



# The Sonora Astronomical Society's SONORAN STARRY NIGHTS

## NOVEMBER 2023

### November Meeting Details

**DATE:** Tuesday, November 14th, 2023  
**MEETING TIME:** 7:00 PM  
**PLACE:** La Posada Rec Center & Zoom  
**MEETING SCHEDULE:**  
(6:30 ZOOM Waiting Room Available)  
7:00 Meeting Intro and Welcome  
7:10 Featured Presentation Followed  
by Club Activities/Business

### Next Member Star Parties

**DATE:** Thursday, November 9th, 2023  
**TIME:** 5:15 PM  
**PLACE:** Canoa Preserve Park

**LOOKING AHEAD -  
THE FOLLOWING STAR PARTY WILL BE:**

**DATE:** Thursday, December 14th, 2023  
**TIME:** 5:00 PM  
**PLACE:** Canoa Preserve Park

*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.*

### UPCOMING EVENTS

#### NEXT CLUB MEETING

**DATE:** December 12th, 2023  
**LOCATION:** La Posada Rec. Center  
**TIME:** 7:00 P.M. (in person + Zoom)  
**Speaker:** Bob King  
**Subject:** Getting the Most Out of Solar Cycle 25

### November Presentation

**Speaker:** John Barentine  
of Dark Sky Consulting

**Subject:** Light Pollution and Dark Skies in Southern Arizona and Beyond

**Abstract:** The world at night is lighting up at an alarming rate. A host of ecological and social consequences comes with this rapid environmental change, but solving this problem is simple and cost effective. In this talk John will review what we know (and don't know) about light pollution, how it affects us, and which mitigation strategies are most effective. From there he will describe an effort to revitalize the Southern Arizona chapter of DarkSky International (DarkSky International was formerly known as the International Dark-Sky Association) and the plans for regional advocacy and action in coming years.

**Biography:** John Barentine is the Principal Consultant at Dark Sky Consulting, LLC, and was formerly the Director of Public Policy for the International Dark-Sky Association. He earned a Ph.D. in astronomy from the University of Texas at Austin, and previously held staff positions at the National Solar Observatory, Apache Point Observatory, and the Sloan Digital Sky Survey. Throughout his career, he has been involved in educating the public about science. He is a member of the American Astronomical Society and the International Astronomical Union, and is a Fellow of the Royal Astronomical Society. The asteroid (14505) Barentine is named in his honor. His interests outside of astronomy and light pollution research include history, art and architecture, politics, law and current events.

# SONORAN STARRY NIGHTS

## PRESIDENTS NOTES

Greetings everyone,

We will continue our live/ZOOM hybrid meetings at the La Posada Rec Center.

We had another good turnout at our October club star party at Canoa Preserve Park. Unfortunately, the skies did not cooperate as clouds moved in from the east and decided to park over us.

The Tucson astronomy club is picking up most of the public star parties we used to do, but they can have difficulty getting people this far south. Canoa Ranch will be holding numerous star parties. I would like to know if anyone would like to volunteer to assist TAAA. Please contact me if you think you could contribute.

Public star parties are now beginning. We had a great event last October 21<sup>st</sup> at Historic Canoa Ranch. A big crowd attended (over 50 people). The Moon was at first quarter, but it did not interfere too much with our observing. There are no public star parties currently scheduled for November.

We are still looking for someone to step into the president's position. I won't live forever. To keep this club viable, we need people to step up and help out. Otherwise, it will not last.

**Finally be sure to check out our website. Joe has done a great job to keep it relevant.**

Stay safe,

John Dwyer  
President

## MEMBER EQUIPMENT FOR SALE

### For Sale:

Meade 7" Maksutov telescope f/15 \$700 OBO  
This is an OAT with the following accessories included with the telescope:  
-- Losmandy mounting adapter  
-- Meade electronic focuser  
Pick-up in Green Valley, AZ



Contact Steve @ 520-260-1556  
Email to: stadthaus2005@gmail.com

\*\*\*\*\*

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

\*\*\*\*\*

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 on the website Home page yellow banner.**

# SONORAN STARRY NIGHTS

## THE NOVEMBER SKY

### SKY HIGHLIGHTS FOR NOVEMBER

The two big planets are highlighting the evening sky. **Saturn** is now about due south at sunset at a magnitude of about 0.7. **Jupiter** achieves opposition on the 3rd. It glows brilliantly at a magnitude of just under -3. **Mars** will be in conjunction with the Sun on the 18<sup>th</sup> and won't be viewable for a couple of months. **Uranus**, still trailing behind Jupiter, will also reach opposition this month on the 13<sup>th</sup> at magnitude 5.6. **Neptune**, which reached opposition two months ago, sits between Jupiter and Saturn at magnitude 5.6. **Venus**, now in the morning sky, will rise between 3:00 and 3:30am at a magnitude of -4.4. Its diameter continues to shrink (at about 20") as it moves away from us while its percentage of illumination is about 50%. **Mercury** is back in the evening sky but will be fairly low in the southwest sky.

