

The Sonora Astronomical Society's **SONORAN STARRY NIGHTS**

JANUARY 2026

January Meeting Details

DATE: Saturday, January 17th, 2026
MEETING TIME: 2:30 PM (2:00 access)
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

Next Member Star Parties

DATE: Thursday, January 16th, 2025
TIME: 5:30 PM *NEW LOCATION*
PLACE: Madera Canyon Parking Lot
(300 ft past 9 mile marker, Madera Canyon Rd)

- LOOKING AHEAD -
THE FOLLOWING STAR PARTY WILL BE:
DATE: Thursday, February 19th, 2026
TIME: 6:00 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.

UPCOMING EVENTS

NEXT CLUB MEETING

DATE: Saturday February 21st, 2026
LOCATION: Sahuarita Library & Zoom
TIME: 2:30 PM (in person + Zoom)
Speaker: T B A
Subject: T B A

January Presentation

Speaker: Speaker and topic will be announced at the meeting.

Subject: The presentation will be an interesting astronomy-based video followed by a round table discussion.

Abstract: .

Biography:

WHAT'S NEXT?

NASA has several inactive with its outreach activities. The YouTube channel holds many interesting current and past videos to watch.

NASA's Night Sky Network has a live YouTube Webinar each month (and a video that can be viewed if you missed the live presentation) featuring an interesting array of subjects.

The **January 28th, 6PM PST (7PM MST)** presentation will be:

From Data to Discovery: Communicating PACE Science with **Carina Poulin.**

Viewing of and details on this presentation are on YouTube by clicking:

<https://www.youtube.com/@NASANightSkyNetwork>

Then look for the presentation (should be first shown).

SONORAN STARRY NIGHTS

PRESIDENTS NOTES

Greetings everyone,

Our January meeting will take place on January 17th 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. If anyone has any suggestions for meeting presentations or knows someone we can bring in for a presentation, please let me know.

Our December club star party was clouded out.

There are two public star parties this month. Friday January 9th at Historic Canoa Ranch in Green Valley and Tumacacori National Historical Park on the 10th.

We no longer have access to Canoa Preserve Park for our club star parties. We are now using our new site which is on the way up to Madera Canyon. There is a map to our new site available on our website. Our December club star party is scheduled for the 18th. Again, check our website for details. If you have any questions about the site, let me know.

Stay safe,

John Dwyer
President

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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.

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!

SONORAN STARRY NIGHTS

THE JANUARY SKY

SKY HIGHLIGHTS FOR JANUARY

The evening night sky still has a good number of planets this month. **Saturn** is just west of south when the Sun sets. Its ring system

is close to edge-on now. **Neptune** is now about 3 degrees behind Saturn. **Mars** reaches conjunction with the Sun on the 9th and is not visible. **Jupiter** reaches opposition on the 10th and will be visible all evening. **Uranus** is high in the eastern sky at sunset and will be visible most of the evening. **Venus** will be too close to the Sun for viewing as it reaches superior conjunction on the 6th. **Mercury** moves sunward in the morning sky and will be too close to the Sun to be visible. It reaches superior conjunction on the 21st.

The visibility of comets is very slim this month. Comet 24P/Schaumasse is barely under 10th magnitude located in Virgo. That is about the only decent one visible.

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.

JANUARY MOON/SUN TIMES

DATE	M-Rise	M-Set	M-Phase	Sun-set	Star Party
Thu 01/01	15:38	5:46		17:31	
Fri 01/02	16:46	6:55		17:32	
Sat 01/03	17:59	7:55	Full	17:32	
Sun 01/04	19:12	8:45		17:33	
Mon 01/05	20:22	9:25		17:34	
Tue 01/06	21:26	9:59		17:35	
Wed 01/07	22:28	10:29		17:36	
Thu 01/08	23:26	10:56		17:36	
Fri 01/09	-----	11:22		17:37	
Sat 01/10	0:23	11:48	3rd Qtr	17:38	
Sun 01/11	1:20	12:16		17:39	
Mon 01/12	2:17	12:47		17:40	
Tue 01/13	3:15	13:22		17:41	
Wed 01/14	4:12	14:03		17:42	
Thu 01/15	5:09	14:51		17:42	S.A.S. SP
Fri 01/16	6:02	15:45		17:43	
Sat 01/17	6:51	16:43		17:44	SAS Meeting
Sun 01/18	7:34	17:44	New	17:45	
Mon 01/19	8:11	18:47		17:46	
Tue 01/20	8:44	19:49		17:47	
Wed 01/21	9:14	20:50		17:48	
Thu 01/22	9:42	21:52		17:49	
Fri 01/23	10:10	22:54		17:50	
Sat 01/24	10:39	23:59		17:51	
Sun 01/25	11:11	-----	1st Qtr	17:52	
Mon 01/26	11:47	1:06		17:53	
Tue 01/27	12:31	2:16		17:53	
Wed 01/28	13:23	3:28		17:54	
Thu 01/29	14:26	4:37		17:55	
Fri 01/30	15:35	5:40		17:56	
Sat 01/31	16:47	6:33		17:57	

