

TAAA Desert Skies Bulletin

Observing Our

Since



Desert Skies

1954

August 2026

www.tucsonastronomy.org

Membership Meeting

Friday, August 7, 2026 6:30PM

TAAA's next general member meeting will be held on **Friday, August 7, 2026**. The Main Presentation will start at 6:30PM. 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.

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Main Presentation at 6:30PM AZT

Title:

Part 1: The Amazing WISPIT 2 exoplanet discovery and images with UA's MagAO-X camera.

Part 2: How to avoid Light pollution in Tucson.

Presentation: In a two-part presentation, Dr Laird Close will present results of a University of Arizona multi-year program to directly image young (approximately 5 Myr old) accreting protoplanets in H-alpha. In the second part, he'll introduce us to infrared imaging which few amateur astronomers consider doing but can be successfully done under light polluted skies such as in urban Tucson.

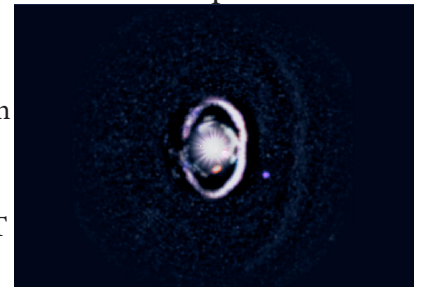
Dr Close is the Primary Investigator of the MaxProtoPlanetS survey, using the extreme AO system MagAO-X on the 6.5m Magellan Telescope at Las Campanas Observatory in the Atacama Desert of Chile. This survey has produced compelling, very high contrast images of protoplanets in the PDS 70, 2MJ1612, and WISPIT 2 systems. The WISPIT 2b and 2c images are some of the most popular and important images of young planets ever made.

In the second part of his presentation, Dr Close will discuss the increasing brightness of the night sky due to inexpensive LED lighting. He'll compare increases in the visible spectrum (400-700nm) to changes in the near infrared spectrum (750-1000nm) and will discuss how amateur astronomers can help further explore new ways of avoiding light pollution in Tucson.

Biography: Dr Laird Close received his Ph.D. in Astronomy from the University of Arizona. He is currently a Professor of Astronomy and an Astronomer at the University of Arizona. He is an expert in Adaptive Optics system design, having developed several adaptive optics systems and high-resolution infrared cameras, making it possible for ground-based telescopes to outperform space-based telescopes like HST.

This image of the WISPIT 2 system was captured by the Magellan Telescope in Chile and the Large Binocular Telescope in Arizona. The protoplanet WISPIT 2b is a small purple dot to the right of a bright white ring of dust surrounding the system's star. A fainter white ring outside of WISPIT 2b can be seen.

Laird Close, University of Arizona



August 2026

July marks the beginning of the TAAA fiscal year and the new term for our incoming board. With new board members we have a program of orientation that has leaders discuss the various aspects of TAAA, from our regular activities, to long-term strategy, to financial results. It can be quite overwhelming so it is spread over a number weeks. Those efforts do show what a significant year this has been for TAAA.

Our membership has continued to grow now standing at a record 767 individuals. Our dark sites have expanded their offerings, so we have had a record number of visits to both CAC and TIMPA. CAC has completed a number of special projects this year including the opening of the B.G. Stinger Observatory with its .8-meter telescope, graveling of the original 10 members pads and the completion of graveling for the member observatories and the R.V. parking extension. Right on the heels of those finished projects we have started construction of four new member leased pads, and the Dean Ketelsen Observatory with its 14-inch Celestron. There is also a group of members who have begun planning for the next phase of member leased observatories with five more planned. TIMPA has expanded its special offerings with an emphasis on smart telescopes. This has been a big hit allowing more of us to get those images we have always wanted. More use of TIMPA for paid star parties has led to plans to improve the signage for visitors who are unfamiliar with the site to find their way in and out of the observing area.

Our outreach mission has grown as well, with our traditional school and park star parties increasing, especially the demand from parks. Our reputation has reached as far as Mesa

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](mailto:Ed.Foley@tucsonastronomy.org) 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.

by Ed Foley

with a school traveling here to Tucson to attend. Our star parties have been included in the Sky Tours events at Arizona Public Media's Baker Center, and we have a request from the Public Affairs Officer from the SAO-Whipple Observatory for their Southwest Astronomy Festival. We were able to host overnight Astronomy Camps for three schools this year. We also concluded the annual Grand Canyon Star Party in June with a record 145 volunteers. Outreach to the community, this important part of TAAA's mission, is alive and well.

The new board is also charged with reviewing the year-end financial results of TAAA and approving the budget for the coming year. The results for 2025-26 year ending June 30 showed a strong financial position as can be seen in the reports later in this month's bulletin.

Ed

President: Ed Foley
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Desert Skies Bulletin

Contributions to Editor: [David Rossetter](mailto:David.Rossetter@tucsonastronomy.org) by the 24th.
Astro-Images to our Image Editor: [Gregg Ruppel](mailto:Gregg.Ruppel@tucsonastronomy.org)
Proofreaders: Terri Lappin, Jeff Rothstein, Jim Knoll

TAAA Year-End Financial Condition

The TAAA Fiscal Year ends on June 30. The following is a summary of our results and how the organization stands financially.

