TAAA Desert Skies Bulletin

Observing Our Desert Skies Since 1954

February 2026

www.tucsonastronomy.org

Membership Meeting

Friday, February 6, 2026 6:30PM

TAAA's next general member meeting will be held on **Friday, February 6, 2026**. The Main Presentation will start at 6:30 PM. This will be a hybrid meeting (both in person and on social media). TAAA members will receive a Zoom link should they wish to attend remotely. The public may attend in person at the **Steward Observatory Lecture Hall (Rm N210), 933 N Cherry Ave, Tucson,** or stream from the TAAA YouTube page.

Inside this issue:

Main Presentation at 6:30PM AZT

Title: **NASA's Europa Clipper Mission: On the Way to Explore Ocean World Habitability**

Presentation: Dr. Robert Pappalardo, Project Scientist for the Europa Clipper Mission, gives this month's featured talk. In his words: "On October 14, 2024, NASA's Europa Clipper spacecraft launched on its journey to Jupiter's moon Europa, an icy world believed to harbor a global subsurface ocean. Observations from the Galileo mission revealed Europa to have a relatively young and deformed ice surface. An induced magnetic field implies the presence of a salty ocean beneath the ice. Tidal forces from Jupiter fracture the ice shell into ridges, bands, and chaotic terrains, suggesting ice mobility and possible local melting. Earth- and space-based telescopes suggest the presence of plumes that may vent interior water vapor into space. Europa may contain the key ingredients necessary for life—liquid water, bioessential elements, chemical energy, and long-term stability—making it a compelling target for investigation of ocean world habitability.

The Europa Clipper mission will address Europa's habitability using an advanced suite of remote-sensing and in-situ instruments that probe the moon's interior, composition, and geology, while also searching for present-day activity such as plumes. During its 5.5-year cruise to Jupiter, the mission is maturing operations concepts and validating instrument performance, including through flyby observations of Mars, Earth, and interstellar comet 3I/ATLAS. After entering Jupiter orbit in 2030, the spacecraft will execute 49 close encounters with Europa at altitudes of typically 25–100 km above the surface, enabling unprecedented observations of this ocean world."

Dr. Pappalardo's presentation will summarize our current understanding of Europa, describe how Europa Clipper is designed to investigate its habitability, and provide an update on mission status as the spacecraft continues its journey to the Jovian system.

Biography: Dr. Robert Pappalardo is a JPL Fellow and Senior Research Scientist, and the

Project Scientist for NASA's Europa Clipper Mission at the Jet Propulsion Laboratory, California Institute of Technology. He has also served as the Project Scientist for the first extended mission of the Cassini spacecraft at Saturn, for which he received NASA's Exceptional Service Medal. He received his B.A. in Geological Sciences from Cornell University in 1986, and he obtained his Ph.D. in Geology from Arizona State University in 1994. His research focuses on processes that have shaped the icy satellites of the outer solar system, especially Europa and the role of its probable subsurface ocean. He has co-authored over 150 peer-reviewed journal papers and book chapters, and he served as the chief editor of the University of Arizona Press book Europa. Through the years, Pappalardo has mentored students and post-docs, and he has worked with various science museums and organizations to bring the excitement of astronomy and planetary exploration to the public.

Dr. Robert Pappalardo, Project Scientist for NASA's Europa Clipper Mission.
Credit: Johns Hopkins Univ. Applied Physics Lab.

Outreach Awards: TAAA started an Outreach Award Program with data going back to 2014 to recognize members' support of the Outreach Program. The first round of awards was handed out at the January meeting (picture above). **We encourage members supporting the Outreach Program with at least 25 hours (and have not received your award) to attend the February TAAA Meeting.** We will distribute any remaining awards then. THANK YOU to all members supporting the Public/School, Starry Messengers, and the Tucson Stargazing Adventures Outreach programs.

Desert Skies Bulletin
Contributions to Editor: David Rossetter by the 24th.
Astro-Images to our Image Editor: Gregg Ruppel
Proofreaders: Terri Lappin, Jeff Rothstein, Jim Knoll

Notes From The President

February 2026

by Ed Foley

This past January new moon weekend, I had the opportunity to visit our Chiricahua Astronomy Complex (CAC) dark site to take part in a number of activities. As usual, the site was a beehive of activity that Saturday. The sleeping rooms were full, the public pads each had telescopes and members on them, a number of the member leased pads were ready for the evening, there were RVs in their parking lot, and a tent was set up in the camping area with a C8 poised next to it. Members were busy in the Reynolds Mitchell Observatory warm room and the Margaret Mooney classroom at mealtime, preparing food and chatting. It's like a little town come alive this time of the month. The site looks great. The CAC team has done a wonderful job of keeping up with the site demands. This level of use requires a lot of attention to keep all in good order.

I had a chance to talk to many members, some there for the first time and some regular attendees with years of enjoying the site. Whether we were raking the member pad area to get it ready to be graveled next month, or doing regular maintenance, members were joining in making the tasks go quicker. As the conversations went on, I found quite a few members anxiously awaiting the time we will allow general use of the new B. G. Stinger Observatory. I explained that the new .8-meter research grade telescope has moved from a construction project to now being a completed observatory managed by the CAC team. A small CAC working group is assembling and testing the procedures TAAA will use to train members on the use of the observatory. While the operation of the telescope is not technically complex (when all is working correctly), there are quite a few steps to ensure this large instrument is used safely. I expect the shake out of the training will still take a few weeks and then member training can commence.
I have also been asked by those following the story from the early days in 2023 when we laid out the initial plans, "When are we going to convert the telescope to an F/3.1 prime focus imaging system?" Well, yes that is part of our plans for consideration. However, as we originally laid out ideas for its use, we first were to install the telescope as it was donated. We will have members put the telescope through its paces and enjoy its capabilities at f/13. The objects that will be ideal to view and capture are going to be different than other instruments on the site. We have borrowed some 3" optics for visual observers and received the donation of a 3", .7 focal reducer for imagers to use in the short term. We will be evaluating the telescope's utility in the next year, as members have a chance to use it, and then consider its future.

Ed

President: Ed Foley
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TAAA Board: taaabod@tucsonastronomy.org

The TAAA Board of Directors meets the second Wednesday of every month at 6:30pm. Members are welcome to attend Board meetings. If you would like to attend, you may email Ed Foley to receive a Zoom link for that meeting. Please send your email to Ed by the Monday prior to the meeting (by 5:00pm) and you will receive an email with the link on either Tuesday evening or Wednesday. ALL MEMBERS ARE WELCOME.

Astronomical League Observing Awards for January 2026

by Doug Smith

Below is a list of Astronomical League members who earned AL Observing awards during the month of January 2026:

Christian Weiss – Flat Galaxy Observing Program (Gold)
Christian Weiss – Double Star Observing Program
Christian Weiss – Caldwell Observing Program (Gold)

The NVRC is seeking potential candidates for elected leader positions this upcoming May. Positions to be voted on include Secretary, Treasurer, two Board Members-At-Large and two members of the NVRC; all are two-year terms that will commence June 1, 2026.

The TAAA Board of Directors is also looking to ramp up member recognition and service awards. As a result, they have asked the Nominating and Volunteer Resource Committee to look for an experienced association member to head up the Recognition Committee. This person should be familiar with (or willing to research) past awards and have ideas for future recognitions. They will need to track past records and work with the committee to determine future awardees. The Recognition Committee already exists. They have met and recorded some ideas of how to move forward. As might be expected, they are some of the busier leaders in the club. They are looking for someone to head the committee's efforts.

