired mounts, and handled a wide range of issues.

If you're having trouble or just need advice, reach out — let's get your telescope back under the stars!
Contact: 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)

SLAS has several telescopes and H-Alpha solar scopes that can be checked out to ***MEMBERS ONLY***.

Please click HERE for details.

K-12 Astronomy Lab

GREAT BASIN OBSERVATORY

Sizes of Stars

How big is our star? How does it compare to other stars in the universe? How enormous can stars be? In this activity students use math and imagination to construct a scaled model of stellar sizes.

Time

- 45-60 minutes of class time

Grade

- 5-8

Next Generation Science Standards

- 5-ESS1-1. Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth.
- MS- ESS1-3. Analyze and interpret data to determine scale properties of objects in the solar system.

Materials

- A metric ruler for every student or small group of students
- Student Lab Sheet- Star Classes Table for every student or group
- Objects that can be used to represent stars and the Earth:
    - o Cherry tomato or small red ball such as a paddle ball (3 cm or about 1 inch in diameter)
    - o Orange
    - o Large grapefruit or yellow ball (14 cm or about 5 inches in diameter)
    - o Cantaloupe
    - o Volleyball
    - o Large blue play ball or balloon (diameter of about 43 cm or 17 inches)
    - o Blue candy sprinkle (to represent Earth)

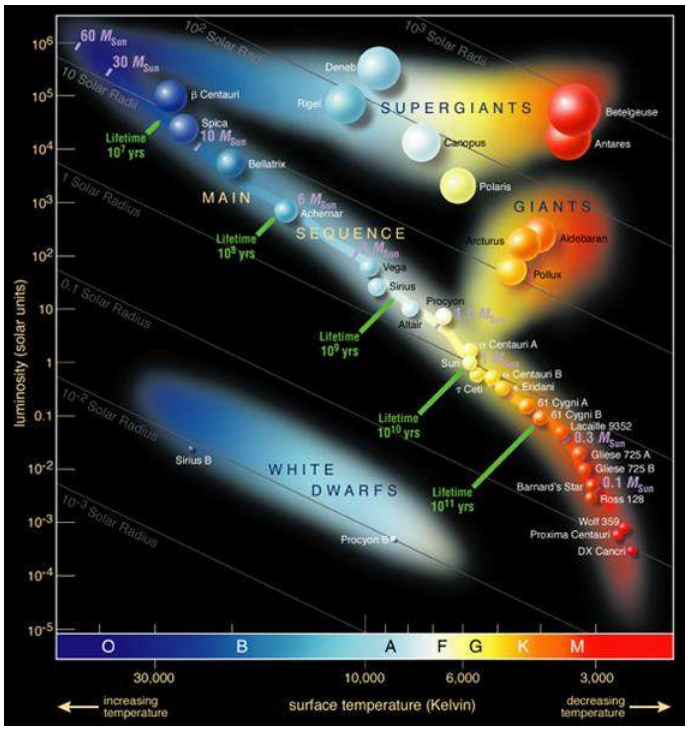
Directions

- Review the concept of scale factors with students. Gather all materials and review teacher background information.
- You will want to split your classroom into small groups for the activity.
- You may want to show this video either before or after the activity http://www.greatbasinobservatory.org/lesson-plans/sizes-stars

This activity is adapted from **"Sizes of Stars"**
from ***Stars and Planets*** by Dr. Mary Urquhart (University of Texas at Dallas)

Explanation

Our galaxy, the Milky Way, is filled with more than 200 billion stars. Stars come in many different sizes, colors, and masses. This activity discusses the types of stars that are in the main part of their "lives", which is called the main sequence, and the sizes of these different classes of stars. Stars are so big in comparison to anything here on Earth that their sizes are difficult to visualize. Why do stars come in different types (or classes)? Looking at photos of stars taken with a powerful telescope like Hubble, we notice that stars appear in different colors. Stars give off light of different colors based on their temperature and the elements in their atmosphere. Luminosity is a measure of how much energy (or light) an astronomical object gives off. The luminosity of a star depends on its size and temperature. Stars spend most of their "lives" generating energy by fusing hydrogen into helium in their cores. The rate of fusion depends on the pressure in a star's core. More massive stars can "squeeze" their cores harder so they will fuse faster and get hotter than stars lower in mass, because they are producing more energy. Generally, the color of a star is linked to its surface temperature. The hotter the star, the shorter the wavelength of light it will emit. The hottest stars (class O) appear blue or blue-white, which are shorter wavelengths of light. They are also the most massive. Cooler stars appear red or red-brown, which are longer wavelengths. (Stars don't emit their light in one wavelength only. A range of light is emitted; the wavelengths of light from a star "peak" in one color on a bell-shaped curve.) The Hertzsprung–Russell diagram (below) plots luminosity versus temperature and shows that the brighter (more luminous) stars are, the hotter they are.