With our growing membership base, now about 767 members, you might think dues were the greatest contributor to our income, but it was 4th at \$15,080. The leading source of income was donations totaling \$183,645 (from members, estates and foundations), followed by CAC operations at \$27,356, and our TSA paid star parties for \$23,260. All in all, TAAA received \$281,544 in income this year. With strong revenues this year, our reserves and endowment are growing, giving us greater resources to support our programs and maintain our dark site assets.

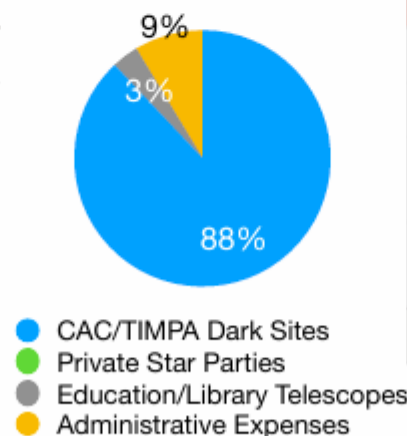
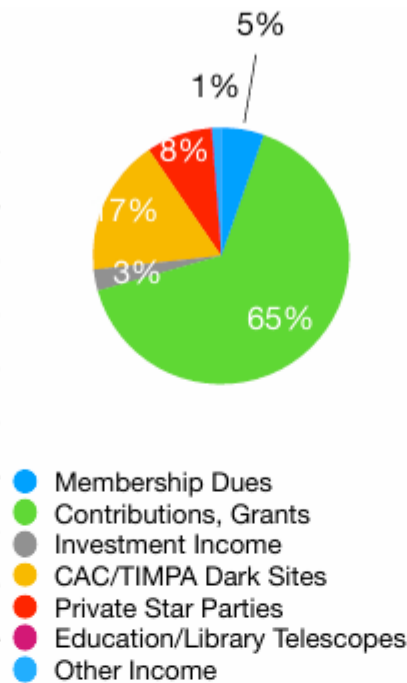
Statement of Financial Position

as of 6/30/2026

Assets	
Cash	\$26,539
Savings	\$212,391
Fixed Assets	\$1,409,489
Endowment	\$142,526
Other Assets	\$3,809
Total Assets	\$1,794,753

Liabilities	
Deferred Revenue	\$131,981
Other Liabilities	\$9
Total Liabilities	\$131,990

Net Assets	
Unrestricted	\$1,528,686
Permanently Restricted - Quasi Endowment	\$134,077
Temporarily Restricted	\$0
Total Net Assets	\$1,662,763



Statement of Activity

Fiscal YTD as of 6/30/2026

Income	
Membership Dues	\$15,080
Contributions, Grants	\$183,645
Investment Income	\$7,544
CAC/TIMPA Dark Sites	\$48,440
Private Star Parties	\$23,260
Education/Library Telescopes	\$223
Other Income	\$3,352
Total income	\$281,544

Expenses	
CAC/TIMPA Dark Sites	\$126,387
Private Star Parties	\$0
Education/Library Telescopes	\$4,865
Administrative Expenses	\$12,449
Total expenses	\$143,701

Net Income	
Income minus expenses	\$137,843

Astronomical League Observing Awards for July 2026

by Doug Smith



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

Jeffry Johnston – Binocular Messier Observing Program



The NVRC is seeking candidates to fill some of our non-elected leadership positions including a **Chair for our Recognitions Committee**, and a volunteer to serve as **Club Publicist**, all subject to final selection by the TAAA President.

Be sure to also check out the *Help Wanted* section on the club's website main page for additional volunteer opportunities and links to relevant descriptions of those chances to get more involved with your club.

Please direct any questions or concerns regarding elected or volunteer positions to the NVRC at nvrcchair@tucsonastronomy.org. Pete Hermes (Chair), Dave Pass, Connor Justice, and Terri Lappin.

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, August 20
6:30 pm

Tumerico
2526 E. 6th Street
(S side of 6th St, E of N Tucson Blvd)

Menu changes daily

RSVP [Susan](#) 520-780-0136

Book Of The Month Review

by Douglas Smith (TAAA Librarian)

Book: "The Barnard Album"

Authors: Tim B. Hunter, James E. McGaha, Gerald O. Dobek

Pages: 180

This book is excellent guide to the Barnard objects. It makes a good companion to 'The Barnard Objects' by the same authors. This book explores the history of Barnard and reconstructs his diagrams and plates using modern equipment. Dr. Hunter implied he was disappointed in the plates as printed in this book at his recent lecture. However, as I went through the book I found the plates, while not as good as they might be, were still better than many I have seen in other volumes. He suggested downloading an electronic version of the book to see the 'whole glory' of the images.

I found the book pretty well organized with good historical content. I recommend purchasing this book for anyone interested in observing dark nebulae.

This book is readily available from various sources (e-Bay, Amazon, etc.). Current prices are around \$40. It is also available for check-out from the TAAA library (as are all BOTM books) and is in the CAC library.

Using Setting Circles workshop WILL be offered early next year.

I now have TWO telescopes that I can use for this workshop. No date set.

