The Sonora Astronomical Society's
SONORAN STARRY NIGHTS

FEBRUARY 2025

February Meeting Details

DATE: February 15th, 2025
MEETING TIME: 2:30 PM
PLACE: Sahuarita Library & Zoom
MEETING SCHEDULE:
(2:15 PM ZOOM Waiting Room Available)
2:30 Meeting Intro and Welcome
2:40 Featured Presentation Followed by Club Activities/Business

February Presentation

Speaker: Speaker and topic will be announced at the meeting

Subject: To be announced

Abstract: .

Biography:

Next Member Star Parties

DATE: Thursday, February 27th, 2025
TIME: 6:00 PM *NEW LOCATION*
PLACE: Madera Canyon Parking Lot

- LOOKING AHEAD -
THE FOLLOWING STAR PARTY WILL BE:

DATE: Thursday, March 27th, 2025
TIME: 6:30 PM
PLACE: Madera Canyon Parking Lot

NOTE: If you have a telescope that you don't know how to use, or are looking to buy a telescope and want to compare different telescopes, join us at a star party and we can give you some help.

Did you know?

NASA's Night Sky Network has a live Webinar each month (and a video that can be viewed folloeing the live presentation) featuring an interesting array of subjects. February's topic is:
JWST: Revealing the Invisible Universe with Joseph DePasquale, on February 25th.

Details and the YouTube link can be found on the website News & Letters page and on the Events page/Calendar **@**
https://sonoraastronomicalsociety.org/

UPCOMING EVENTS

NEXT CLUB MEETING
DATE: **March 15th, 2025**
LOCATION: Sahuarita Library & Zoom
TIME: **2:30 PM (in person + Zoom)**
Speaker: **T B A**
Subject: **T B A**

SONORAN STARRY NIGHTS

PRESIDENTS NOTES

Greetings everyone,

Our February meeting has been moved to later in the month. It will be held on February 15th at the Sahuarita library (670 Sahuarita Rd). There is parking behind the library. The meeting room is just to the left as you enter the front door. The meeting will officially start at 2:30pm this month with ZOOM login available by 2:15pm. The March meeting will be on the 15th and April will be held on the 12th.

We no longer have access to Canoa Preserve Park for our club star parties now. January was the first month for our new site on the way up to Madera Canyon. Unfortunately, no one other than myself attended. There is a map to the site available on our website. I will have a sign at the entrance to the road into the site. Our February club star party is scheduled for the 27th. If you have any questions about the site, let me know.

Stay safe,

John Dwyer
President

IN THIS ISSUE

MEMBER EQUIPMENT FOR SALE

Have a telescope or other astronomy equipment for sale? Contact John Dwyer with your item(s) to get them listed here.

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The SAS website has a good one-page article from Sky & Telescope that can help get you started. Copy and paste this link:

https://sonoraastronomicalsociety.org/newsletters/

Basic monthly star charts are now available. Look on the website Home page yellow banner.

The website also has a list of suggestions of Planetarium Apps for your phone, several FREE!

THE FEBRUARY SKY

SKY HIGHLIGHTS FOR FEBRUARY

The evening night sky is still loaded with planets again this month. **Mars** reached opposition in mid-January and is still very prominent this month. Its disk size as well as its magnitude will drop as the month goes on. **Saturn** is low in the southwest evening sky at sunset and will become more difficult to view as it approaches the Sun. **Neptune** is about 12° behind Saturn. **Venus**, which reached greatest eastern elongation from the Sun last month, is still brilliant in the southwestern evening sky, and will in fact reach almost mag -5 this month. **Jupiter** reached opposition two months ago and still will be visible most of the evening. **Uranus** reached opposition in November and is about 18° in front of Jupiter. **Mercury** transitions from the morning sky and later in the month will appear in the evening sky.

There will be an occultation of Mars by the Moon on the evening of the 13th from about 6:49pm to 7:48pm. Mars is near opposition and is very bright so it should make a good show. You can't miss the red color of Mars.

There will be no bright comets this month. **Comet C/2024 G3 (ATLAS)** did survive its close approach to the Sun last month. It brightened to mag -2 or -3, had a magnificent tail, and was apparently even visible during the day. But it was very difficult to view from the northern hemisphere in the evening. Eventually its head disintegrated. No other comets are worth viewing at this point.

If you have any solar viewing equipment, the Sun is extremely active now as it has officially reached maximum. As it is getting a little cooler now, break out the solar equipment and take a peek.