There are three comets under mag 10 now viewable. Comet **103P/Hartley 2**, now located near Hydra, is at about 8<sup>th</sup> magnitude, but will be fading. Comet **2P/Encke**, now moving from Libra into Scorpius, is at about mag 9 this month, but will be rapidly fading thereafter and will be unobservable soon. Comet **C/2023 H2 (Lemmon)**, discovered by our local Mount Lemmon Survey in the Catalina Mountains, is rapidly flying past us as it reached perihelion at the end of October. It will be just under 0.2 a.u. at its closet approach to us on the 11<sup>th</sup> and could reach under 6<sup>th</sup> magnitude by then. It will be located between Hercules and Aquila. At the beginning of the month, it will be in Bootes but by the end of the month it will have dived down south of Aquarius. It will fade rapidly as it moves away from us.

## NOVEMBER MOON/SUN TIMES

DATE	M-Rise	M-Set	M-Phase	Sun-set	Star
Wed 11/01	20:36	10:49		17:34	
Thu 11/02	21:34	11:44		17:34	
Fri 11/03	22:32	12:31		17:33	
Sat 11/04	23:31	13:12		17:32	
Sun 11/05	-----	13:47	3rd Qtr	17:31	
Mon 11/06	0:29	14:16		17:30	
Tue 11/07	1:25	14:43		17:30	
Wed 11/08	2:20	15:09		17:29	
Thu 11/09	3:15	15:34		17:28	S.A.S. SP
Fri 11/10	4:10	15:59		17:27	
Sat 11/11	5:08	16:27		17:27	
Sun 11/12	6:07	16:58		17:26	
Mon 11/13	7:11	17:36	New	17:26	
Tue 11/14	8:17	18:19		17:25	SAS Meeting
Wed 11/15	9:23	19:12		17:24	
Thu 11/16	10:26	20:13		17:24	
Fri 11/17	11:23	21:20		17:23	
Sat 11/18	12:12	22:29		17:23	
Sun 11/19	12:53	23:39		17:23	
Mon 11/20	13:30	-----	1st Qtr	17:22	
Tue 11/21	14:02	0:47		17:22	
Wed 11/22	14:32	1:54		17:21	
Thu 11/23	15:02	2:59		17:21	
Fri 11/24	15:34	4:05		17:21	
Sat 11/25	16:08	5:12		17:21	
Sun 11/26	16:47	6:19		17:20	
Mon 11/27	17:32	7:27	Full	17:20	
Tue 11/28	18:23	8:32		17:20	
Wed 11/29	19:19	9:31		17:20	
Thu 11/30	20:18	10:23		17:20	
					(S)=Solar