If interested please let me know! Douglas Smith alcor@tucsonastronomy.org 520-396-3233

Astronomical League Workshop Open for Enrollment

Place: Quincie Douglas Library Branch. 1585 E. 36th Street. NW corner of 36th and Campbell.

Date: Saturday, September 19, 2026

Time: 10 AM to 1 PM

Synopsis: This workshop is designed for anyone who may be interested in pursuing one of the Astronomical League observing programs for the first time or anyone interested in learning about these observing programs. The workshop will cover how the various observing programs work, program requirements, selection of an appropriate program, recommended equipment, resources, logging requirements, and much more. We will also cover other benefits and services provided by the Astronomical League.

If interested, you can contact the TAAA Astronomical League Correspondent (ALCOR) Douglas Smith at alcor@tucsonastronomy.org 520-396-3233 or sign up using the signup page on the website. There will also be a signup sheet available at the July and August member meetings.

Star Hopping Workshop Open for enrollment

Place: TIMPA **Date:** Thursday, September 10, 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 the proper star hopping technique and equipment usage. Each student 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.

If interested contact the instructor, Douglas Smith: alcor@tucsonastronomy.org 520-396-3233

PLEASE NOTE: due to equipment limitations there is a **strict limit of 20 students**.

Constellation Locating and Identification Workshop Open for Enrollment

Place: TIMPA **Date:** Thursday, October 8, 2026 **Time:** 6:00 PM until completed

Synopsis: This is another 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 use the supplied equipment to locate several constellations. They will learn how to use a planisphere and star atlas to locate constellations without memorizing the sky.

This program provides the methodology for the observing requirements of the Astronomical League's Constellation Observing Program (Northern and Southern).

If interested contact the instructor, Douglas Smith: alcor@tucsonastronomy.org 520-396-3233

PLEASE NOTE: due to equipment limitations there is a **strict limit of 20 students**.

Learn how to Record Observations and Sketch Objects Workshop Open For Enrollment

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

Synopsis: This is another workshop in the *practical hands-on astronomy workshop* series. Students will learn how to record observations and how to sketch objects. The students 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. The students will view, using a telescope, several different types of objects and perform recording activities and sketch different objects.

If interested contact the instructor, Douglas Smith: alcor@tucsonastronomy.org 520-396-3233

PLEASE NOTE: due to equipment limitations there is a **strict limit of 20 students**.

Fundamentals of Astronomy Class Open for Enrollment

Place: Patrick K. Hardesty Midtown Multi-Service Center, 1100 S. Alvernon Way, Tucson

Date: Three consecutive Saturdays: January 23, 2027, January 30, 2027, February 6, 2027

Time: 8:00 AM until 4:00 PM each day

Synopsis: This course is designed for anyone interested in learning the basic concepts in Amateur Astronomy. Topics covered (but not limited to) include the solar system, deep sky objects, stars, telescopes, eyepieces, mounts, star hopping, observation techniques, plus much more. This course is highly recommended for novice amateur astronomers and for anyone who may have just purchased a telescope for the first time. Taking this class will also aide the student in understanding the more advanced lectures often given during general membership meetings.

If interested contact the instructor, Douglas Smith: alcor@tucsonastronomy.org 520-396-3233 or sign up using the signup sheet that will be available at all General Members meeting starting August 2026 through January 2027.

Enrollment is limited to 25 students and is on a first come basis.

So, I Bought a Seestar!

Basic Skills for the ZWO Seestar S30 and S50

Open for Enrollment

Stephen Ferris, Instructor

Place: TIMPA **Date:** Thursday, October 29, 2026 **Time:** 6:00 PM until completed

Synopsis: ZWO Seestars are a hot item for amateur astronomers both new and experienced. They combine good optics, a lot of automation, and a user-friendly interface with entry level prices. This workshop will cover the basic use of both the Seestar S50 and the Seestar S30. It is open to both current Seestar owners and those who are considering buying a Seestar. If you have a Seestar of either design, please bring it with you, fully charged. The instructor will walk you through basic procedures for using your equipment. Don't forget to bring your phone or the pad that you use to control it.

If you are interested in joining us, please contact the instructor, Stephen Ferris:
timpadirector@tucsonastronomy.org Text: 520-661-5355

This training is ZWO Seestar specific. If you are interested in a workshop for another kind of smartscope, please contact Stephen at the contact info above.

Spooky Seestars and Smartscopes

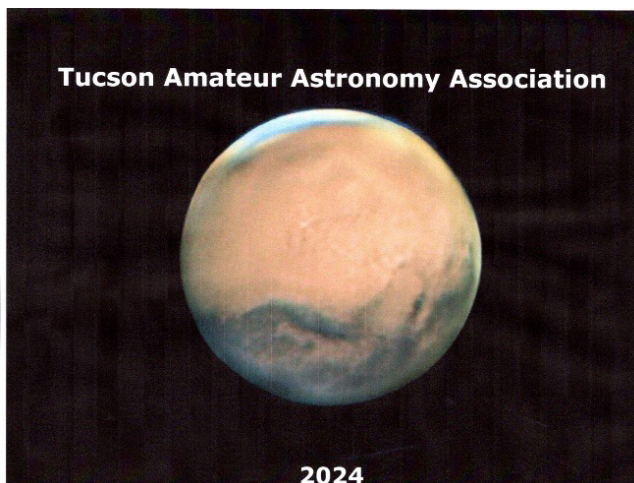
Potluck and Meet and Greet for All Smartscope Users at TIMPA!