Members may review both elected and appointed leader position descriptions through their Member Planet accounts. From the main Tucson Amateur Astronomy Association web page (https://tucsonastronomy.org) select "Members Only" from the tabs located near the top just below the main search bar; then login with your email/username and password; then scroll down to the 6th item "TAAA Docs and Videos"; select/click, from the "MEMBER ONLY INDEX" page, scroll down, and select/click on the 6th item, HANDBOOKS and REFERENCE MATERIALS; then finally, click or select on a specific "Job Position Descriptions – TAAA Board..." or immediately below, "TAAA Position Descriptions – Leader Descriptions", which are the non-elected volunteer opportunities.

Please contact the NVRC Chair, Pete Hermes, for additional information or if you have questions pertaining to a particular position.

The NVRC encourages **all members to update their MemberPlanet profile** particularly with respect to volunteer positions or activities they may be interested or seek to participate in.

TAAA – GILA Community College Collaboration

Gila Community College AST 231 **Advanced Astronomy Research Seminar** Section 80187
In-person **Apr 5-9, 2026**, Chiricahua Astronomy Complex (CAC), Southeast Arizona

Gila Community College AST 231 **Advanced Astronomy Research Seminar** Section 80192
Four online Zoom sessions, every Wed 7:00 PM MST Apr 15-May 6
In-person **Fri-Sun, Apr 17-19, 2026**, Tucson, Arizona

These two seminars are available to TAAA members at low or no cost. Gila Community College (GCC) features low tuition rates. Tuition for these two-credit classes for Arizona residents is $196 for attendees younger than 55 years of age, and $0 for attendees 55 and older.

Short Summary: Gila Community College is offering two late-spring Binary Discovery Research Seminars. You can enroll in either one or both seminars.

The first seminar, all in-person, will observe dozens of Gaia two-parameter (G2P) stars, most of which will turn out to be new binary star discoveries. These observations will be made on the 0.8-meter DFM Engineering research telescope at the Chiricahua Astronomy Complex (CAC) in southeast Arizona. The second, hybrid seminar will reduce and analyze the observations from the first seminar and write them up in a draft paper.

The second seminar consists of four Zoom sessions and a three-day in-person session in Tucson that will feature a tour of the Caris Mirror Lab at the University of Arizona, lectures and work on the paper at the El Conquistador, a daytime insider-tour of the telescopes at Kitt Peak National Observatory (KPNO), and evening telescope observations at KPNO.

Seminar participants will be a mix of new and seasoned researchers. The seminar will be conducted within a larger community of practice, follow the normal rules of scientific research, and stress teamwork to produce a peer-reviewed paper.

Registration for the Seminars: Gila Community College has an open registration policy, so anyone 18 or over can register for the seminars. Please email the GCC Instructor, Russell Genet, and let him know that you would like to attend the seminar. He will ask the GCC Registrar to place you on the instructor-approved list.

For more information about the seminars see the details at this link

by Doug Smith

Workshop Schedule for Spring 2026 Set

Enrollment Open!

To enroll (or questions), contact the instructor: Douglas Smith 520-396-3233

Constellation Locating and Identification Workshop

Place: TIMPA; *Date:* Thursday, March 12, 2026; *Time:* 6:00 PM until completed

Synopsis: This is a workshop in the Practical Astronomy Workshop series. The students will be taught how to locate and identify the constellations without having to memorize the night sky. Each student will learn to use a supplied planisphere and star atlas to locate several constellations. This program provides the methodology for the observing requirements of the Astronomical League's Constellation Observing Program (Northern and Southern).

PLEASE NOTE: due to equipment limitations there is a limit of 20 students for this workshop.

Learn how to Record Observations and Sketch Objects Workshop

Place: TIMPA; *Date:* Thursday, April 16, 2026; *Time:* 6:00 PM until completed

Synopsis: This is workshop in the Practical Hands-on Astronomy Workshop series. Students will learn how to record observations and how to sketch objects. They will be taught proper recording techniques, what information to record, what sort of forms to use, etc. In addition, students will be taught techniques for sketching objects. They will view, using a telescope, several different types of objects and perform recording activities and sketch different objects.

PLEASE NOTE: due to equipment limitations there is a limit of 20 students for this workshop.

Star Hopping Workshop

Place: TIMPA; *Date:* Thursday, March 18, 2026; *Time:* 6:00 PM until completed

Synopsis: This is another workshop in the Practical Astronomy Workshop series. It will teach star hopping. The students will be taught proper star hopping technique and equipment usage. They will use the supplied equipment to locate at least two targets (maybe more if time permits). By the end of the workshop the student will know what equipment to use and how to use it in order to locate targets using star hopping.

PLEASE NOTE: due to equipment limitations there is a limit of 20 students for this workshop.

Grand Canyon Star Party 2026 T-Shirt Design Contest

Purpose: To obtain original designs to be considered for use on the 2026 GCSP T-shirts. Only one design will be selected for the 2026 T-shirt, but any submitted design may be used for a different year in the future or for a different purpose. Once a design is submitted it permanently belongs to TAAA.

Theme: No required theme, anything centering on GCSP.

Status of the Design: The design must be as "ready-to-go" as a completed entity as possible. Please do not send sketches of designs that are in process or designs that require significant further development.

Who May Participate: Anyone. A person submitting a design is not required to be a TAAA member or a GCSP participant. **The winner receives two free T-shirts plus $100.00 and recognition.**

Due Date: **February 1, 2026.**

How to submit: email the design, written information about the design, and information about the contributor to Mae Smith at ssmith@email.arizona.edu.

Important Rules:

1. The design and all its parts must be original and copyright free.
2. No material may have advertising anywhere in the design (his includes the TAAA name or logo). This is a National Park requirement and exceptions cannot be made.
3. Submitter gives rights of use for the design to TAAA for the 2026 T-shirts and/or use at a later time on T-shirts, paper, or electronic publication.
4. The design may contain up to four colors.
5. The design must be appropriate for T-shirt use.
6. The 2026 GCSP Committee and/or its designees will have sole responsibility for selection of the winning design, any modifications of that design, the determination of any or all future use of all submitted designs, and the selection of 2026 T-shirts, including color.
7. Any design submitted by a minor must be so indicated and accompanied by written parental permission.
8. No particular format is required. Please remember that when designs are processed and placed on T-shirts or other items, some aspects of the design may be inadvertently distorted or altered in some way or simply may not work in the medium or size we are working with. While our intent is to honor a design and retain its qualities, designers, in submitting, agree to accept changes/modifications.