(S)=Solar

SONORAN STARRY NIGHTS

THE STARGAZER'S CORNER:



This article made available by NASA

Credits: NASA/Morgan Johnson

NASA's Wideband Technology Demo Proves Space Missions are Free to Roam

Just like your cellphone stays connected by roaming between networks, NASA's Polylingual Experimental Terminal, or [PEXT](#), technology demonstration is proving space missions can do the same by switching seamlessly between government and commercial communications networks.

NASA missions rely on critical data to navigate, monitor spacecraft health, and transmit scientific information back to Earth, and this game-changing technology could provide multiple benefits to government and commercial missions by enabling more reliable communications with fewer data interruptions.

"This mission has reshaped what's possible for NASA and the U.S. satellite communications industry" said Kevin Coggins, deputy associate administrator for the agency's [SCaN](#) (Space Communications and Navigation) Program at NASA Headquarters in Washington. "PEXT demonstrated that interoperability between government and commercial networks is possible near-Earth, and we're not stopping there. The success of our commercial space partnerships is clear, and we'll continue to carry that momentum forward as we expand these capabilities to the Moon and Mars."

"This mission has reshaped what's possible for NASA and the U.S. satellite communications industry."

KEVIN COGGINS, Deputy Associate Administrator for SCaN

Wideband technology [enables data exchange](#) across a broad range of frequencies, helping bridge government and commercial networks as NASA advances commercialization of space communications. By providing interoperability between government and commercial assets, this technology unlocks new advantages not currently available to agency missions.

As commercial providers continue to advance their technology and add new capabilities to their networks, missions equipped with wideband terminals can integrate these enhancements even after launch and during active operations. The technology also supports NASA's network integrity by allowing missions to seamlessly switch back and forth between providers if one network faces critical disruptions that would otherwise interfere with timely communications.



An artist's concept of the BARD mission in space. NASA/Dave Ryan

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THE STARGAZER’S CORNER (CONTINUED):

“Today, we take seamless cellphone roaming for granted, but in the early days of mobile phones, our devices only worked on one network,” said Greg Heckler, SCan’s capability development lead at NASA Headquarters. “Our spaceflight missions faced similar limitations—until now. These revolutionary tests prove wideband terminals can connect spacecraft to multiple networks, a huge benefit for early adopter missions transitioning to commercial services in the 2030s.”

On July 23, the communications demo launched into low Earth orbit aboard the York Space Systems’ BARD mission. Designed by Johns Hopkins Applied Physics Laboratory, the compact wideband terminal communicates over a broad range of the Ka-band frequency, which is commonly used by NASA missions and commercial providers. After completing [a series of tests](#) that proved the BARD spacecraft and the demonstration payload were functioning as expected, testing kicked off with NASA’s [TDRS](#) (Tracking and Data Relay Satellite) fleet and commercial satellite networks operated by SES Space & Defense and Viasat.

During each demonstration, the terminal completed critical space communications and navigation operations, ranging from real-time spacecraft tracking and mission commands to high-rate data delivery. By showcasing end-to-end services between the BARD spacecraft, multiple commercial satellites, and mission control on Earth, the wideband terminal showed future NASA missions could become interoperable with government and commercial infrastructure.