Place: TIMPA **Date:** Saturday, October 31, 2026 **Time:** 5:00 PM until whenever

This TIMPA event is open to all smartscope users of all levels of experience and interest, plus anyone who might be interested in getting a smartscope. We'll get started with a potluck dinner social around 5:00 PM. Bring some images and techniques to share with the group. We would love to hear about any use of any smartscopes that you might have. Then, if weather permits, we'll do some viewing after it gets dark until whenever.

October evenings can get cool in the desert, so bring some warm clothing!

If you are interested in joining us, please contact the TIMPA Director, Stephen Ferris:
timpadirector@tucsonastronomy.org Text: 520-661-5355



2027 TAAA Wall Calendar

We are looking for your images!

Have you taken some wonderful astro-images or photos of club events that would be great in the TAAA 2027 calendar? Please share them!

We are looking for high-quality file formats. And please include a description. You will be given credit.

Please send your calendar images to [Susan O'Connor](#).

Join TAAA Citizen Science!

Matt Penn, Southern Illinois University Carbondale &
Tucson Amateur Astronomy Association

Citizen science opportunities in astronomy have expanded enormously in the past decade. Project possibilities for amateur astronomers span many levels. You can take scientific data as part of projects like eclipse observing networks, the AAVSO (American Association of Variable Star Observers) programs, Lucy asteroid occultations, exoplanet observations with smart telescopes, or observe Jupiter with your own home-built radio telescope. If collecting data is not your preference, then armed with your home computer you can examine NASA data from the Wide-field Infrared Survey Explorer satellite (WISE) to look for brown dwarfs with Cool Neighbors, classify galaxies as part of the Galaxy Zoo project, or set up a background program to examine gravity wave data looking for pulsars with Einstein@Home.

As a member of TAAA, you know that our local astronomy club has great facilities, wonderful dark skies, and enthusiastic volunteers. More than many other groups in the country, the TAAA has the ability to make outstanding contributions to astronomy citizen science projects. These contributions have already started as of April this year. A collaboration between TAAA and Gila Community College, using the club's new 32" DFM telescope, resulted in several new measurements of binary star positions. This collaboration used these measurements to update the orbital elements of these binaries and to explore stars from the Gaia 2 data release to verify if they were indeed binary stars. The data has been analyzed, the paper has been written, and the results will be published in an upcoming volume of the Journal for Double Star Observations ([Link](#)). Congratulations to the team that contributed to this work!

Working on citizen science projects and being a published co-author can have an important impact on the career path for high school and college students. The network that we put together for the 2024 total solar eclipse, the Dynamic Eclipse Broadcast (DEB) Initiative, published our initial science results in a paper in the Astrophysical Journal Letters ([Link](#)). DEB used extremely modest equipment for this project, including a 40mm aperture Askar FMA180 telescope. Kevin Cobble, the dynamic citizen scientist from Texas, led a team of students at DEB site 64 and collected fantastic images of the solar corona, which were included as part of the movie we



DEB Initiative team 64 was led by Kevin Cobble and the data was collected by these members of the Junior Texas Astronomical Society, who are co-authors on our recent science paper.

produced. Kevin and his team of students are all co-authors on our science paper, and I'm hoping those students will enjoy listing that work on their resumes as they begin their professional careers.

With so many citizen science options, where else can the TAAA make unique contributions? In addition to the double star measurements using the DFM 32", the club has potential to contribute to existing projects like ExoClock, the Kilonova Catcher, or possibly to other projects waiting to be invented.

Ed Foley and I would like to initiate a citizen science discussion with TAAA members to find what types of projects interest the club and how we can help to support that work. If you are interested in participating in a project, please send an email message to taaacitizenscience@gmail.com. Once we reach a critical mass, I'll schedule a Zoom telecon and we can brainstorm one or two project ideas to get started. With such special equipment and sky conditions, the members of the TAAA are well-suited to become leaders in astronomy citizen science. I'm looking forward to our future discussions!

"Working With Minors" Training for Volunteers



TAAA Members and Outreach Volunteers. Thank you for supporting our very important mission to spread the word about the amazing universe we live in. You likely inspire many young folks (and the general public) to explore the universe around them.

At the October 2, 2026 Friday General Meeting, the TAAA will be providing training on *Working with Minors* and awarding updated outreach awards. The training for Working with Minors is a triennial (every three years) requirement for TAAA members doing outreach with youth. Attendance will be recorded. It is also a good refresher for all TAAA members. Please try to attend in person (preferable) or by zoom. We will be presenting outreach awards as well for those in person, so hopefully you can attend. Please block your calendars for this event.

School/Public Star Party Requests

by Bernie Stinger

There are no public star parties scheduled in August.

We are looking forward to **Jimmy Long** taking the helm of this important outreach program starting in September!