Book Of The Month Review

by Douglas Smith (TAAA Librarian)

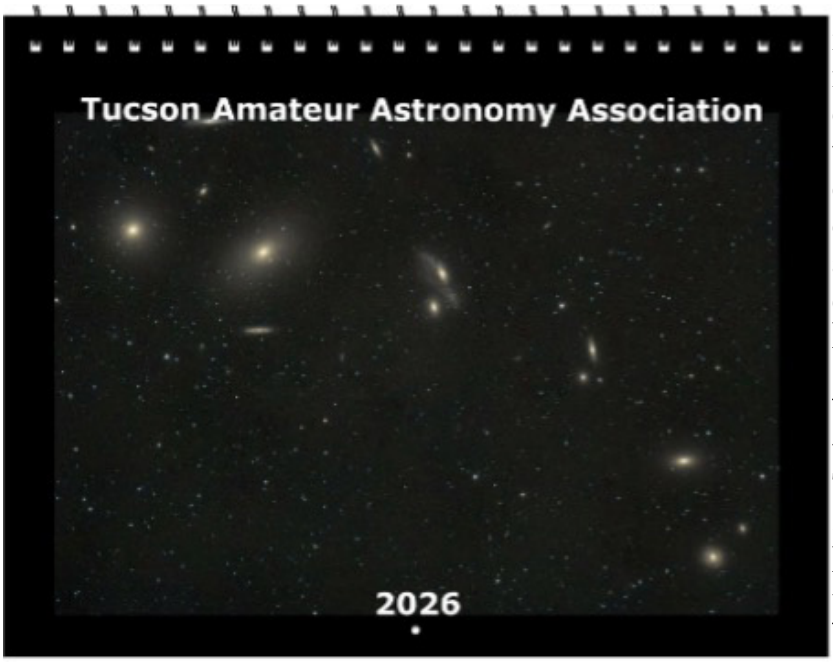
Book: "Exploring Amateur Astronomy – Goal Oriented Observing"
Author: Mike Hotka

The author is a well-known amateur astronomer and very active in the Astronomical League observing programs. He is the program coordinator for several of the programs and has achieved the AL Master Observer Platinum award. This book is a description of how he worked through his various programs and how he developed his goal-oriented methodology for observing. There is a great deal of useful information and numerous tips for the different observing programs.

The book is organized by observing program. He has a section for each observing program he worked on. The programs are divided into major sections based on a level of difficulty. Within these divisions the programs are arranged alphabetically. I would recommend this book for anyone who is planning on being active in the AL observing programs.

This book is available from a variety of sources. It is readily available on e-Bay and Amazon for between $20 and $35.

TAAA Calendar Now Available



They are here! The 2026 TAAA Calendar is available to members. It is packed full of information about TAAA, our events, and significant astronomy events throughout the year. The picture portion of the calendar has been formatted differently to emphasize TAAA events as well as astro-images and to more easily find significant astronomy events happening during the month.

You can order on the website or get them at the Friday General Meetings. The calendars are only $15 each (plus $5 if you want them mailed to you). So, help support our association and get a useful calendar to use throughout 2026. Your support and donation is deeply appreciated.

Only 6 calendars left for sale! *-The Calendar Team*

They will be available at the apparel table during the February General Meeting.

TAAA Ladies' Night Out

by Susan O'Connor

Ladies' Night Out is a social interest group for women members of the club. The group meets once a month at a local restaurant for fellowship and conversation.

Thursday, February 19, 6:30pm

Bistro 44

6762 E Tanque Verde, Suite 2
SW corner of E Tanque Verde & N Camino Principle
Just E of the Pantano Wash

Preview the menu at https://www.bistro44tucson.com/

RSVP Susan 520-780-0136

Observing Sites

TIMPA

by TIMPA Planning Group

TIMPA (Tucson International Modelplex Park Association) is TAAA's dark sky site west of the Tucson Mountains.

Location: The TIMPA observing site is located a few miles beyond the Desert Museum (3250 N. Reservation Road, Tucson, AZ 85743).

TIMPA Star Party Dates this month (Friday - Saturday)

February 13-14
February 20-21

The TIMPA Planning Group will be offering assistance with telescope usage and observing during the monthly TIMPA Star Parties. You are invited to bring your equipment and questions to TIMPA on Star Party dates for assistance. Be sure to register using the link below.

The TIMPA site is only partially improved. There are no inside buildings provided other than restrooms. TAAA provides very limited seating (members are welcome to bring folding chairs). Please note that members visiting the TIMPA site may encounter things commonly found in partially improved desert areas such as desert creatures and/or their remnants (such as rodent holes or ant hills), uneven terrain, weeds, and desert pollens. Members using the site are encouraged to bring red lights and to move cautiously taking appropriate safety measures. The site does not have potable water, so bring your own non-alcoholic drinks.

Reservations for the TIMPA Site are made on the TAAA website at TIMPA DARK SITE RESERVATIONS. Please fill out the form completely and be sure to indicate the date you desire to visit TIMPA.

Questions? Contact the TIMPA Director: Stephen Ferris

Observing Sites' Upcoming Star Party Dates

TIMPA	New Moon	CAC
February 6-7; 13-14; 20-21	February 17	February 13-14
March 13-14; 20-21	March 18	March 20-21
April 10-11; 17-18	April 17	April 17-18
May 8-9; 15-16	May 16	May 15-16
June 5-6; 12-13	June 14	June 12-13

Chiricahua Astronomy Complex

by Jim Knoll

Upcoming CAC Weekend Dates (Friday - Saturday)

February 13-14 (New Moon February 17)

Chiricahua Astronomy Complex (CAC) is the club's eastern dark sky (Bortle 2) observing site, located in Cochise County approximately 100 miles southeast of the center of Tucson. We have many large telescopes iincluding 40-inch, 25-inch and 18-inch Dobsonians, a 9-inch folded refractor, our new 32-inch Cassegrain, and quite a few Schmidt-Cassegrain telescopes (SCTs) of various sizes. The telescopes are configured for either visual observing or imaging.

You can be trained to operate most of these telescopes. To request training, please complete the request form here. We also have ten sleeping rooms with heat and air conditioning, a Learning Center/Classroom, seven RV sites with electricity, and a large tent camping area.

If you would like to observe, you must make a reservation on the CAC Web page at CAC Reservations.

CAC Director: Jim Knoll CAC on the Web

by Bernie Stinger

February 2026 Star Party Volunteer List

Thank you for volunteering your time and talents for our extremely important outreach mission. **Below is the current status of the Public/School Star Party list for Feb. 2026.**

Please let me know via email if you are interested in volunteering for any of the events listed below. First come – first served. I will let you know in return if you are on it or that it was already filled. Some events go fast!.

If you are new to Star Party outreach, let me know and we'll be sure to help you get started. It is important you sign up for star parties if you plan to attend, whether you bring a scope or help in other ways, so I can manage who from TAAA will be on-site and for you to be included in any reminder or weather emails.

The PUBLIC Astronomy Events are also listed on the TAAA (tucsonastronomy.org) and Night Sky Network (NSN) (nightsky.jpl.nasa.gov) calendars. Also, all PUBLIC star parties will be listed on the TAAA Facebook events page and will be updated based on weather, etc. in real-time. You can follow any of these events and get a notification when I update each event but this is only for PUBLIC star parties listed on Facebook.

The requests have been updated as of January 24th. **The first section, in RED, is a list of events where we still need volunteers.** If you can help out please contact me at: astronomy-events@tucsonastronomy.org

Thank you,
Bernie Stinger
TAAA Public/School/Non-Profit Star Party Manager

To all Star Party Volunteers past and present.

Jim Knoll & I will be handing out the Outreach Awards to all who have reached at least 25 hours of outreach dating back to our records starting in 2014. Please come to the February monthly meeting on Feb. 6th if you haven't already received your free bag of goodies and certificates last month!

February Events still in need of Volunteers

Saturday – February 7 -- SOUTH TUCSON
Old Pueblo Civitan Club
Tucson Parks & Recreation Therapeutics Dept.
1575 E 36th St
Age Group: Age 18+; Adults with disabilities
Estimated # Participants: 100
1 Additional Scope needed
Setup Time: 6:00pm Start Time: 6:30 pm
End Time: 8:00 pm

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Saturday – February 14 -- NORTH TUCSON
Tohono Chul Gardens
7366 N Paseo del Norte
Age/Grade Level: All Ages
 # Participants: Possible 100's
2 Additional Scopes Needed
Setup Time: 6:00-6:15pm
Start Time: 6:45pm End Time: 8:30pm

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Tuesday – February 24 -- CENTRAL TUCSON
Carrillo Magnet School
440 S. Main Ave
Age/Grade Level: K-5
Participants: 100+
1 Additional Scope Needed
Setup Time: 6:30 pm. Start Time: 7:00 pm.
End Time: 8:00 pm.