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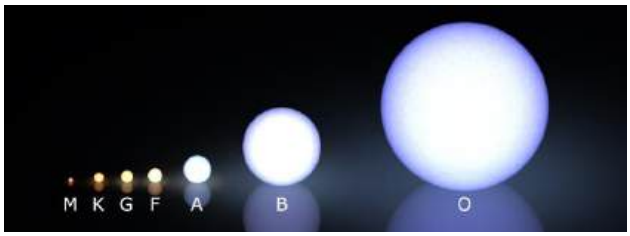

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Directions

Activity

1. Introduce the scale factor of 1:10 billion for this model. One good way to talk about scale factors with your students is to discuss maps. Have students name other types of scale models they have seen before, such as model cars, model rockets, globes, etc. In the scale model for this activity, 1 centimeter on this scale equals 10 billion centimeters.
2. Using the Sun as an example, explain how to convert the real diameter (140 billion cm) to the scaled diameter (14 cm). Have metric rulers available for students and ask: what real-life objects might be 14 cm in diameter? Show students the grapefruit/yellow ball that represents the sun.
3. Give student groups their Lab Sheet Star Classes Table. As a group, have them calculate the scaled size of the other six classes of stars and come up with ideas for model object column. Once the groups have filled out their worksheets, show students the objects you found to represent the different classes of stars. (You will most likely not have anything large enough for the O class – students will have to use their imaginations to visualize something the size of a Smart car). Have students discuss which objects should represent which types of stars. Students can use their rulers to measure the objects (measurements may not match the scaled sizes exactly – keep in mind that the main sequence stars in each spectral class can be a range of sizes).
4. Ask students: "If the Sun is the size of a grapefruit in our model, what size would the Earth be?" (.13 cm or 1.3 millimeters in diameter, which is about the size of a candy sprinkle!)

Discussion

1. How much bigger than the Earth is each star?
2. How much bigger or smaller than the Sun is each star? How does your answer change if you compare masses instead of diameters (size)?
3. What did you find most surprising about the model?
4. The Sun is a medium sized star. Why is the Sun so big and bright to us compared with other stars in the sky?

Learn About BIG Star Betelgeuse:

*It's a red supergiant star—way bigger than our Sun!
*Betelgeuse is part of the Orion constellation, located at Orion's shoulder.
*It's so big that if Betelgeuse were in the center of our solar system, it could reach past Jupiter!
*It's near the end of its life, and someday (maybe tomorrow or maybe thousands of years from now), it will explode in a supernova—a giant starburst!
*Betelgeuse sometimes looks dimmer or brighter—that's because it pulses as it burns fuel.

SLAS Board Meeting
March 12th, 2025

Board Members in Attendance: Trevor Hebditch, Jenette Scott, Hayden Wilde, Rachel Henderson

Other Members in Attendance: Aleta Cox, Ken Warner, Patrick Wiggins, Tony Sarra, Don Abernathy, Krista Lemoine, Jim Keane, Bradley DeDea, and Joan Carman

President Trevor Hebditch called the meeting to order at 7 pm.

OFFICE REPORTS

Astronomical League Contact – Aleta Cox – ASTROCON 2025: Aleta reported that she had missed last month's Astrocon committee meeting. However, there will be another planning meeting on Tuesday, March 18th. Jenette Scott, also on the committee, said that due to budget cuts within the NPS, ASTROCON desperately needs volunteers. Lowell Lyon, conference coordinator and chair, indicated that as of right now, there aren't a lot of volunteers or attendees from SLAS. He would like to see more SLAS members sign up to attend the conference. Aleta and the Board will continue to push for member registrations and volunteers within SLAS.