Chiricahua Astronomy Complex (CAC)

New Member Observatories



We are planning to build additional remote-capable observatories at CAC similar to those already there and pictured at left and below. We have a core of 12 members that are interested in pursuing this capability and want to determine if additional members are interested. These 12 members plan to join forces for three large 16' x 16' observatories with four piers to split the building cost. A similar concept could

be arranged with other members. We can also build smaller observatories with fewer members joining together. The observatories would be paid for by the member lessees but owned by TAAA. In exchange the members would be given a 10-year lease with TAAA for use of the observatory. In 2023 the cost of the observatories ranged from \$25,000 for the 10x10 to \$45,000 for the 16x16 version. With inflation, it is expected the actual costs in 2026 will be higher.

This project may move quickly. If you are interested, send an email to CAC Director [Jim Knoll](#) and President [Ed Foley](#) as soon as possible. We can then set up a Zoom meeting to discuss the specifics.



Happenings at TIMPA, Summer 2026

The TIMPA team is in the midst of the Summer Monsoon, and while we have only had a few observing nights this summer, we've been busy preparing the site for the coming fall. Our biggest project is to revamp the Gila Monster observatory. The Gila Monster 14", which was the original club scope on site, has now been officially retired. It's been taken off the pier and placed into storage on site. In the meantime, we've begun work on replacing the 14" Meade with a Losmandy G11 mount. The replacement mount, which is controlled by an Explore Scientific PMC Eight system, can talk to both an ASI Air and NINA, and will be able to carry an 85mm refractor, a 127mm refractor and a C11 Schmitt Cassegrain tube, all of which are on site. We are extremely grateful to Doveed Levy and David Rossetter for the donation of the Losmandy Mount, as well as Ed Foley, Kevin and Naomi Green, and an anonymous donor for the OTAs. They will be a major new addition to the current collection of scopes that are available to users on site.

The Smartscope Potluck held in May was a huge success, so popular that we lost count of the number of people there, although we estimate that it was about 25-30 people. We are preparing for more Seestar and smartscope events this fall, with another planned potluck and smartscope social planned for Halloween! All members are welcome, and we'll have food, treats and good company on site.

We hope to have the new mount and telescopes, as well as the Meade 16" already on site, up and running by September, weather and volunteer schedules permitting. Once the monsoon clears, we will be back to our two weekends a month schedule through the end of the year and into next year. Please check the bulletin for dates. I will also be posting dates for trainings on the TIMPA 16" telescope in next month's bulletin.

Stephen Ferris - TIMPA Director

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).

NO TIMPA Star Party Dates this month due to the Monsoon

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

September 4-5; 11-12
October 2-3; 9-10

Oct 31-Nov 1; Nov 6-7
December 4-5; 11-12

New Moon

August 12
September 10
October 10

November 8
December 8

CAC

August 14-15
September 11-12
October 9-10
Oct 3 *Evening Under the Stars*
November 6-7
December 4-5

Chiricahua Astronomy Complex

by Jim Knoll

Upcoming CAC Weekend Dates (Friday - Saturday)

August 14-15 (New Moon August 12)
September 11-12 (New Moon September 10)



During Monsoon (July & August), we will not have guaranteed hosts at the site over the New Moon weekend. But, if the weather cooperates, members that are trained to open and close the site may be present. If you want to attend CAC and are not trained, make a reservation. Conrad Stolarski (Reservations Manager) will let you know if there will be someone there to open/close the site.

Special observing events at CAC. Take advantage of our dark Bortle 2 Observing Complex by participating in some upcoming events to include:

Meteor Showers. Perseids: August 12-13; Orionids: October 20-21;
Leonids: November 17-18; and Geminids: December 13-14.

CAC will also host our semi-annual **Evening Under the Stars** public star party October 3, 2026 from 7-9 PM.

As a reminder, you can be trained to operate most of the CAC 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. There are also nearby accommodations.

If you would like to observe, you must make a reservation on the CAC Web page at: [CAC Reservations](#).

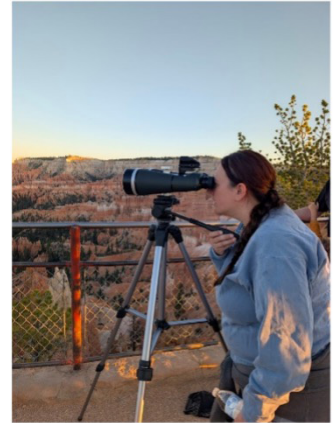
Please email CAC Director [Jim Knoll](#) if you have any questions or suggestions for improvement or comments of what is working well.

[CAC on the Web](#)

July Binocular Observers Activities - by Jimmy Long

We started out the month with Monsoon activity, which has put a 'damper' on the binocular observing activity.

I personally travelled to Bryce Canyon and brought along my 20x80 binoculars and observed the rising supermoon from Sunrise Point along the edge of the canyon. It was spectacular, and we had an impromptu 'star party' with the 30 or so vacationers that were there.



My daughter looking Southwest from Sunrise Point along Bryce Canyon, UT



Aurora Borealis, from Bryce Canyon, at the Trailhead of the Bryce Canyon Navajo Loop. July 3rd, 2026

The rangers conducted a star party one evening, and the skies were astounding (Bortle 2). At the end of the evening, one of the rangers asked me, "What's that Light over there?" and I postulated that it was the reflection from Salt Lake City on the cloud of smoke from the Cottonwood wildfire, but boy, could I not have been more wrong.