Friday – February 13 -- TUBAC AZ
Tubac Presidio State Historical Park
1 Burruel St., Tubac, AZ
Participants: 50 – 75
Age/Grade Level: Adults
2 Additional Scopes Needed
Setup Time: 6:30 pm. Start Time: 7:00 pm.
End Time: 9:00 pm.

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Saturday – February 21 -- SE TUCSON – Solar & Evening viewing
Pima Community College – East Campus
8181 E. Irvington Road
Age/Grade Level: All ages
Participants: 100+
Solar viewing: 1 Additional Solar Scope Needed (White light or H-alpha)
Setup Time: 1:30 pm.
Start Time: 2:00 pm. End Time: 5:00 pm.
Evening viewing: 2-3 Additional Scopes Needed
Setup Time: 6:00 pm.
Start Time: 6:30 pm. End Time: 9:00 pm.

February Events Filled—No Volunteers Needed

Wednesday – February 4 -- NORTH TUCSON
Harelson Elementary School
826 W Chapala Dr.
Age Group: K – 8
Estimated # Participants: 100+
0 Scopes needed
Setup Time: 6:00pm Start Time: 6:30 pm
End Time: 7:30 pm

Thursday – February 5 -- NORTHEAST TUCSON
La Paloma Academy
2050 N. Wilmot Road
Age Group: K – 8
Estimated # Participants: 200+
0 Scopes needed
Setup Time: 6:00pm Start Time: 6:30 pm
End Time: 7:45 pm

Friday – February 6 -- NORTHEAST TUCSON
Pima County Conservation Lands & Resources (CLR) @ Agua Caliente Park
12325 E Roger Rd.
Age Group: All Ages
Estimated # Participants: 75 – 100
0 Scopes needed
Setup Time: 6:30 pm Start Time: 7:00 pm
End Time: 9:00 pm

Friday – February 6 -- Catalina AZ
Compass High School @ Catalina State Park
Flycatcher Group Campsite
11570 N Oracle Rd
Age Group: 9 – 12 grade astronomy class
Estimated # Participants: 30
0 Scopes needed
Setup Time: 6:30pm Start Time: 7:00 pm
End Time: 9:00 pm

Saturday – February 7 -- CATALINA
Catalina State Park
11570 N Oracle Road
Age/Grade Level: All Ages.
Participants: 100+
0 Scopes Needed
Setup Time: 6 – 6:30 pm.
Start Time: 7:00 pm. End Time: 9:00 pm.

Tuesday – February 10 -- FAR NE TUCSON
Emily Gray Junior High School
11150 E Tanque Verde Rd
Age Group: 7 & 8th Grade
Estimated # Participants: 30
0 Scopes needed
Setup Time: 6:15pm Start Time: 6:45 pm
End Time: 8:00 pm

Wednesday – February 11-- CENTRAL TUCSON
Safford Community School
200 E 13th St
Age/Grade Level: K – 8 Grade
Participants: 100
0 Scopes needed
Setup Time: 6:00 pm. Start Time: 6:30pm
End Time: 7:30 pm.

Saturday – February 14 — ORACLE AZ
Oracle State Park
3820 E Wildlife Dr, Oracle AZ
Age/Grade Level: All Ages
Participants: 125 – 150
0 Scopes needed
Setup Time: 6:30 pm. Start Time: 7:00 pm.
End Time: 9:00 pm.

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Tuesday – February 17-- NORTH TUCSON
Amphitheater Middle School
315 E. Prince road
Age/Grade Level: 6 – 8 Grade
Participants: 50 – 75
0 Scopes Needed
Setup Time: 6:00 pm. Start Time: 6:30 pm.
End Time: 7:30 pm.

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Wednesday – February 18 -- BIOSPHERE AZ
School Group @ Biosphere2
32540 S Biosphere Rd
Participants: ~15
Age/Grade Level: School Students + Adults from Washington
0 Scopes Needed
Setup Time: 6:30 pm. Start Time: 7:00 pm.
End Time: 8:30 pm.

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Saturday – February 21 -- PICACHO AZ
Picacho Peak State Park
15520 Picacho Peak Rd, Picacho, AZ
Age Group: All Ages
Estimated # Participants: 100+
0 Scopes needed
Setup Time: 6:30 pm Start Time: 7:00 pm
End Time: 9:00 pm

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Tuesday – February 24 - NORTHEAST TUCSON
John B. Wright Elementary School
4311 East Linden St
Age/Grade Level: 3 to 6 Grade
Participants: 100+
0 Scopes Needed
Setup Time: 6:30 pm. Start Time: 7:00 pm.
End Time: 9:00 pm.

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Tuesday – February 17 -- NCENTRAL TUCSON
Salpointe Catholic High School
1545 E Copper St.
Age/Grade Level: 9 – 12 Grade
Participants: 150-200
0 Scopes Needed
Setup Time: 7:30 pm. Start Time: 8:00 pm
End Time 9:30 pm.

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Friday – February 20 -- EAST TUCSON
Saguaro National Park EAST – Learning Center
12661 E Broadway Blvd.
Age Group: All Ages
Estimated # Participants: 150+
0 Scopes needed
Setup Time: 6-6:30pm
Start Time: 7:00 pm End Time: 9:00 pm

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Monday – February 23 -- WEST TUCSON
Cooper Center for Environmental Learning
5403 W Trails End Rd
Age/Grade Level: Grade 4
Participants: 52
0 Scopes Needed
Setup Time: 6:30 pm. Start Time: 7:00 pm.
End Time: 8:30 pm.

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Saturday –February 28 –WEST TUCSON –SOLAR
University of Arizona, Lunar & Planetary Lab
The ART of Planetary Science
1629 E University Blvd
Age/Grade Level: All Ages
Participants: 50 – 75
0 Solar Scopes needed (White Light or Halpha)
Setup Time: 1:30 pm. Start Time: 2:00 pm.
End Time: 4:00 pm.

Special Interest Groups

Starry Messengers Special Interest Group

Opening Minds to the Universe

The Starry Messengers group contributes to the TAAA outreach program by providing age-appropriate hands-on activities at school star parties and community events. We differ from the TAAA Star Party outreach program in that most of our activities can be performed indoors, and most don't require telescopes or clear skies.

Our **February 9th meeting** will be held at the Applied Research Building on the UA campus. This is located at 1420 E Helen St. There's a parking lot at the NW corner of Speedway and Vine. The front door faces Speedway. Arrive by 7pm and we'll proceed to the second floor as a group using an elevator. (If you're late, text or call Terri and we'll let you in as the doors are locked 24/7.)

At this meeting, we'll be laying out our exhibit for the Tucson Festival of Books. Our theme is Extremophiles and the Possibility of Life Beyond the Earth. If you're volunteering for our TFOB exhibit, you might want to attend this meeting.

Opportunities to volunteer for hands-on, non-telescope events are listed below. To sign up for an event, use this link. Please note that this sign-up is only for our hands-on activities. If you're bringing a telescope to an event, sign up through Bernie Stinger.

If you've thought about getting involved in this type of non-telescope astronomy outreach, it's recommended that you sign up for an event highlighted in red as an experienced volunteer will show you how to present the activity. Volunteering for any event doesn't oblige you to attend our monthly SMSIG meetings, though you may enjoy hearing from others doing this type of outreach.