An artist’s concept of the Polylingual Experimental Terminal transmitting data in space. NASA/Morgan Johnson

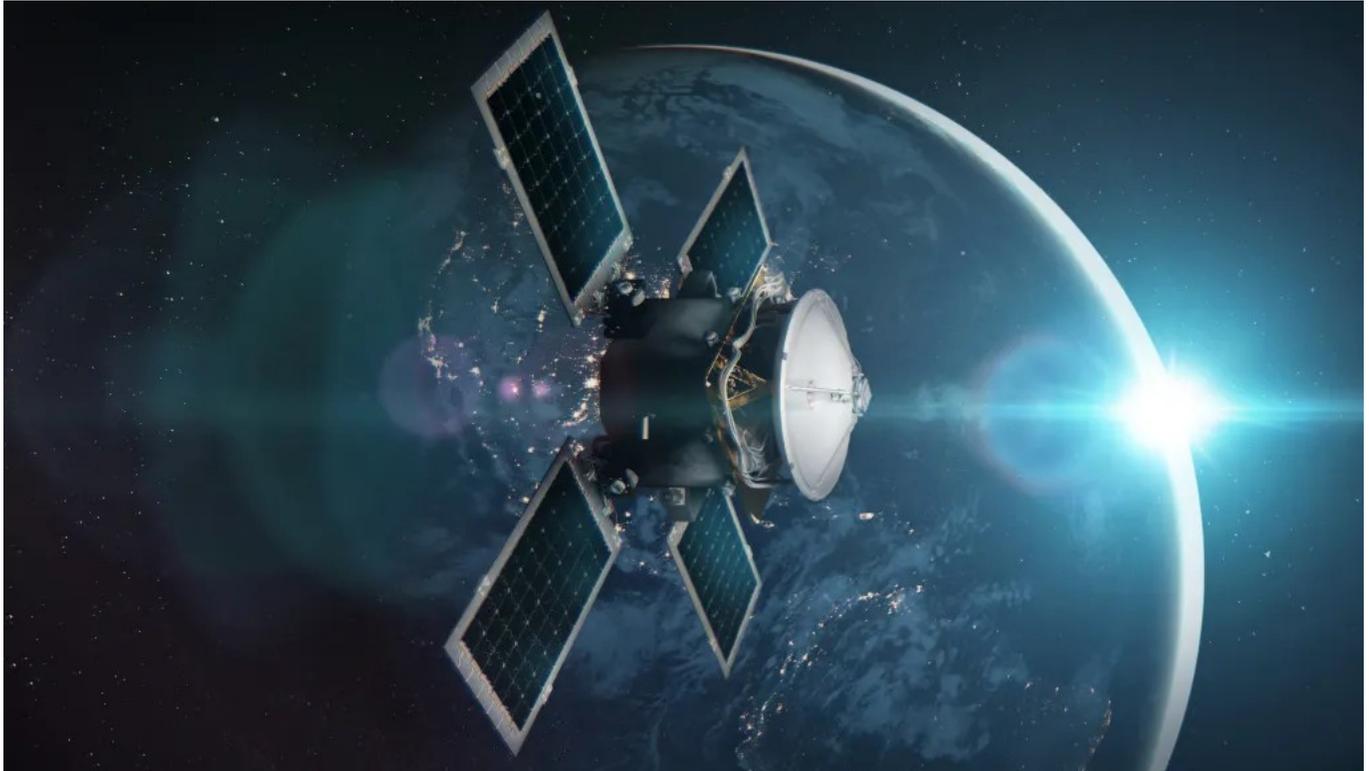
Due to the flexibility of wideband technology and the innovative nature of this mission, NASA recently extended the Polylingual Experiment Terminal demonstration for an additional 12 months of testing. Extended mission operations will include new direct-to-Earth tests with the Swedish Space Corporation, scheduled to begin in early 2026. This technology demonstration will continue testing spaceflight communications capabilities through April 2027. By 2031, NASA plans to purchase satellite relay services for science missions in low Earth orbit from one or more U.S. companies.

To learn more about this wideband technology demonstration visit: [PEXT – NASA](#)

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THE STARGAZER'S CORNER (CONTINUED):

The Polylingual Experimental Terminal technology demonstration is funded and managed by NASA's SCaN Program within the Space Operations Mission Directorate at NASA Headquarters in Washington. York Space Systems provided the host spacecraft. Johns Hopkins Applied Physics Laboratory developed the demonstration payload. Commercial satellite relay demonstrations were conducted in partnership with SES Space & Defense and Viasat.



An artist's concept of the BARD mission in space. NASA/Dave Ryan

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 \$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](https://sonoraastronomicalsociety.org)

SAS STATISTICS & FINANCES

Lifetime Members: 1
 Individual & Family Members: 100
Total Membership: 101

Bank Balance as of Nov 30 \$ 1,525.96
 Deposits / (D/Ws): \$ 75.00 / (\$ 192.00)
Bank Balance as of Dec 31: \$1,408.96

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? 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 lp41astro@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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