The shimmering purple/pink light highlighted by vertical lines was the Aurora Borealis, the Northern Lights, which was pretty far south at 37° N latitude. This was the night before Independence Day and I couldn't help but wonder if this was nature's fireworks to celebrate America's 250th birthday.

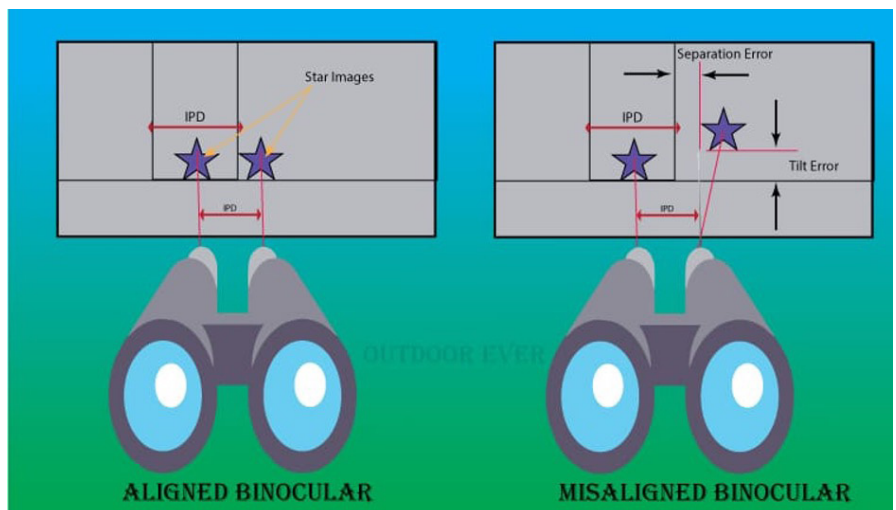
Collimation, a tale of Woe and Redemption.

Monsoon season often ends up as a time for tweaking, acquiring, and practicing with your astronomy gear. This year, for me at least, was a reinforcement of that idea.

Normally, binoculars bend light through a series of prisms to bring the beams from the objective lenses at the front to the eyepieces at the rear. This usually provides a nearly parallel set of light beams that, when entering the eye and falling on the retina, tell the brain to merge these two images into a single coherent image. It usually works very well until something untoward happens to your binoculars, such as dropping them, or giving them a hard jar.

When this happens, the light beams become 'un-parallel' or out of sync, and the images are not resolvable by your brain into one. (Slight deviations are still adaptable, but this causes fatigue over time).

Aligned vs misaligned astro binoculars, a common problem.



I recently acquired a very nice set of 25x100 binoculars on an absolutely excellent (or so I thought) maple tripod on eBay. One day, while trying to spy the observatory on Mount Lemmon from my driveway, one of the spreader arms gave way, and the whole thing fell over and impacted the ground. Well, misaligned is not descriptive enough for how out of whack my image was. Looking at Jupiter provided two widely separate disk/moon systems.

So, there are options to address this.

Option 1: Fix them yourself.

On the back of the binoculars, when you peel back the rubber cover, there are two holes with screws at the bottom of the channel, that *IF* you get the right size screwdriver/Allen bit, you can adjust the prisms up/down or right/left to align the images. I tried to do this on a cell phone tower about ¼ mile away and did get the two images to approach. But when testing on stars, I could never get the two images to merge.



25x100mm Binoculars on a TR3 Maple legged tripod from eBay. The black pipes are spreaders that keep the tripod legs from splaying apart.



Last image of the intact tripod before gravity taught its brutal lesson.



Peeling back the rubber cement holding the rubber cover reveals the collimation hole, one on each side.

Each brand and model of binocular is unique, and you must research the proper method to adjust them, but in my case, this is where the collimation hole was. I just didn't know the proper screwdriver size and was unable to be successful. (There are tiny Phillips heads #0, #00, #000 and the minuscule #0000 models). To do this procedure properly, an artificial star/alignment bench is essential to get the collimation to such a fine point for astronomical observations.

Option 2: Ship to a repair center.

I had done this with my Celestron 20x80 binoculars, which are notorious for being easy to knock out of alignment, and I was able to send them to a shop in Oklahoma, where they were repaired. But...shipping for these heavy binoculars was about \$48 each way, plus the repair costs. It was nearly 50% of the replacement value to have them fixed.

For these 25x100mm binoculars, in the padded metal case, I was dreading the costs of returning them to the manufacturer. (I'm sure it would have been several hundred dollars.)

Option 3: Why isn't there someone in town who can fix binoculars?

Well, it turns out, there IS!

While visiting Stellar Vision, on East 37th St & S Palo Verde, trying to find matching eyepieces for another project (bino viewer), I casually asked Frank Lopez where he gets his extensive collection of large binoculars collimated and the reply stunned me. "Right Here, I can collimate them for you". No way, 20 minutes from my house.

Suddenly, no hundred-dollar shipping bill, no three-week turn around. I had them back the next morning and his charge was very reasonable.