Library Loaner Scope Coordinator – Joan Carman: Joan provided hard copies of the Library Star Party schedules for the year.

Historian – Patrick Wiggins: Patrick said that he's still just waiting on the new website. He reported that during the recent de-winterizing event at SPOC, he got the Bogdan refractor up and running with help from Sarah Allred, Ben Allred, and Craig Pater.

SPOC Director – Jim Keane: Jim gave an update on the recent de-winterizing event at SPOC. When the weather gets a little nicer, he'll send an email asking for volunteers to help with general cleanup at SPOC (cutting back bushes, cleaning up graffiti, etc.) Jim also brought up the SLAS Insurance Renewals and specifically, whether we should cancel our D&O insurance and look into getting building insurance instead, in the amount of roughly $100k. Trevor said he would take the lead on that.

ZAP Grant Writer - Jim Keane: Nothing to report

Equipment Manager – Trevor Hebditch / Aleta Cox: Trevor and Aleta reported that all equipment has been returned, and an initial cleanup is complete, but the process is not 100% finished yet, due to Trevor's availability. Trevor and Patrick spoke about the donation of Bruce Grim's telescope to SLAS, and there was some discussion on what to do with it. It was determined that we would like to display it somewhere at SPOC- Jim will look into where. Patrick also indicated that Bruce's family may have more items to donate in the near future.

NASA Night Sky Ambassador - Krista Lemoine: Krista passed out NSN materials, including pins for those at the meeting who have done recent outreach.

Newsletter Editor - Jenette Scott: Jenette updated the most recent NOVA to include Dr. Ben Bromley's bio (April general speaker). She's working on the next edition of NOVA and will be ready to send it out on time.

Private Star Party Coordinator - Don Colton: Not in attendance

Sun Party Coordinator - Louis Maez: Happily for Louis, but sadly for SLAS, he was recently hired by Lowell Observatory as a Telescope Specialist. Happily for SLAS, Don Abernathy has agreed to take over as the new Sun Party Coordinator.

Library Star Party Coordinator: The Board voted to have Hayden Wilde integrate Library Star Parties into her current Board Member at Large - Star Parties responsibilities.

BOARD MEMBER REPORTS

Vice President – Jenette Scott

Secretary / Treasurer – Rachel Henderson

Financial Report and CD's Progress: Rachel presented the February financial report and indicated that $20k from the SLAS general balance has been moved into a 6-month CD with the Bank of Utah.

Board Member – Hayden Wilde

Hayden gave an update on the recent U.S. Air Force Auxiliary event, in which she, Jenette, Rachel, and Trevor attended. Jenette taught a class, and the others ran a SLAS booth. She reported that the Westfield Elementary star party was canceled again due to weather and will likely be rescheduled in the fall.

Board Member – Max Byerly

Max was not in attendance due to illness. Feel better soon, Max!

President – Trevor Hebditch

General Meeting Talks Committee: One more member is needed for the committee.

SLAS Website: Ken did not give a presentation on the website updates, but indicated it's going well and that he expects it to be finished within the next month or two. He and Tony indicated they haven't received feedback from members about the dev website, and Jenette said she would send out a reminder/blast.

SLAS Content Google Drive: Now holds all files, instead of Trevor's personal Google Drive.
https://drive.google.com/drive/folders/1FEt3WMP-v8MgaBzV5a8joUE-33YrvbSO

General Meeting Speakers: Trevor reported that we have speakers lined up for the rest of the year, and even a few into next year. The list can be found here.

Discussions On Strategy And Goals Of The Society:

1. What is the vision for the society
2. How do we change the perception from a club to a society
3. Are we good with the current operational direction of society?
4. Do we want more members?
5. More participation or visibility within the community? Participating in larger civic events such as Stansbury Days, Farmers Markets, Art shows, etc.