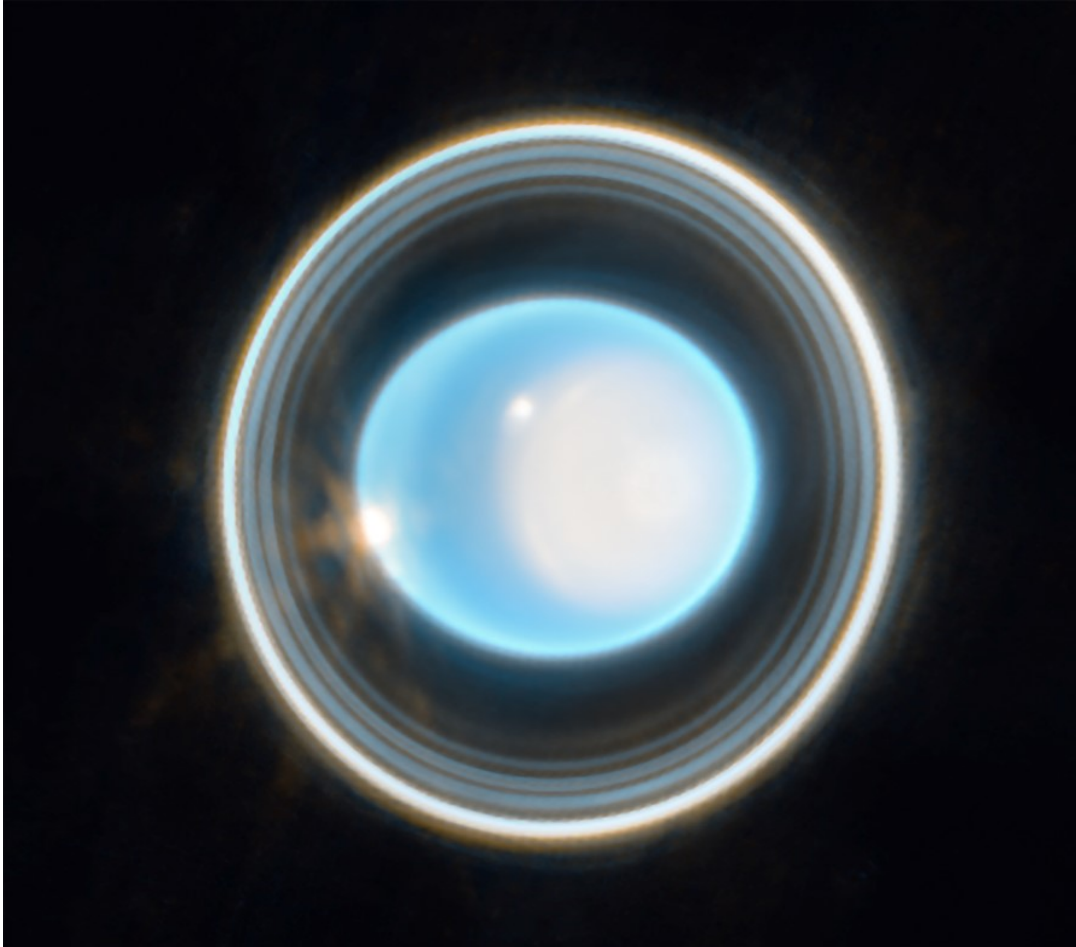
# SONORAN STARRY NIGHTS

## THE STARGAZER'S CORNER:

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

### Spy the Seventh Planet, Uranus

By Liz Kruesi



You might be familiar with Saturn as the solar system's ringed planet, with its enormous amount of dust and ice bits circling the giant planet. But Uranus, the next planet out from the Sun, hosts an impressive ring system as well. The seventh planet was the first discovered telescopically instead of with unaided eyes, and it was astronomer extraordinaire William Herschel who discovered Uranus March 13, 1781. Nearly two centuries passed before an infrared telescope aboard a military cargo aircraft revealed the planet had rings in 1977.

Since that discovery, multiple observatories have revealed more details of Uranus and its ring system. Most recently, the NASA-led JWST space observatory captured the planet and its rings in detail. This recent image combines just 12 minutes of exposure in two filters to reveal 11 of the planet's 13 rings. Even some of the planet's atmospheric features are visible in this image.