Frank Lopez from Stellar Vision, holding the "Magic Screwdriver" amongst his fine collection of large format binoculars and binocular telescopes.



A tiny, #00 Phillips head screwdriver did the job.

Well, it turns out that the "magic screwdriver" for my binoculars was a Phillips #00. Frank said he got one from an electronics store because it had a small handle that you could get your head next to while adjusting.

Well, there you have it, a tale of sadness and ultimately, joy. I set my 25x100mm binoculars up on my excellent Maple tripod at the AZPM star party on July 22nd, and a long line of star gazers were looking at the 1st quarter moon to the chorus of "No way", "Oooo" and "Ah". These reactions, for me at least, are the rewards we get for volunteering at star parties.

I hope that by sharing this tale, you can find a pair of your old binoculars that are set aside because they no longer give a clear view and pay a visit to Frank at Stellar Vision, and return to the skies. Keep looking up.

Special Interest Groups



Starry Messengers Special Interest Group

Opening Minds to the Universe

The SMSIG is taking a summer hiatus and will next meet on Monday, September 14th. We don't currently have any outreach events scheduled for the rest of the summer, but I'll email the regular SMSIG volunteers should that change.

If you'd like to become involved in astronomy outreach that doesn't require a telescope, check out the Starry Messenger page on the TAAA Members Only website to learn about what we do. After logging into MemberPlanet, click on the "Starry Messenger" link at the bottom of the right-hand menu.

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

Radio Astronomy SIG (RASIG)

by Sandy Nichols

The next RASIG meeting will be **Wednesday, Aug 19th** at 7:00 PM AZT via Zoom. All TAAA members are welcome to attend. The Zoom link will be posted to the TAAA Forum, or you can obtain it directly by [emailing](#) Sandy Nichols.

Topics:

- Observing solar flares using a dual dipole array.
- Member project updates
- Measuring the Milky Way rotation via H1 observations

[Email](#) Sandy Nichols for the Zoom if you do not already have it.

[RASIG on the Web](#)

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 August 2026 AFSIG meeting has been canceled due to organizer travel.

Contact [Connor Justice](#) for more information.

Access videos of previous meetings in the TAAA [YouTube Channel](#)

[AFSIG on the Web](#)

The next AISIG meeting will be **Monday, August 17th at 7:00 PM** via ZOOM.

Topics: **Beginners' Corner** - Ask a Question

Focusing and Auto-Focusing - Open Discussion

If you focus (and who doesn't), this session is for you. Share your tips, equipment, and techniques.

Image Sharing, Q/A

We will post Zoom details on [the Forum](#) before the meeting.

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

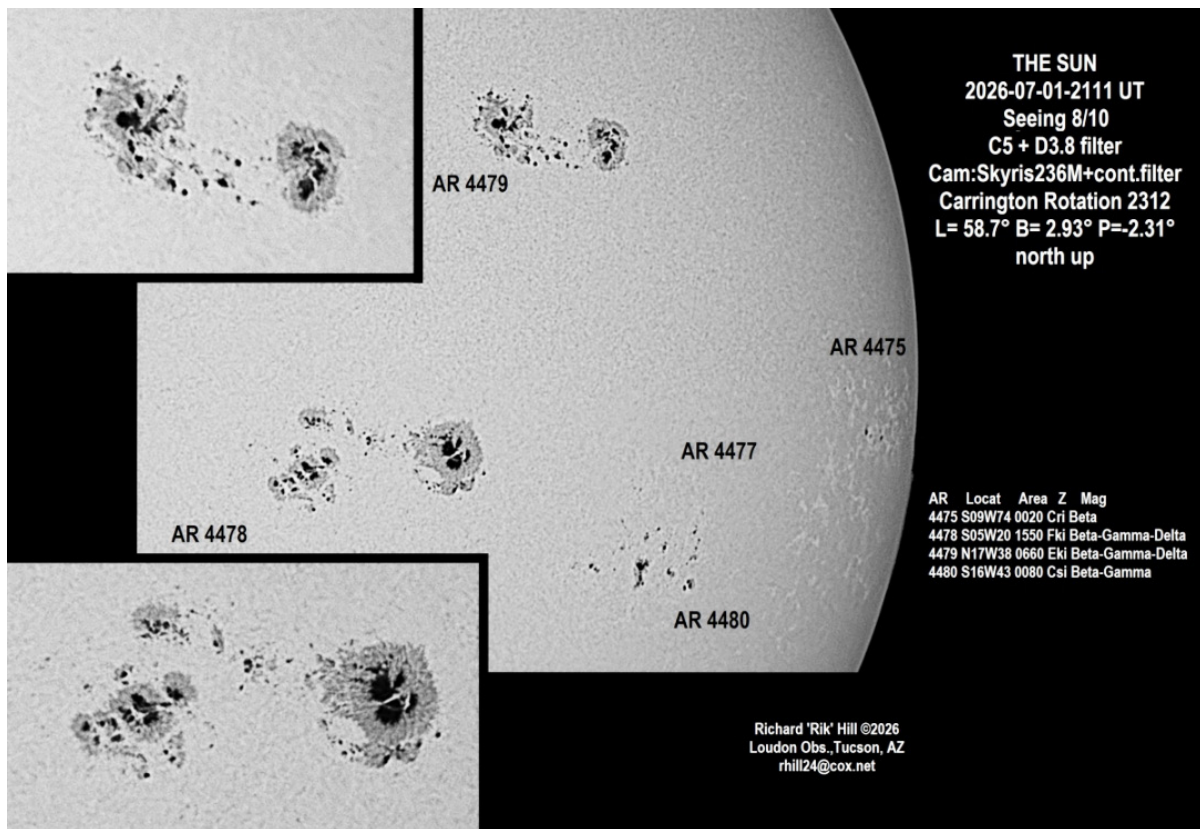


Richard Sands - Eastern Veil;