6. SPOC is extremely underutilized, and we do not use it to our advantage; it is the club's most significant asset next to its members.
7. How can we better utilize SPOC and have it become more widely known?
8. Do we chat with the local universities to see if there is a way to co-op with them?
9. Should we expand how we use social media, outreach, and advertising

On Mon, Feb 24, 2025, at 3:34 PM, Trevor Hebditch <tjhebditch@gmail.com> wrote:

Hi,

This is my next "topic". We have the visibility, ability, and opportunity, so let's shed light on the elephant(s) in the room and have the discussion publicly, inviting comments from the WHOLE membership, not just those attending the board meetings. SLAS blast it :-)

An interesting question was raised during the January board meeting to be considered and discussed as a future board meeting: What are the aims and purpose of SLAS? It seems simple, but it is complex and even competing. There are three main reasons/goals stated in the constitution:

a. Desiring to secure the pleasures and benefits of an association of persons interested in astronomy
b. to promote the science of astronomy and its associated sciences
c. to encourage and coordinate activities with professional research

So, what does that mean in practice? Here are some questions that come to mind:

- We have members of different ages and levels of knowledge, and thus their needs, for example, different types of lectures that will interest the levels of knowledge, basic vs advanced topics
- We have different desires for meetings, some attend the general meetings, some the star parties, and some just private star parties or only communications.
  - Some can only attend general meetings via remote due to personal considerations or restrictions, or should the meetings be in person only.
  - Some prefer social media channels, others emails, and some only text messages.
- How much equipment should SLAS own and lend out
- How do we ensure continuity and succession
- What is our relationship with other local societies and clubs, universities, libraries, or other institutions such as the Clark Planetarium, or small school clubs? What do we share?
- Should SLAS be run like a club, or as a society, with what level of management and governance, and how is that organized?
- How much do we promote and educate astronomy locally
- What does “to encourage and coordinate activities with professional research” even mean

These are just a few questions that we need to consider as we move forward and navigate what SLAS's vision and mission statements are, and from that, the guiding principles for the board and membership.

From my perspective, I would like to see the three main reasons/goals summarized into a single motto - Inspire, Educate, Enable – which I think helps define the above.

Thoughts?

Trevor

SLAS General Meeting Minutes
March 19, 2025- 7:30 pm
Salt Lake Community College- Redwood Road Campus

47 people in attendance + 15 on Zoom

Introduction

Vice-President Jenette Scott called the meeting to order at 7:30 pm. She asked if anyone in attendance was new, and Mary and David Wellington, Meg, and Clive Walker introduced themselves.

Martin Ratcliffe then gave a brief introduction of our speaker, Ray Villard, and turned the meeting over to him.

Lecture

Ray gave an engaging, inspiring presentation titled "Hubble & Webb: Unveiling a New Universe".

The link to the Zoom recording can be found here: https://youtu.be/PRDWgUbuJZ4

Meeting End

When Ray's presentation was over, Jenette reviewed some SLAS business.

- Gave a quick February financial report
- Ken Warner gave a quick update on the new website's progress and requested that members test out the dev site
- ASTROCON 2025 registration has been extended through May 31st.
- Patrick Wiggins gave a reminder for Bogdan Refractor instructors- there will be an instructor refresher training on Sunday, March 23rd, at 2:00 pm.

Jenette then concluded the meeting and invited everyone to attend "Advanced Training" at Dee's.

Minutes submitted by: Rachel Henderson, Secretary/Treasurer

SLAS Board Meeting Agenda
April 9th, 2025
7:00 PM
Denny's Restaurant – Redwood Road and North Temple

Welcome

- **Trevor opened the meeting at 7:00 PM exact.**

Office Reports

Astronomical League Contact – Aleta Cox

- ASTROCON still needs volunteers for the registration desk. They've requested those going sign up in 2 hour shifts to answer questions and direct attendees.
- Encouraging more SLAS members to get involved and be registered. Will send a SLAS blast and SLAS talk.
- Walter Williams needs a lot of help at the Rainbow Point star parties at ASTROCON.

Library Loaner Scope Coordinator – Joan Carman

- Murray Library has requested 2 more telescopes. They have 1 already, and Joan is in the process of getting them a 2nd and 3rd.

Historian – Patrick Wiggins

- Waiting on new website. Old issues will be put online, but in the meantime, semi-on hold until the new site is up.