- **2/5/2026 (Thu)** 6:15 PM - 7:45 PM La Paloma Academy-Central (Grant/Wilmot) Exploring the Solar System Toolkit, 250 expected. Volunteers: Tom Sarko, Susan O'Connor (Telescopes present.)
- **2/6/2026 (Fri)** 4:20 PM - 7:00 PM Wilson K-8 (La Cholla/Tangerine) Exploring the Solar System Toolkit, 200 expected. Volunteers: Susan O'Connor and **one more volunteer**
- **2/18/2026 (Wed)** 3:00 PM - 4:00 PM Santa Rosa Library (I-10/22nd St), 10 expected. Volunteers: Susan O'Connor, Vincent Verna
- **2/21/2026 (Sat)** 10:00 AM - 4:00 PM SE Pima Community College (Kolb/Irvington) Life in the Universe Toolkit, 80 expected. Volunteers: Susan O'Connor and **one more volunteer** (Telescopes present.)
- **2/24/2026 (Tue)** 5:30 PM - 7:00 PM Sts Peter & Paul K-8 (Speedway/Campbell) Life in the Universe Toolkit, 200 expected. Volunteers: Susan O'Connor and **one more volunteer**
- **2/24/2026 (Tue)** 7:00 PM - 9:00 PM Wright Elementary (Pima/Columbus) PlanetQuest Toolkit, 150 expected. Volunteers: Pete Hermes and **one more volunteer** (Telescopes present.)
- **3/5/2026 (Thu)** 5:00 PM - 7:00 PM Copper Creek Elementary (La Canada/Naranja) Space Rocks Toolkit, 150 expected. Volunteers: Pete Hermes and **one more volunteer**
- **3/5/2026 (Thu)** 5:30 PM - 7:00 PM Cragin Elementary (Tucson Blvd/Ft Lowell) Exploring the Solar System Toolkit, 300 expected. Volunteers: Susan O'Connor and **one more volunteer**
- **3/7/2026 (Sat)** 11:00 AM - 1:30 PM Reid Park DeMeester Performance Center (22nd St/Country Club) Space Rocks Toolkit, 1800 expected. Volunteers: Tom Sarko and **one more volunteer**

- **3/25/2026 (Wed)** 3:00 PM - 4:00 PM Santa Rosa Library (I-10/22nd St), 10 expected. Volunteers: Susan O'Connor, Vincent Verna
- **4/8/2026 (Wed)** 5:30 PM - 7:30 PM St Mark's United Methodist (La Canada/Magee) Space Rocks Toolkit, 150 expected. Volunteers: Tom Sarko, Terri Lappin
- **4/23/2026 (Thu)** 5:30 PM - 7:00 PM Donaldson Elementary (Ina/La Cholla) Space Rocks Toolkit, 150 expected. Volunteers: Susan O'Connor, Pete Hermes
- **5/8/2026 (Fri)** 5:00 PM - 8:00 PM NW Pima Community Collage (Shannon/Magee) Space Rocks Toolkit, 100 expected. Volunteers: Vance Tanner, Tom Sarko

Questions about the Starry Messengers SIG and our hands-on outreach toolkits can be directed to Terri Lappin (email or 520-977-1290).

Astronomy Fundamentals SIG

by Connor Justice

Come join us for a presentation on the fundamentals of amateur astronomy. Learn your way around the night sky to add to your observing enjoyment. Meetings are on the second Thursday of each month.

The next AFSIG meeting is **Thursday, February 12, 6:30pm to 8:30pm.**
Topics to be determined. Contact Connor Justice for Zoom link and more information.

Access videos of previous meetings in the TAAA YouTube Channel AFSIG on the Web

Radio Astronomy SIG (RASIG)

by Sandy Nichols

The next RASIG meeting will be **Wednesday, February 18th** at 7:00 pm AZT via ZOOM.

Are you wondering what radio astronomy is all about? Come join us for an inside view as we discuss member projects.

Topics: TBA

Email Sandy Nichols for the ZOOM link or any other information. RASIG on the Web

Astro-Imaging SIG

by Gregg Ruppel

The next AISIG meeting will be **Monday, February 16, at 7:00 pm** via ZOOM.

Topics: **Beginners' Corner** - Ask A Question
Ten Years of Remote Imaging - Gregg Ruppel
Image Sharing, Q/A

Email Gregg Ruppel for the ZOOM link or any other information. Gregg and the AISIG folks are very active on the TAAA groups.io forum. Check out all the helpful advice and amazing images there. For more information or instructions on how to join the forum, click here.

View previous AISIG meetings on the TAAA YouTube Channel.
We offer a mentoring program for beginning astro-imagers. For details, see the AISIG Web Pages.

Member Astro-Images

NGC 7782 Group

Tom Eby

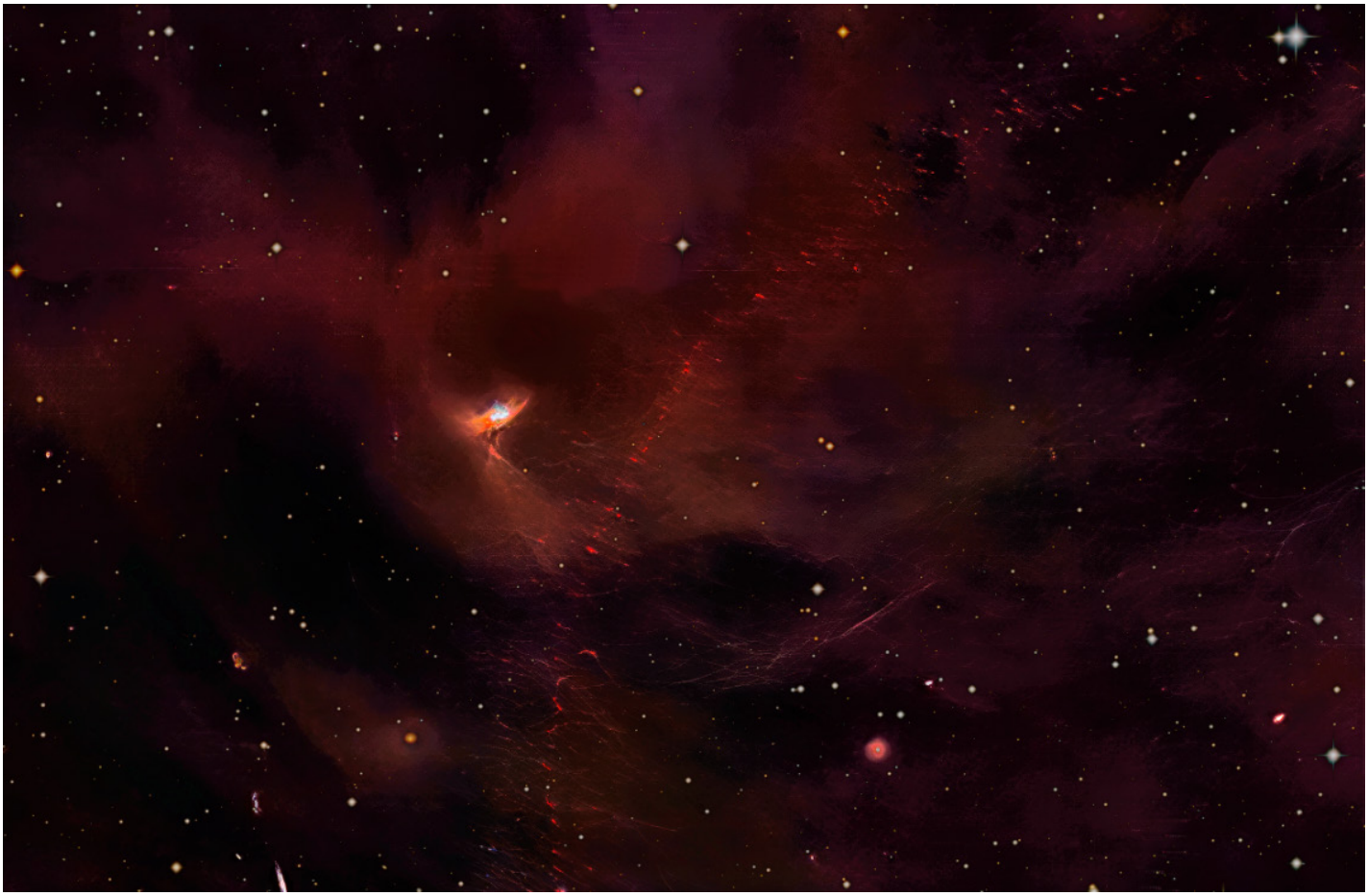
GSO RC 8" f/8, ZWO 2600MM Gain 100 Offset 50 -3C, 2.6 hour exposure, no filters.

