



The Sonora Astronomical Society's SONORAN STARRY NIGHTS

JANUARY 2024

January Meeting Details

DATE: Tuesday, January 9th, 2024
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, January 11th, 2024
TIME: 5:30 PM
PLACE: Canoa Preserve Park

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

DATE: Thursday, February 8th, 2024
TIME: 5:45 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: February 13th, 2024
LOCATION: La Posada Rec. Center
TIME: 7:00 P.M. (in person + Zoom)
Speaker: T B A
Subject: T B A

January Presentation

Speaker: Michael E. Bakich

Subject: THE BIG EVENT:
Total Solar Eclipse, April 8, 2024

Abstract:

Get ready for 4½ minutes of darkness — in the middle of the day! On April 8, the path of a total solar eclipse will track from Texas through Maine. And it's not that far from Tucson. But where should we go? What should we look for? And, most importantly, what do the climate statistics say about our plans? Michael Bakich's talk will cover the details about an event that won't happen again in the 48 states until 2044.

Biography:

Michael E. Bakich was Senior Editor of Astronomy magazine for 17 years before retiring in 2019. He and his wife, Holley, then realized their lifelong dream and moved to Tucson. Michael continues work for the magazine as Contributing Editor. He has authored 14 books on astronomy, including Atlas of Solar Eclipses: 2020-2045.

SONORAN STARRY NIGHTS

PRESIDENTS NOTES

Greetings everyone,

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

There were only two of us at our December club star party at Canoa Preserve Park. The skies were great, but it got a bit nippy as the night went on. Joel Hopko got his 10" Meade up and running great now and used his ZWO ASI AIR to generate some great images. If you are a club member who needs a little help with your scope, bring it to the club star party and someone will try to assist you.

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 still ongoing. There will be another public star party on the 20th at Historic Canoa Ranch. TAAA has garnered enough scopes for the event, but you can drop by if you would like.

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.

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

SONORAN STARRY NIGHTS

THE JANUARY SKY

SKY HIGHLIGHTS FOR JANUARY

The two big planets are still highlighting the evening sky. **Saturn** is getting lower in the southwest in the evening sky at sunset at a magnitude of about 0.9. It will be lost behind the Sun by the middle of next month. **Jupiter** is very well positioned for viewing. It glows brilliantly at a magnitude of about -2.5. **Uranus**, still trailing about 12° behind Jupiter, is also well positioned for viewing at magnitude 5.7. **Neptune** is about halfway between Jupiter and Saturn at magnitude 7.9. **Mars** is just emerging from behind the Sun into the morning sky. By the end of the month, it will have reached 20° from the Sun, not a prime viewing position. It will be within .2° of Mercury on the 27th. **Venus**, at mag -4.0, will rise between 4:30 and 5:30am as it moves toward the Sun. By the end of the month, it will be near Mars and Mercury. **Mercury** has returned to the morning sky. It reaches greatest western elongation (24°) from the Sun on the 12th.

There are three comets under mag 10 now viewable. Comet **12P/Pons-Brooks** is a well-known short period comet. But since the summer it has undergone two outbursts which have dramatically increased its magnitude. These outbursts have distorted the comet to give it the appearance of horns sticking out from it resulting in the nickname of the “Devil Comet”. It is currently located in Cygnus at about mag 8 but will be moving quickly to Taurus by April where it is predicted to reach mag 4 or better. Comet **62P/Tsuchinshan 1**, now located Leo at about 8th magnitude, reached perihelion at the end of December. **Comet C/2024 S3 (PanSTARRS)** will reach perihelion in mid-February. It is about 10th mag now and could reach 8th magnitude by then. However, it is very low in the southern sky going from Centaurus to Scorpius by early February.