SPOC Director – Jim Keane

- Clean up this Saturday at SPOC / Dale is helping solve the issues the 11" scope has been having. Awaiting further investigation, and working on the issue with Jim.
- Stansbury Days is being discussed and is in the works.
- New restroom keys are also in the works, that way those running business at SPOC will have some extra control.

Equipment Manager – Trevor Hebditch / Aleta Cox

- Opening back up loan program
- Donation of Bruce Grim telescope
- Equipment is ready for loaning once again, and a SLAS blast will be sent.
- Bruice Grim's telescope is in the clements building waiting for decisions and display.

NASA Night Sky Ambassador - Krista Lemoine

- Absent
- Woking on constellation corner

Newsletter Editor - Jenette Scott

- Added the 20th Anniversary of the Harmons Building and Grim Telescope to the March/April 2025 Nova Newsletter issue. The May/June 2025 issue will be published in the last week of April. Please let me know if anyone wants anything specific in the Newsletter.

Solar Star Party Coordinator - Don Abernathy

- Don requested Ken check website permissions to ensure he has access to sending SLAS blasts.
- Doon requested our opinions on posting cancellations rule: Day before- 5-6 pm (was recommended)
- Don was once again thanked for taking over role

Board Member Reports

Vice President – Jenette Scott

- Has contacted KUTV News, KTVX News, KSL News, Fox 13 News, Deseret News, Salt Lake Tribune, Tooele Transcript Bulletin, and Travis Barton who is editor in chief and "supreme editor" of all 15 City Journals in the Salt Lake Valley to let them know our SPOC Star Party, Library Star Party, and Solar Party Schedules.
- Currently working on a General meeting speaker calendar to also send to these news outlets to help build public awareness of SPOC.
- Shared the invite to April General Meeting to learn about the cross between global warming and astronomy in using cosmic dust as a sun shield to help cool the earth with surrounding astronomical clubs.
- Created events on SLAS talk for all SPOC star parties and Solar Parties. The County Library System has created their events for SLAS coordinated library star parties on their Facebook wall. To eliminate duplication and confusion, I am sharing those created events on SLAS talk as we do one library party and prepare for the next party.
- The Venmo tip idea we passed earlier this year has received some concerns about the public having tip fatigue from SLAS members and a few telescope operators. How do we want to navigate this and move forward?
    - The question was raised whether or not we should continue to allow people to tip, the consensus is yes. And Jenette said Rachele is ready on the venmo tip side. "SPOC tip jars will NOT be put back up as of right now"-Jim

Secretary / Treasurer – Rachel Henderson

- Absent
- Trevor specified the insurance has been renewed for 6 months, and will be re investigated again 6 months from now.

Board Member – Hayden Wilde

- Ritzy Rescue Ranch Sanctuary
    - Was this months private star party (at their location)
    - Canceled due to family illness
    - Future date pending
- Air Force Auxiliary:
    - April 25th
    - Jenette will teach a class, on intro to telescopes.
    - Private SPOC star party after class
    - Plus we will have loaner scopes set up on grass for students to test their knowledge on and get some hands-on experience.
    - Requesting: Ealing operator, and Grim operator.
- Camp Wapiti: (A children's Non-Profit in Tooele)
    - May 28th
    - Wanting a "Intro to the Solar System" class for kids.

- A Star Party afterwards.
- Requesting: A speaker (more details will be provided)
  - HAS to be up before 7pm or they will close off the canyon: Check with them?

Board Member – Max Byerly

- Proposal: "Lifetime Achievement Membership- honoring those who have been very involved with SLAS for a long time"
  - Trevor says we've discussed this before and we cannot, within the constitution, pardon members from members from membership payment. However we could make a plaque or engraving on a building in their honor. We will delay the decision until next month, but everyone should give it some thought.