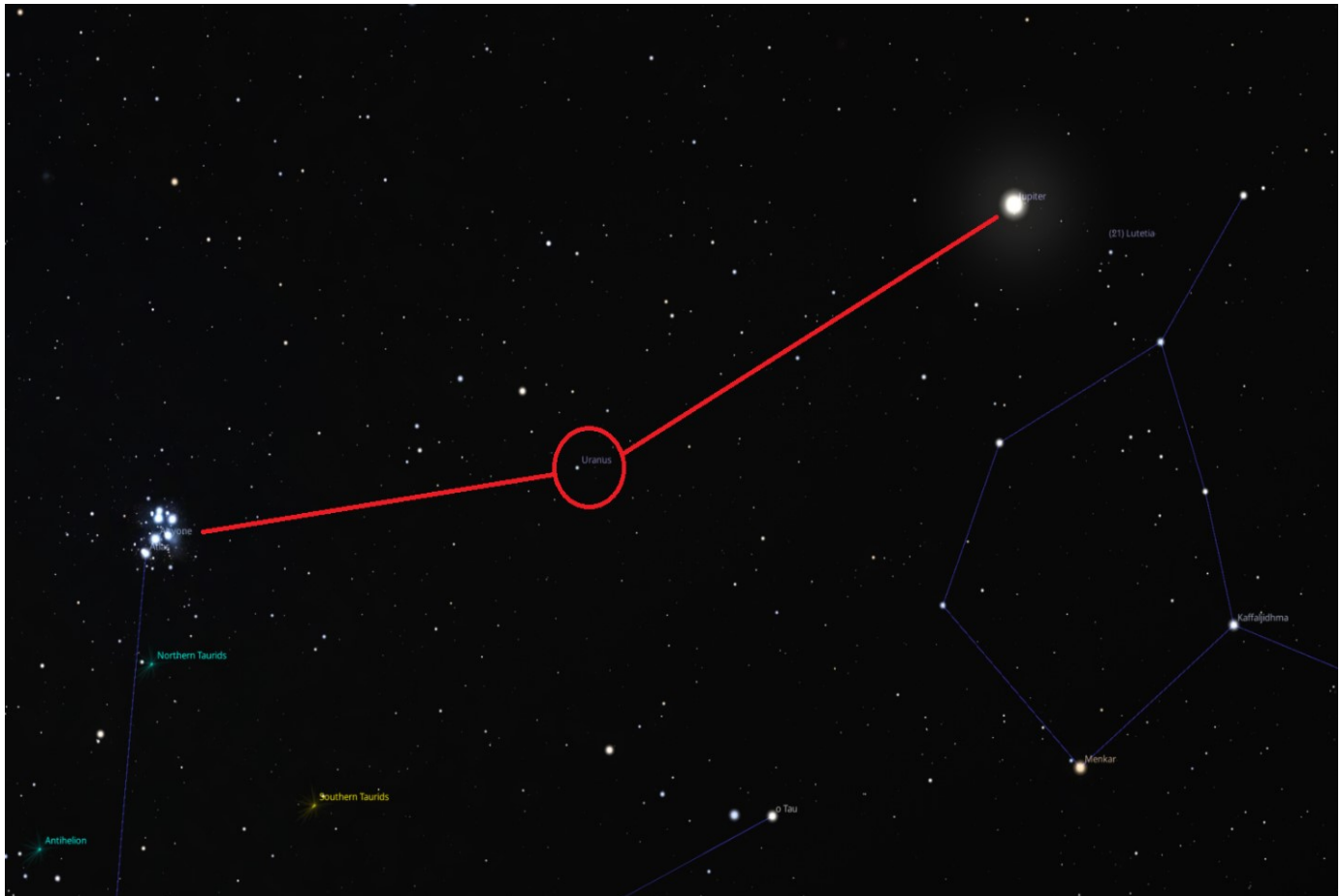
Even with advanced imaging like that from JWST, much of Uranus remains a mystery, including why it orbits the Sun on its side. This is because only one spacecraft has ever visited this planet: NASA's Voyager 2, which flew by the distant planet in the mid-1980s.

<sup>1</sup>For more about the infrared scope, <https://web.archive.org/web/20230429120852/https://www.nasa.gov/vision/universe/watchtheskies/kuiper.html>

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## THE STARGAZER'S CORNER (CONTINUED):

Planetary scientists are hoping to change that soon, though. Scientists recommended in a [report](#) released last year from the National Academies of Sciences, Engineering, and Medicine that Uranus be the focus on the next big planetary science spacecraft mission. Such a large-scale mission would gain insight into this icy giant planet and the similar solar system planet, Neptune.