FEBRUARY MOON/SUN TIMES

DATE	M-Rise	M-Set	M-Phase	Sun-set	Star Party
Sat 02/01	9:23	21:43		17:58	
Sun 02/02	9:53	22:50		17:59	
Mon 02/03	10:24	23:58		18:00	
Tue 02/04	10:58	-----		18:00	
Wed 02/05	11:37	1:07	1st Qtr	18:01	
Thu 02/06	12:22	2:17		18:02	
Fri 02/07	13:14	3:26		18:03	
Sat 02/08	14:14	4:29		18:04	
Sun 02/09	15:18	5:25		18:05	
Mon 02/10	16:23	6:12		18:06	
Tue 02/11	17:27	6:51		18:07	
Wed 02/12	18:28	7:24	Full	18:08	
Thu 02/13	19:27	7:53		18:08	
Fri 02/14	20:23	8:19		18:09	
Sat 02/15	21:18	8:43		18:10	SAS Meeting
Sun 02/16	22:13	9:08		18:11	
Mon 02/17	23:08	9:33		18:12	
Tue 02/18	-----	10:01		18:13	
Wed 02/19	0:05	10:32		18:14	
Thu 02/20	1:04	11:08	3rd Qtr	18:14	
Fri 02/21	2:04	11:51		18:15	
Sat 02/22	3:03	12:42		18:16	
Sun 02/23	3:59	13:41		18:17	
Mon 02/24	4:50	14:46		18:18	
Tue 02/25	5:35	15:55		18:18	
Wed 02/26	6:14	17:05		18:19	
Thu 02/27	6:49	18:15	New	18:20	S.A.S. SP
Fri 02/28	7:21	19:25		18:21	
					(S)=Solar

This article is distributed by NASA's Night Sky Network (NSN).

February Night Sky Notes: How Can You Help Curb Light Pollution?

By Dave Prosper, Updated by Kat Troche

Before and after pictures of replacement lighting at the 6th Street Bridge over the Los Angeles River. The second picture shows improvements in some aspects of light pollution, as light is not directed to the sides and upwards from the upgraded fixtures, reducing skyglow. However, it also shows the use of brighter, whiter LEDs, which is not generally ideal, along with increased light bounce back from the road. Image Credit: The City of Los Angeles

Light pollution has long troubled astronomers, who generally shy away from deep sky observing under full Moon skies. The natural light from a bright Moon floods the sky and hides views of the Milky Way, dim galaxies and nebula, and shooting stars. In recent years, human-made light pollution has dramatically surpassed the interference of even a bright full Moon, and its effects are now noticeable to a great many people outside of the astronomical community. Harsh, bright white LED streetlights, while often more efficient and long-lasting, often create unexpected problems for communities replacing their older streetlamps. Some notable concerns are increased glare and light trespass, less restful sleep, and disturbed nocturnal wildlife patterns. There is increasing awareness of just how much light is too much light at night. You don't need to give in to despair over encroaching light pollution; you can join efforts to measure it, educate others, and even help stop or reduce the effects of light pollution in your community.

Amateur astronomers and potential citizen scientists around the globe are invited to participate in the Globe at Night (GaN) program to measure light pollution. Measurements are taken by volunteers on a few scheduled days every month and submitted to their database to help create a comprehensive map of light pollution and its change over time. GaN volunteers can take and submit measurements using multiple methods ranging from low-tech naked-eye observations to high-tech sensors and smartphone apps.

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Globe at Night citizen scientists can use the following methods to measure light pollution and submit their results:

- Their own smartphone camera and dedicated app
- Manually measure light pollution using their own eyes and detailed charts of the constellations
- A dedicated light pollution measurement device called a Sky Quality Meter (SQM).

The free GaN web app from any internet-connected device (which can also be used to submit their measurements from an SQM or printed-out star charts)

Night Sky Network members joined a telecon with Connie Walker of Globe at Night in 2014 and had a lively discussion about the program's history and how they can participate. The audio of the telecon, transcript, and links to additional resources can be found on their dedicated resource page.

Light pollution has been visible from space for a long time, but new LED lights are bright enough that they stand out from older streetlights, even from orbit. Astronaut Samantha Cristoforetti took the above photo from the ISS cupola in 2015. The newly installed white LED lights in the center of the city of Milan are noticeably brighter than the lights in the surrounding neighborhoods. Image Credit: NASA/ESA

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The International Dark-Sky Association (IDA) has long been a champion in the fight against light pollution and a proponent of smart lighting design and policy. Their website provides many resources for amateur astronomers and other like-minded people to help communities understand the negative impacts of light pollution and how smart lighting policies can not only help bring the stars back to their night skies but also make their streets safer by using smarter lighting with less glare. Communities and individuals find that their nighttime lighting choices can help save considerable sums of money when they decide to light their streets and homes "smarter, not brighter" with shielded, directional lighting, motion detectors, timers, and even choosing the proper "temperature" of new LED light replacements to avoid the harsh "pure white" glare that many new streetlamps possess. Their pages on community advocacy and on how to choose dark-sky-friendly lighting are extremely helpful and full of great information. There are even local chapters of the IDA in many communities made up of passionate advocates of dark skies.

The IDA has notably helped usher in "Dark Sky Places", areas around the world that are protected from light pollution. "Dark Sky Parks", in particular, provide visitors with incredible views of the Milky Way and are perfect places to spot the wonders of a meteor shower. These parks also perform a very important function, showing the public the wonders of a truly dark sky to many people who may have never before even seen a handful of stars in the sky, let alone the full glorious spread of the Milky Way.