President – Trevor Hebditch

- General meeting talks quandary - I have Ray Villiard, Ray Eads, Martin and Jumana who could do all talks in either Oct or Nov - what order / who do I push out to next year? I am thinking of using Martin and Jumana as emergency backup's, but wanted to check other opinions.
- Website update:
  - Some issues have come up, but are hopefully getting wrapped up.
  - Old nova from patrick will be used as an uploaded test.
  - Ken would like to request help in the future, for ongoing maintenance on the new website, after it goes up.
  - Trevor will send over observatory and equipment pictures for the website.
  - Jim requested the clements be added as an equipment checkout option on the new website.
  - GOAL: no longer mid April, but "later"
  - Jenette wants to know if the Nova uploads will be the same size, the largest she can process currently is 90 Megabytes, Ken will extend her uploading capabilities.
- The clements will be added in like any other telescope on the website, you will not have to be trained on the other telescopes to use it, but will need to pay a key fee and everything else like the rest of the scopes. Jim will work out the rules with Ken and put out a SLAS blast. Current trainers to be on the website: Mike Clements, Leslie Fowler, and Hayden Wilde.
- Society Improvement Ideas:
  - Table at SPOC star parties: A table where special details, SPOC brochures, handouts, and educational content may be given out at star parties. No vote is needed and we have decided to set that up again. Anyone is welcome to contribute meaningful content to this, and we will have one or two people set up to run it each night.
  - Someone suggested food trucks at SPOC star parties: Jim said none of the food trucks he has talked to are interested, not enough people. Concern was also raised about littering, and food around equipment.
  - Swag: Small things to give out for free - kids/adults: trinkets/stickers/pencils/pins random advertising. We will come back next month to discuss more. So be thinking of ideas.
  - Farmers Markets: Don says he would have to round up at least 2-3 solar telescopes to set up. Provides broad exposure to a large variety of people, possibly some donations through this. Better foot traffic than winchester park for sure.
    - Max asked if this increases extra foot traffic, if we would have to do SPOC star parties more frequently to cut down on lines and such things? Most all said no.

Other/Missed Items

- Jim reminds us that SPOC is a 501C3, so our financials must be available to the public (Currently it is members only that can find it easily, and see it on the website). Trevor clarifies that he announces them to

the general meetings each month, and has them in an open google drive, available to anyone interested. In sum, we are covered.

- SPOC is under utilized: Jim, and Patrick discuss, In the beginning, SPOC was over utilized, and now we are under using it. They question whether it is a good or bad thing that we do not have it being used 90% of the time, unless there is an official SPOC star party. We have discussed an "observatory for rent" idea. For general public events and others. To clarify this is not for the money, but for the popularity and utilization of the club.
    - Patrick raises the question about what we do with all the money, most agreed we should keep that for future large costs like building repairs and others.
    - Avoiding membership fatigue: Could we pay operators to run these events?
- **General Meeting Speakers**
    - https://docs.google.com/spreadsheets/d/1GFdcbhjuxrneVT2phsZsjVnmBjMCrJLk/edit?gid=1517936968#gid=1517936968 Click Here

- Trevor closed the meeting at 8:04

Meeting notes submitted by Hayden Wilde, Board Member at Large

SLAS
SALT LAKE ASTRONOMICAL SOCIETY

SLAS General Meeting Minutes
April 16, 2025- 7:30 pm
Salt Lake Community College- Redwood Road Campus

30 people in attendance + 10 on Zoom

Introduction

President Trevor Hebditch called the meeting to order at 7:30 p.m. He thanked SLCC for hosting us and welcomed any "first-timers."

Lecture

Dr. Ben Bromley gave a presentation called "Atmospheric Solar Shield".

The link to the Zoom recording can be found here: https://youtu.be/enKm49mwtcU

Meeting End

After the presentation, Trevor went over some SLAS business:

- Gave a quick March financial report
- Ken Warner gave a quick update on the new website's progress and requested that members test out the dev site
- ASTROCON 2025 needs more volunteers
- Invited member comments
- Reminded members to sign up to become an operator or assistant at the SPOC Star Parties

Trevor then concluded the meeting and invited everyone to attend "Advanced Training" at Dee's..

Minutes submitted by: Rachel Henderson, Secretary/Treasurer

Correction Notice:

In the General Meeting notes published in the January/February 2025 and March/April 2025 issues of the Nova Newsletter, it was incorrectly stated that the advanced training meetings took place at Denny's Restaurant. The correct location was Dee's Restaurant. This error has been corrected in the original meeting notes.

We apologize for the confusion and appreciate your understanding.