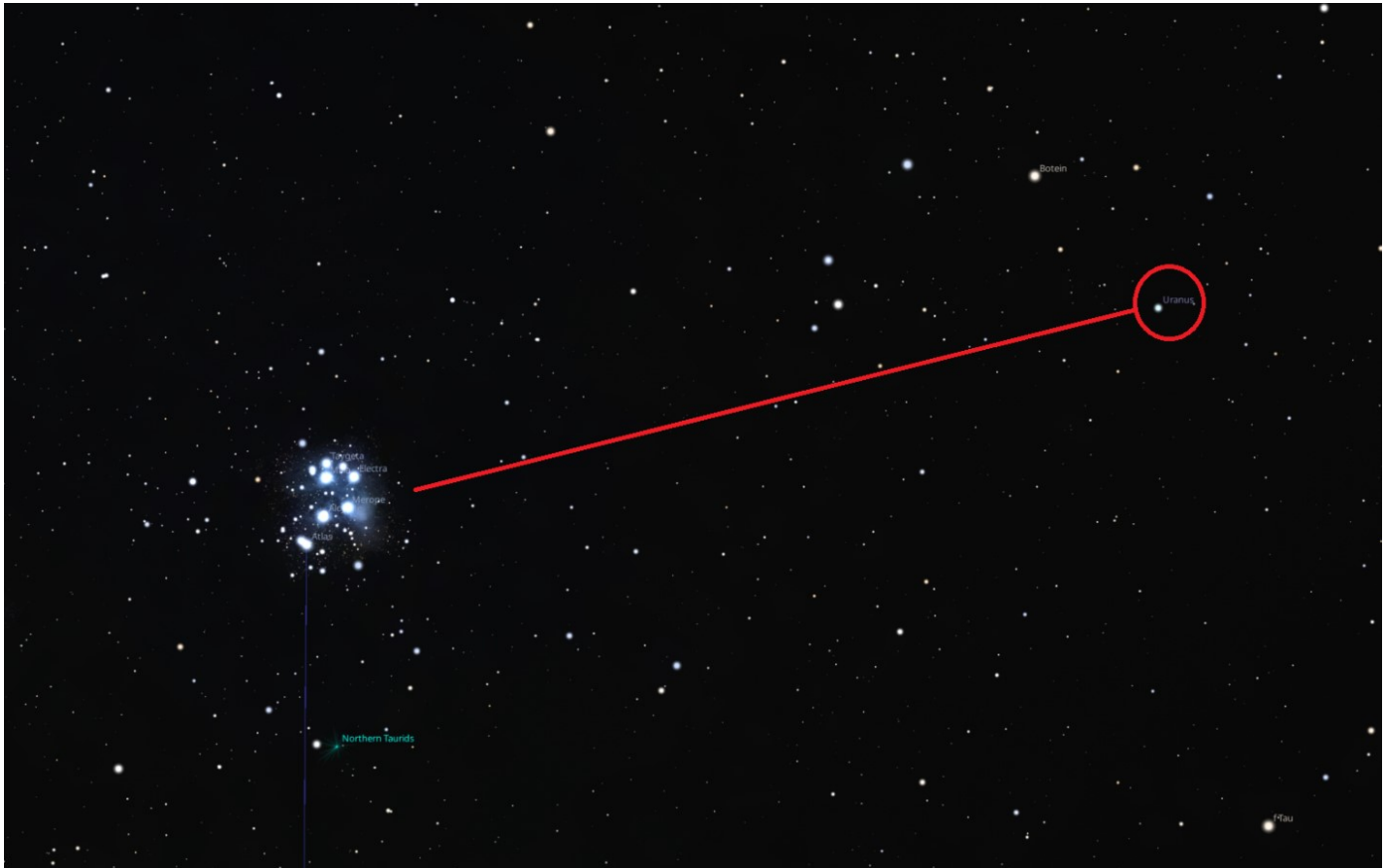


*Sky map picturing M45, Uranus and Jupiter, Stellarium*

If you want to catch a view of Uranus with your own eyes, now is prime time to view it. This ice giant planet lies perfectly positioned in mid-November, at so-called “opposition,” when its position in its orbit places it on the other side of the Sun from Earth. That location means our star’s light reflects off Uranus’ icy atmosphere, and the planet appears as its brightest.

<sup>2</sup>See more about the flyby at <https://www.nasa.gov/history/35-years-ago-voyager-2-explores-uranus/>

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*Sky map picturing M45 and Uranus, Stellarium*

To find it, look overhead just after midnight on November 13. Uranus will lie about halfway between the brilliant planet Jupiter and the diffuse glow of the Pleiades star cluster (M45). While Uranus may look like a bright blinking star in the night sky, its blue-green hue gives away its identity. Binoculars or a telescope will improve the view.

For more about this oddball planet, visit NASA's [Uranus page](#).

Image 1:

Uranus hosts 13 faint rings, 11 of which are visible in this JWST image. The planet was 19.67 times the Earth-Sun distance from our planet (1.83 billion miles) when JWST captured exposures through two near-Infrared filters on February 6, 2023. The white region in the right side of Uranus is one of the planet's polar caps. This icy world orbits the Sun differently from the rest of the solar system's planets – Uranus rolls along on its side. [NASA, ESA, CSA, STScI; Image Processing: Joseph DePasquale (STScI)]

# 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	Duane Johnson	(520) 303-6920
Newsletter Editor	Joe Castor	(620) 584-4454
Webmaster	Joe Castor	(620) 584-4454
ALCOR* (Currently Inactive)	Burley Packwood	(520) 396-3576
NSN** Representative	Duane Johnson	(520) 303-6920
Past President Emeritus	Open	
*Astronomical League		
**Night Sky Network		

### WHY JOIN SAS

1. SAS Family Membership Fee is only \$15.00 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 \$15 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](https://sonoraastronomicalsociety.org)

### SAS STATISTICS & FINANCES

Lifetime Members: 1  
Individual & Family Members: 113  
**Total Membership: 114**

Bank Balance as of September 30: \$1,883.21  
Deposits / (D/Ws): \$60.00 / (\$10.00)  
**Bank Balance as of October 31: \$1,933.21**

# SONORAN STARRY NIGHTS

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?** Please plan to join our monthly meeting of the Sonoran Desert Astro Imagers group. Our meetings focus on improving our skills, helping each other, workshops, and field trips. 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](mailto: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](http://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](http://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.

## OUR SPONSORS

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