More research into the negative effects of light pollution on the health of humans and the environment is being conducted than ever before. Watching the nighttime light slowly increase in your neighborhood, combined with reading so much bad news, can indeed be disheartening! However, as awareness of light pollution and its negative effects increases, more people are becoming aware of the problem and want to be part of the solution. There is even an episode of PBS Kid's SciGirls where the main characters help mitigate light pollution in their neighborhood!

Astronomy clubs are uniquely situated to help spread awareness of good lighting practices in their local communities to help mitigate light pollution. Take inspiration from Tucson, Arizona, and other dark sky-friendly communities that have adopted good lighting practices. Tucson even reduced its skyglow by 7% (as of 2018) after its own citywide lighting conversion, proof that communities can bring the stars back with smart lighting choices.

SONORAN STARRY NIGHTS

S.A.S. CLUB OFFICERS

OFFICE/POSITION	NAME	PHONE NO.
Chairman of the Board	Open	
President	John Dwyer	(520) 393-3680
Secretary	Michael Moraghan	(520) 399-3352
Treasurer	John McGee	(520) 207-6188
Star party Coordinator	Open	(520) 303-6920
Newsletter Editor	Joe Castor	(**6**20) 584-4454
Webmaster	Joe Castor	(**6**20) 584-4454
ALCOR* (Currently Inactive)	Inactive	(520) 396-3576
NSN** Representative	Open	(520) 303-6920
Past President Emeritus	Open	
*Astronomical League		
**Night Sky Network		

WHY JOIN SAS

1. SAS Family Membership Fee is only $25.00 per year.
2. SAS monthly newsletter “The Sonoran Starry Nights.”
3. Top-quality astronomy lectures by local astronomers!
4. SAS Discount for Astronomy Magazine $34.00 for 1yr or $60.00 for 2 yr renewed through our treasurer.
5. SAS Discount subscription rate for Sky & Telescope Magazine — self-renewed.
6. RASC Observer’s Handbook at a discount, $30.00.
7. SAS T-Shirts for sale for $10.00—M, L, XL.
8. Member of International Dark-sky Association (IDA).
9. SAS Discount for Astronomy 2020 Calendar $10.00
10. SAS monthly Member Star Parties.
11. SAS Telescope and astronomy book loan programs.
12. SAS outreach to astronomy education in schools.
13. SAS fellowship with other amateur astronomers!

CLUB DUES

Dues (family or individual) are $25 annually, payable each year in the month you initially joined the club. You will receive a reminder in the monthly newsletter e-mail of your due date. You can either pay at the club meeting or mail it to the club’s address (S.A.S., P.O. Box 1081, Green Valley, AZ, 85622).

SAS WEBSITE

If you want to keep up-to-date with club activities, such as star parties, etc., check out our website (and Calendar) at:
HTTPS://sonoraastronomicalsociety.org

SAS STATISTICS & FINANCES

Lifetime Members:	1
Individual & Family Members:	105
Total Membership:	**106**

Bank Balance as of Dec. 31:	$ 1,160.61
Deposits / (D/Ws):	$ 125.00/ ($.00.00)
Bank Balance as of Jan. 31:	**$ 1,285.61**

LOCAL ASTRO-IMAGING GROUP: Sonoran Desert Astro Imagers (SDAI), Larry Phillips, Coordinator

Are you interested in Astrophotography or are you currently involved in imaging the skies? If so, you are invited to join the Sonoran Desert Astro Imagers group. Our meetings focus on improving our skills, helping each other, workshops, and field trips. We meet on Thursdays at 9 AM. The meetings are on Zoom, except once-a-month we get together in-person at the Quail Creek Conference Center. Email notifications are sent to members before each meeting.
Please send your Name and E-mail address to my address below and we'll include you in the emailing notices of monthly meetings; "the when and where meeting notice." Do you have any questions? If so, call me (Larry Phillips) at (520) 777-8027 or email to llp41astro@cox.net. Clear Skies! Larry Phillips

ABOUT THE ASTRONOMICAL LEAGUE

While SAS is no longer an active member of the Astronomical League, a SAS member may join the Astronomical League as an at-large member. What are the advantages to joining the AL?
1. You can receive various observing awards by joining an "observing club" and observing the required number of objects. There are all levels of clubs from beginner to advanced, viewing constellations to deep-sky objects and using either your naked eyes, binoculars, or a telescope. Contact our ALCOR rep Burley Packwood for details.
2. You can get a 10% discount on books purchased through the AL Book Service.
3. You will receive the AL's quarterly "Reflector" magazine which keeps you up to date on all the AL activities.
More info at www.astroleague.org

SAS IS A MEMBER OF IDA

SAS is proud to be a member of the International Dark-Sky Association, supporting the reduction in light pollution around the U.S. and the world.
More info at www.darksky.org

SAS NON-PROFIT STATUS

The Sonora Astronomical Society is a 501 (c) (3) nonprofit charitable organization! SAS has a CERTIFICATE OF GOOD STANDING from the State of Arizona Corporation Commission!

MAGAZINE SUBSCRIPTIONS

To renew your Sky and Telescope Magazine at the Club Rate, you can go directly to their website, or to order it new, or to order or renew Astronomy Magazine, contact the Club Treasurer.

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