Sh2-278

RASA 8" f/2, ZWO 2600MC Pro Gain 100 Offset 50 -3C, unguided, no fiters, 4.8 hrs exposure.

Rik Hill - **NGC 2264**

Matt Penn - **Rosette Nebula**; Dwarf mini, 30mm f/5, EQ mode on a mini-tripod, dual-band internal filter and processed 439 x 60s subframes in Siril.



LBN 1642 Astrobin

Alex Woronow

Gum 15 Astrobin

Sean Shifflette - **Pleiades**; HDR image combining the 30-second and 120-second data. Optolong L-Pro filter, Veralux script.

Ed Beshore - **Rosette Nebula**

Astro-physics 155mm refractor. Astrobin

IC 434 - SQA55 and Antila Triband RGB Ultra filter. Astrobin

David Stearn

Melotte 15 - Image data was from Astrophotomarket. Processed in Pixinsight using the SHO palette. Astrobin

Sh2-240

Samyang 135mm with a filter ring that made it about f/2.3 and the asi2600mc camera and the L-Para filter.

Astrobin

Craig Harding

NGC 2170

Sharpstar 94edph scope.

Allen Force - Sh2-155 Astrobin

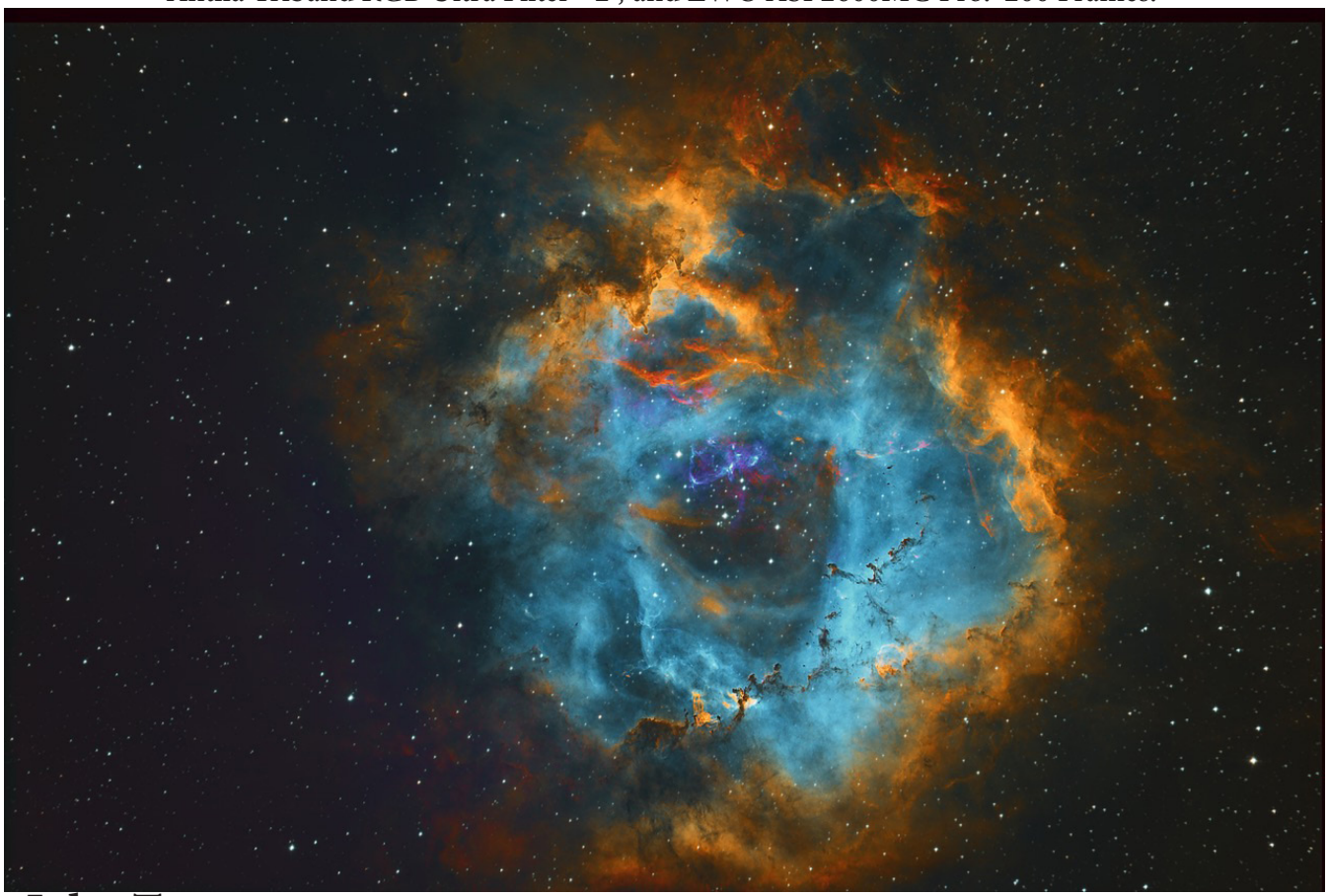
Ed Jacoby - **Flaming Star Nebula**
100 x 3 minute exposures, SQA 55 Astrobin

NGC 2264 - Askar FMA 180 scope, 2600 MM Pro camera, Antlia 3nm HOO filters, 90 5 minute subs total 7.5 hours.

Randy Smith

IC 443 - Skywatcher 250P scope, 2600 MM Pro camera, Antlia 3nm HOO filters, 124 3 minute frames 6.1

Bryan Betcher - Rosette Nebula; Celestron 9 ¼ HD Edge. With HyperStar, Antlia Triband RGB Ultra Filter - 2", and ZWO ASI 2600MC Pro. 200 Frames.



John Tsantes - NGC 2244; SHO, 9.5 total hours integration, Optolong LeXtreme, L Synergy filters, 2600 MC Pro camera, Sky-Watcher Quattro 200p telescope.

NGC 4725

Celestron EdgeHD 8”, ZWO ASI2600MM, Exposure: 6.5 hrs

Astrobin

Mike Mulcahy

Sh2-216

Takahashi FSQ 106N, ZWO ASI6200MM, Exposure: 12.75 hrs

Astrobin

by Doug Smith

Observing Programs - What's Up List for February - March 2026

Many of the Astronomical League observing programs can be done from our backyards. The following objects are visible in February and March for the common observing programs.