JANUARY MOON/SUN TIMES

DATE	M-Rise	M-Set	M-Phase	Sun-set	Events
Mon 01/01	22:54	11:11		17:31	
Tue 01/02	23:48	11:36		17:32	
Wed 01/03	-----	12:00	3rd Qtr	17:32	
Thu 01/04	0:42	12:25		17:33	
Fri 01/05	1:38	12:53		17:34	
Sat 01/06	2:37	13:24		17:35	
Sun 01/07	3:40	14:01		17:35	
Mon 01/08	4:46	14:47		17:36	
Tue 01/09	5:53	15:42		17:37	SAS Meeting
Wed 01/10	6:57	16:47		17:38	
Thu 01/11	7:55	17:58	New	17:39	S.A.S. SP
Fri 01/12	8:45	19:13		17:40	
Sat 01/13	9:28	20:25		17:41	
Sun 01/14	10:04	21:36		17:41	
Mon 01/15	10:36	22:44		17:42	
Tue 01/16	11:07	23:50		17:43	
Wed 01/17	11:37	-----	1st Qtr	17:44	
Thu 01/18	12:09	0:55		17:45	
Fri 01/19	12:44	2:00		17:46	
Sat 01/20	13:24	3:06		17:47	Canoa Ranch
Sun 01/21	14:08	4:10		17:48	
Mon 01/22	15:00	5:11		17:49	
Tue 01/23	15:56	6:07		17:50	
Wed 01/24	16:55	6:56		17:50	
Thu 01/25	17:55	7:39	Full	17:51	
Fri 01/26	18:54	8:14		17:52	
Sat 01/27	19:51	8:45		17:53	
Sun 01/28	20:46	9:12		17:54	
Mon 01/29	21:40	9:38		17:55	
Tue 01/30	22:33	10:02		17:56	
Wed 01/31	23:28	10:26		17:57	

(S)=Solar

SONORAN STARRY NIGHTS

THE STARGAZER'S CORNER:

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

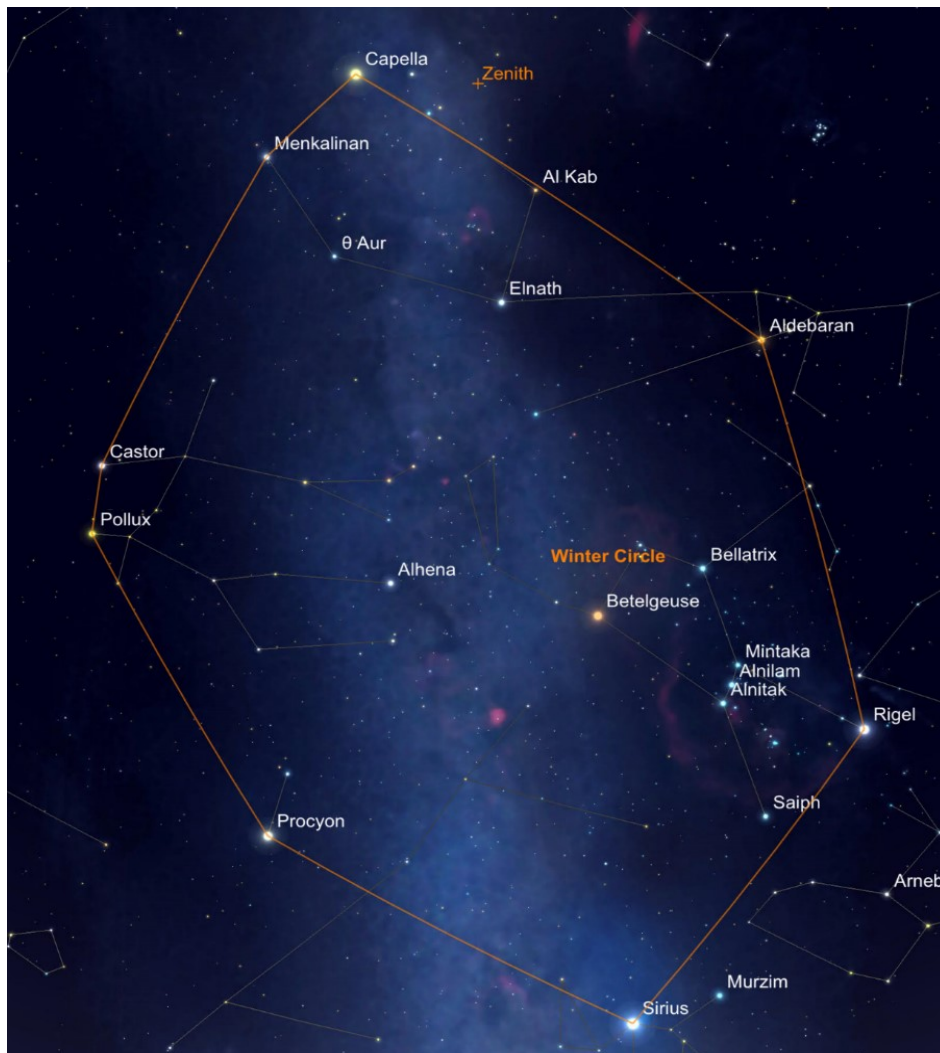
Connecting the 'Dots' with Asterisms

Night Sjs Notes January 2024 By Kat Troche

In our [December Night Sky Notes](#), we mentioned that the Orion constellation has a distinct hourglass shape that makes it easy to spot in the night sky. But what if we told you that this is not the complete constellation, but rather, an *asterism*?

An asterism is a pattern of stars in the night sky, forming shapes that make picking out constellations easy. Cultures throughout history have created these patterns as part of storytelling, honoring ancestors, and time-keeping. Orion's hourglass is just one of many examples of this, but did you know Orion's brightest knee is part of another asterism that spans six constellations, weaving together the Winter night sky? Many asterisms feature bright stars that are easily visible to the naked eye. Identify these key stars, and then connect the dots to reveal the shape.

Asterisms Through the Seasons



Stars that make up the Winter Circle, as seen on January 1, 2024
Sky Safari

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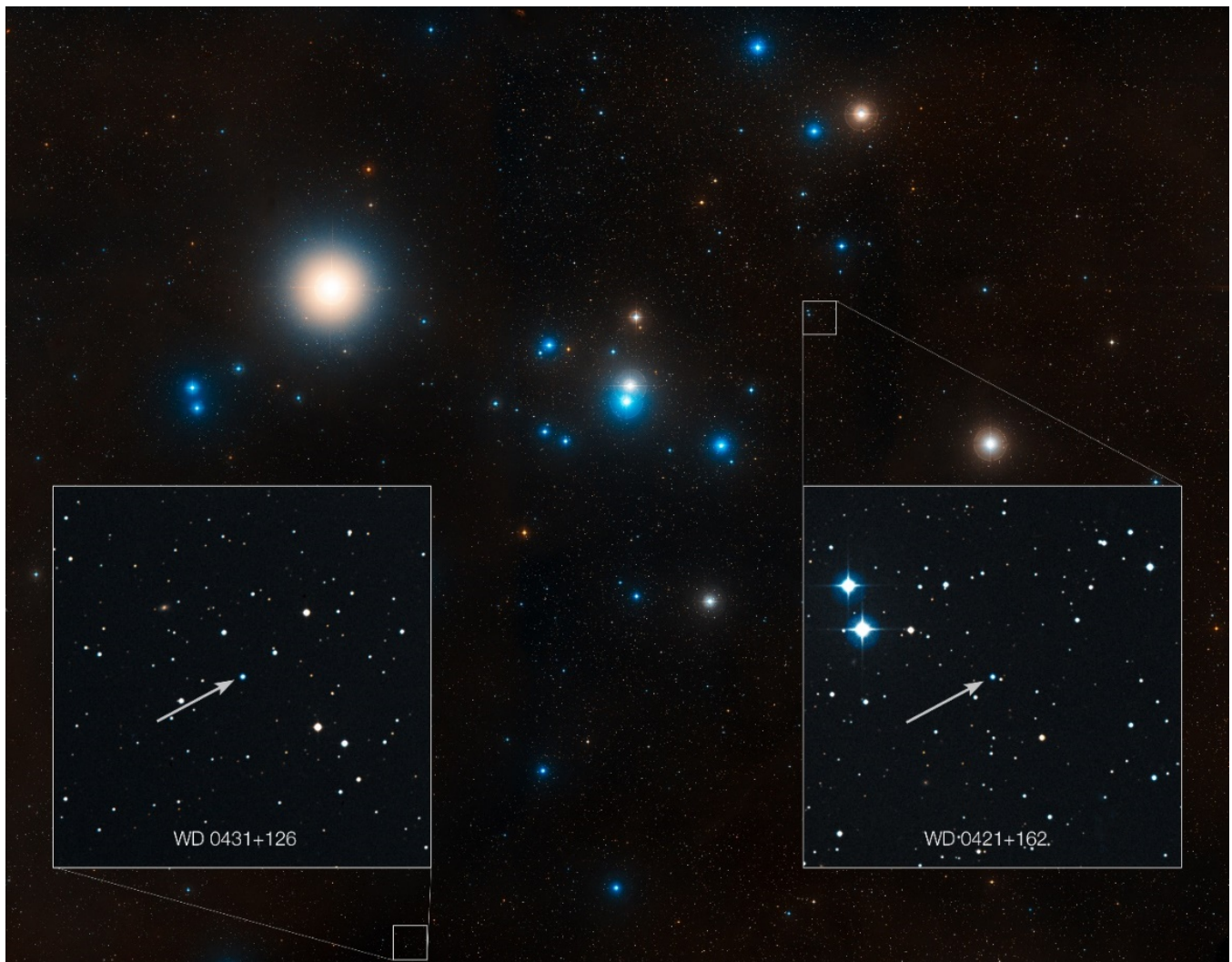
Try looking for these asterisms this season and beyond:

Winter Circle – this asterism, also known as the Winter Hexagon, makes up a large portion of the Winter sky using stars Rigel, Aldebaran, Capella, Pollux, Procyon, and Sirius as its points. Similarly, the **Winter Triangle** can be found using Procyon, Sirius, and Betelgeuse as points. **Orion's Belt** is also considered an asterism.

Diamond of Virgo – this springtime asterism consists of the following stars: Arcturus, in the constellation Boötes; Cor Caroli, in Canes Venatici; Denebola in Leo, and Spica in Virgo. Sparkling at the center of this diamond is the bright cluster **Coma Berenices**, or Bernice's Hair – an ancient asterism turned constellation!

Summer Triangle – as the nights warm up, the Summer Triangle dominates the heavens. Comprising the bright stars Vega in Lyra, Deneb in Cygnus, and Altair in Aquila, this prominent asterism is the inspiration behind the cultural festival [Tanabata](#). Also found is Cygnus the Swan, which makes up the **Northern Cross** asterism.

Great Square of Pegasus – by Autumn, the Great Square of Pegasus can be seen. This square-shaped asterism takes up a large portion of the sky, and consists of the stars: Scheat, Alpheratz, Markab and Algenib.



NASA, ESA, STScI, and Z. Levay (STScI)

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THE STARGAZER'S CORNER (CONTINUED):

This image (previous page) shows the region around the Hyades star cluster, the nearest open cluster to us. The Hyades cluster is very well-studied due to its location, but previous searches for planets have produced only one. A new study led by Jay Farihi of the University of Cambridge, UK, has now found the atmospheres of two burnt-out stars in this cluster — known as white dwarfs — to be “polluted” by rocky debris circling the star. Inset, the locations of these white dwarf stars are indicated — stars known as WD 0421+162, and WD 0431+126.

Tracing these outlines can guide you to objects like galaxies and star clusters. The Hyades, for example, is an open star cluster in the Taurus constellation with [evidence of rocky planetary debris](#). In 2013, Hubble Space Telescope’s [Cosmic Origins Spectrograph](#) was responsible for breaking down light into individual components. This observation detected low levels of carbon and silicon – a major chemical for planetary bodies. The Hyades can be found just outside the Winter Circle and is a favorite of both amateur and professional astronomers alike.

How to Spot Asterisms

Use Star Maps and Star Apps – Using star maps or stargazing apps can help familiarize yourself with the constellations and asterisms of the night sky.

Get Familiar with Constellations – Learning the major constellations and their broader shapes visible each season will make spotting asterisms easier.

Use Celestial Landmarks – Orient yourself by using bright stars, or recognizable constellations. This will help you navigate the night sky and pinpoint specific asterisms. Vega in the Lyra constellation is a great example of this.

Learn more about how to stay warm while observing this Winter with our upcoming mid-month article on the [Night Sky Network page](#) through NASA's website!

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	(620) 584-4454
Webmaster	Joe Castor	(620) 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 \$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: 112
Total Membership: 113

Bank Balance as of November 30: \$2,008.21
 Deposits / (D/Ws): \$124.00 / (\$210.00)
Bank Balance as of December 31: \$ 1,922.21

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. 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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