Constellation Hunter Program – The following constellations are well placed for observing in February and March:

Auriga, Camelopardis, Cancer, Canis Minor, Gemini, Lynx, Monoceros, Orion, Taurus.

Messier Observing Program - The following Messier Objects are well placed for observation during February and March (listed in ascending RA):

M79, M38, M1, M42, M43, M36, M78, M37, M35, M41, M50, M47, M46, M93

Lunar and Binocular Observing Program

Here is a list of dates for lunar phases in February and March:

New Moon: February 17, March 19
40 Hours waxing:February 19, March 21
72 hours waxing: February 20, March 22
4 days old: February 21, March 23
7 days old: February 24, March 25
10 days old: February 26, March 28
Full (14 days old): February 1, March 3
Gibbous: February 9, March 11
72 hours waning: February 14, March 16
40 hours waning: February 15, March 17

Solar System Observing Program

The following is a list of planets that can be observed during February and March:

Mercury is an early evening object in February and the first week of March. It reaches greatest elongation on March 20 and greatest brightness on March 13. During the last 3 weeks of March it is an early morning object.

Venus is an early evening object during February and March. It sets a little later each day, setting 30 minutes after sunset on February 1 and around 90 minutes after sunset on March 31. Note that on March 8 and 9, Saturn, Venus and Neptune will all be within a couple of degrees of each other.

Mars emerges from behind the Sun in early February. It is lost in the morning twilight, rising less 15 minutes before the Sun on February 1 and rising only 45 minutes before the Sun on March 31.

Jupiter is still well placed for evening observation during February and March. Jupiter transits around 10:30 PM on February 1 and around 6:30 PM on March 31.

Saturn is still visible in February and most of March. On February 1 it sets around 9 PM and it goes behind the Sun in late March. Probably lost in twilight by mid-March. Note that on March 8 and 9, Saturn, Venus and Neptune will all be within a couple of degrees of each other.

Uranus is well placed for evening observation. On Feb 1 it sets around 2:00 AM. On March 31 it sets around 10:30 PM.

Neptune is an early evening object in February and most of March. It sets around 9 PM on February 1 and goes behind the Sun in mid-March. Note that on March 8 and 9 Saturn, Venus and Neptune will all be within a couple of degrees of each other.

Special Event: Total Lunar Eclipse - March 3, 2026

Penumbra eclipse begins at 8:43 UT
Umbral eclipse begins at 9:50 UT
Mid eclipse is at 11:34 UT
Umbral eclipse ends at 13:18 UT
Eclipse ends at 14:25 UT

Urban Observing Program

The following **deep sky objects** are well placed for observing during February and March:

NGC 1807, NGC 1817, M38, M36, M42, NGC 1981, M37, M35, NGC 2169, NGC 2232, NGC 2244, NGC 2264, NGC 2281, M41, NGC 2301, M50, NGC 2392

The following **Double Stars** are well placed for observation during February and March:

Trapezium, Beta Monoceros

TAAA Astronomy Equipment For Sale

TAAA has an assortment of astronomy-related equipment for sale. This equipment is available for members only at this time.

Celestron 8" CPC
(No Photo)

Dual fork arm mount, 9x50 finder, 2 eyepieces, Telrad, finder rings, hand controller, user manual, tripod, diagonal. Basically new in original box. **$1400***

Celestron 6 NexStar
2 of these.
Some are black tube, some are orange. All come with Tripod, eyepieces, finder. All are single fork rail mount, NexStar (tested), 1.25" visual back, 1.25 diagonal, 2 1.25" eyepieces. One comes with 6x30 crosshair finder and one comes with a Telrad
$500 each

Homemade 8 inch Newtonian telescope. Sturdy GEQ mount. Solid tripod. 2-inch focuser (with 1.25" adapter), 6x30 crosshair finder. **$100**

12" Dobsonian
Another great deal!
Very large, Homemade.
Crosshair finder. **$500**

12-inch Skywatcher Collapsible Dobsonian scope.
2" focuser, large 8x50 finder, and 2 eyepieces. **$750***

16 inch Meade Lightbridge Truss Tube Dobsonian. 2" focuser (with 1.25" adapter), crosshair finder, mirror cooling fan, shroud, dust cover. A steal at **$1000!**

TAAA Astronomy Equipment For Sale (continued)

Celestron 5" Omni XLT Tripod, Celestron CG4 GEQ mount, 6x30 finder, diagonal, 1 eyepiece, user's manual. **$400**

We have numerous **tripods**. Celestron, Meade and others. Heavy duty, light duty, etc. If interested please inquire. Flexible on price

Small camera tripods - $10

Several full aperture **white light solar filters**. Most are 'film type'. We have one 'glass type'. Various sizes. All checked out okay. If interested please inquire for available sizes and prices.

EYEPIECE CLEARANCE SALE!!!
50+ eyepieces and filters for sale at rock bottom prices! Mostly 1.25". Inquire for availability and pricing

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We also have an assortment of other items available at this time including: Finders (various sizes), Finder rings, focusers, some eyepieces, some eyepiece filters, telescope rings of various sizes, mirror blanks of many sizes, a 6-inch Newtonian mirror set mounted in mirror cells, several large mirrors and much more.

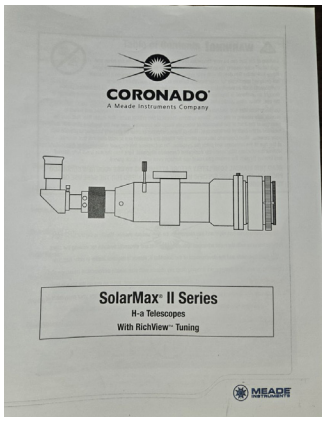
To make inquiries about what is available or to express a desire to purchase one of the items please contact: Douglas Smith or call 520-396-3233

Member Equipment for Sale

- All advertisements are for member-owned equipment. Members may not place ads for non-members.
- Advertisements are for one month. If you would like to run the ad for a longer period you must resubmit the ad each month.
- If you would like to show the item as sold in a following issue, you must send the sold notice to the editor.
- Each member may submit up to two ads per month.
- There are no formal ad restrictions. Please keep them relatively brief. A small photo or two may be submitted. The editor has total discretion as to the formatting of the ads.

Buyers: The TAAA does not assume responsibility for the products sold or offered. It is the responsibility of individuals who posted the ad to reply to your message and confirm the legitimacy. There are risks which you assume when dealing with people who might be acting under false pretenses; all these risks are borne by you. The TAAA does not control the products offered by and to members. But please, let's all be honest with each other!

Solar Telescope For Sale



SolarMax II 90
Double Stack

Comes with:

- Precision RichView Tuning System
- <.5A Bandwidth
- 15mm Blocking Filter
- 800mm Focal Length, 90mm f/8.8 Refractor
- Includes Cemax Eyepieces, Travel Case, Sol Ranger Finder
- Clamshell mounting ring
- Original manual

Price: $3,500 local pickup ONLY

Contact: Joe Gianninoto 520-908-3393 or email

DEPARTMENT OF ASTRONOMY AND STEWARD OBSERVATORY

Public Evening Lecture Series Spring 2026

Monday, February 16
Galaxy Slam!! (more information to come)

Monday, March 2
Title TBA
Dr. Thomas Stuber
Steward Observatory

Monday, March 16
Towards Atmospheric Characterization of TRAPPIST-1e: Our Best Chance at Habitable Exoplanet Characterization with JWST
Dr. Sukrit Ranjan
Lunar & Planetary Laboratory

Lectures are in-person or Watch via ZOOM.

Location: Steward Observatory N210; Parking 2nd Street or Cherry Ave Garage
Open at 7:00PM, Lectures begin at 7:30PM; Telescope viewing 8:30PM Weather Permitting

More Information

COLLEGE OF SCIENCE
LUNAR & PLANETARY LABORATORY

The Art of Planetary Science 2026: Space Through Our Lens

When: February 27 to March 1
Where: University of Arizona, Kuiper Space Sciences, 1629 E. University Blvd., Tucson, AZ

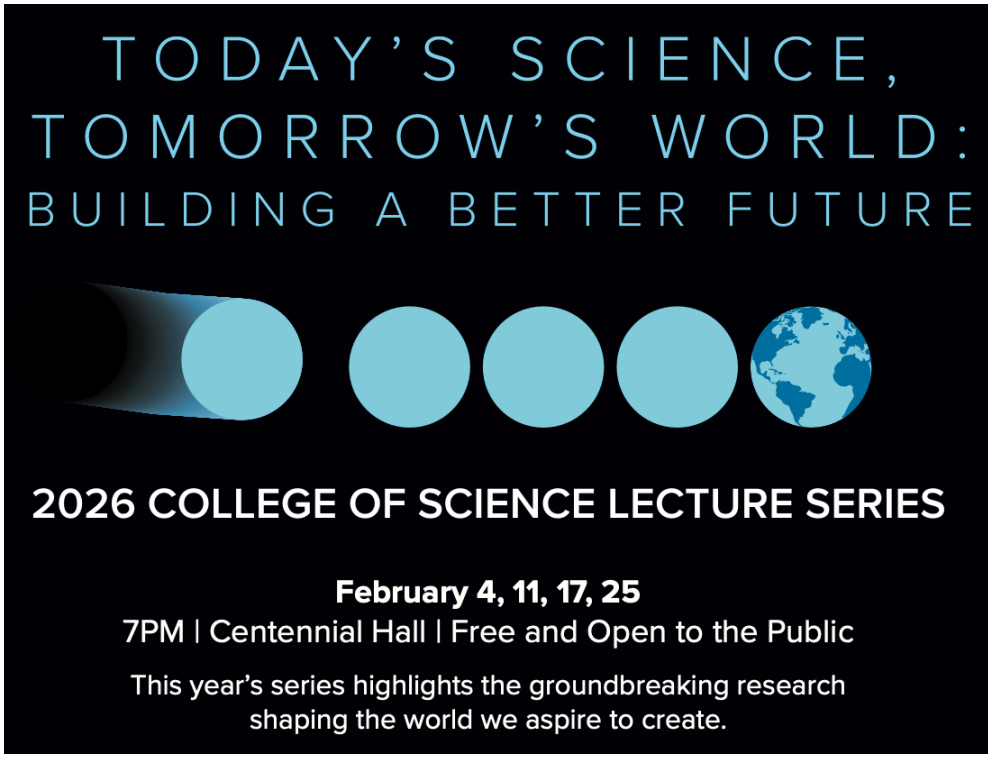
The Art of Planetary Science is an annual art exhibition run by the University of Arizona's Lunar and Planetary Laboratory that celebrates the beauty and elegance of science. The show presents a multi-faceted view of science and scientists, and we hope it can inspire in others the same passion it inspires in us. Attendance to this event is free!

TAPS weekend includes special events including telescopes, an Apollo Era special exhibition, designated speaker Alfred McEwen, an astro chiasm cabaret show, and live music.

Web Page

College of Science

College of Science Lecture Series
"Tomorrow's World" 2026 Lecture Series



Wednesday, February 4: Dr. George Sutphin
Aging Science: Preventing Disease at Its Source

Wednesday, February 11: Dr. Martha Bhattacharya
From Fruit Flies to Future Cures: How Tiny Insects are Driving Big Discoveries in Brain Science

Tuesday, February 17, 2026 Dr. Lise-Marie Imbert-Gérard
Harnessing the Power of Stars: Shaping the Future of Energy with Fusion Science

Wednesday, February 25 Dr. Laura Condon
Earth's Story: The Importance of Human Understanding in the Age of AI

More information and links to free tickets here.

Skyward

By Dr. David H. Levy

February 2025

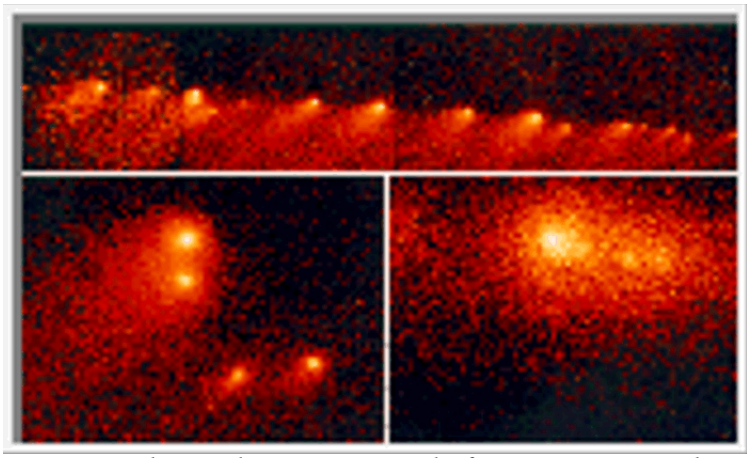
A few minutes before midnight on 17 December 1965, I began a program of hunting for comets and exploding stars, or novae. I recall writing at the time that when I began, the interest would primarily be in comets. It still is, even though I independently discovered Nova Cygni 1975 (V1500 Cygni), and a second nova Cygni (V1668 Cygni) in 1978. I also remembered thinking that while discovering a comet is hard, searching for one is easy. I was 17 years old.

A few minutes before midnight on 17 December 2025, I completed sixty years of comet hunting. Years ago, I proposed to Wendee that I might stop. Almost annoyed with me, she asked if I still enjoyed it as much as ever. Yes! "So why would you even consider stopping something that brings you so much joy?" Comet hunting still brings me as much delight as ever, and thus I continue to search whenever and wherever I can.

When I began, the sport seemed to be a good fit for my personality. I was quite shy and withdrawn as a kid, even more so as a teenager. Gravitating towards activities that kept me apart from other people, I even decided not to tell anyone, even my own family. As I grew older, my inhibition gradually faded. By the time I discovered my first comet in 1984, I had relocated to southern Arizona where clear nights were more the rule.

My program expanded momentously when I joined the Shoemaker team. In 1991 we discovered seven comets together, plus a new periodic comet I found on my own. The following years, 1992 and early 1993, saw no new comets for me or for us. All that changed on 23 March 1993, when I loaded a film into the 18-inch diameter Schmidt camera at Palomar Mountain Observatory. Two days later Carolyn uttered her now-famous line, "I think I have discovered a squashed comet," that changed our lives forever. Gene died in an auto accident in 1997, and Carolyn passed away in 2021. I am the only one of our threesome that is left.

In recent years, I have become introverted once again. I am surrounded by excellent friends and family, but losing Wendee was very difficult. But there is one saving grace. On a starry night I walk out to my observatory and open it. Seeing the stars still gives me more happiness than I can ever expect. What began in 1965 has offered fulfillment, peace, and experiences I shall always cherish.



Comet Shoemaker-Levy 9 just before its impact with Jupiter. NASA photograph.

Dr. David H. Levy is a long-time member and former President of the TAAA. He is a well-known astronomy writer and discoverer of comets. He writes this monthly "Skyward" column for the Vail Voice and generously allows us to publish it here.