ES FDL100 ED127 CF with a Starizona Apex .65 reducer,
ZWO ASI2600MC Duo, Optolong L-Para 2"



Irene Kitzman - Monsoon Clouds



Rik Hill

Sunspots

Jimmy Long

Aurora

Google Pixel Pro 9 XL
3 sec, ISO 3200





Allen Force - NGC 5395; [Astrobin](#)

Richard Spitzer - Moonrise 6/28; Seestar S50





Mike McDowell - Southern Milky Way; [Astrobin](#)

David Stearn - IC 4592 (Blue Horsehead); [Astrobin](#)





M8

Askar 60 P, 2600MC PRO
camera, Gain 100 Offset 50 -3C/
CEM60EC mount
unguided 2 min subs/no filters

Tom Eby

M5

Askar 60 Pro scope + 2600MC
PRO camera





NGC 5248; ZWO ASI585Air,
Exposures: 92 x 3min

Paul Lorenz
AT152EDT triplet refractor

M20; ZWO ASI2600MC Duo.
Exposures: 40 x 5min



Observing Programs - What's Up in August 2026 – September 2026

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

Constellation Hunter Program Northern Sky - The following constellations are well-placed for observing for August and September:

Aquila, Cygnus, Delphinus, Equuleus, Hercules, Lyra, Sagitta, Serpens Caput, Serpens Cauda, Vulpecula

Messier Observing Program - The following Messier Objects are well-placed for observation during August and September (listed in ascending RA): Sagittarius is in prime location!

M62, M19, M92, M9, M14, M6, M7, M23, M20, M8, M21, M24, M16, M18, M17, M28, M69, M25, M22, M70, M26, M11, M57, M54, M56, M55, M71, M27

Lunar and Binocular Observing Program

Here is a list of dates for lunar phases in August and September:

New Moon: August 12, September 11	10 days old: August 22, September 21
40 Hours waxing: August 14, September 13	Full (14 days old): August 28, September 26
72 hours waxing: August 15, September 14	Gibbous: August 5, September 4
4 days old: August 16, September 15	72 hours waning: August 9, September 8
7 days old: August 20, September 18	40 hours waning: August 10, September 9

Solar System Observing Program

The following describes the planets and their visibility during August and September:

Mercury is a morning object during the first three weeks of August. It reaches greatest brightness around August 15. During the remainder of August and all of September it is an evening object, but will be difficult to see as it is setting less than an hour after the Sun.

Venus is an evening object during August and September. It is very bright during this period, reaching its greatest brightness on September 18.

Mars is a late evening during August and September. On August 1 it rises around 1:30 AM. On September 30 it rises around midnight.

Jupiter is now an early morning object. On August 1 it rises just 15 minutes before the Sun. By the end of September it rises around 2 AM.

Saturn is becoming better placed for observation each night. It is rising shortly after sunset. On August 1 it transits around 4 AM. By the end of September, it transits around midnight.

Uranus is a late evening object during August and September. It rises around midnight on August 1, and around 8:15 PM on September 30.

Neptune is becoming better placed for observation. It rises about 30 minutes before Saturn during this period.

Urban Observing Program

The following **deep sky objects** are well placed for observing during August and September:

M62, M92, M6, IC 4665, M7, NGC 6520, M8, M17, NGC 6633, M22, IC 4756, M11, NGC 6709, M57, Cr 399, NGC 6818, NGC 6826, M27

The following **Double Stars** are well placed for observation during July and August:

Epsilon Lyrae, Beta Cygni,

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. We have suggested prices for all equipment and telescopes but prices are negotiable!

All the listed telescopes come with eyepieces, finders and other accessories.



**Dobsonians – We have 2 large dobs
Homemade 13” and 12” Skywatcher**



Celestron 6 w/ NexStar
This is a great starter scope!



**Meade 5” ETX Maksutov
with AutoStar**
There are two of these.



Celestron 11 with NexStar



Meade 10” LX200 w/ AutoStar



Celestron 8s with NexStar
We have two C8's.



Maksutov Optical Tubes



25x100 Binoculars in case

TAAA Astronomy Equipment For Sale (continued)



Celestron 5"
Omni XLT



We have numerous **tripods**.



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

Adjustable
Observing
Chair



We also have an assortment of other items available at this time including: finders (various sizes), finder rings, 7x50 binoculars, 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.

If interested in purchasing any of the listed telescopes, contact Douglas Smith at dsmith217@cox.net to discuss included accessories and pricing.

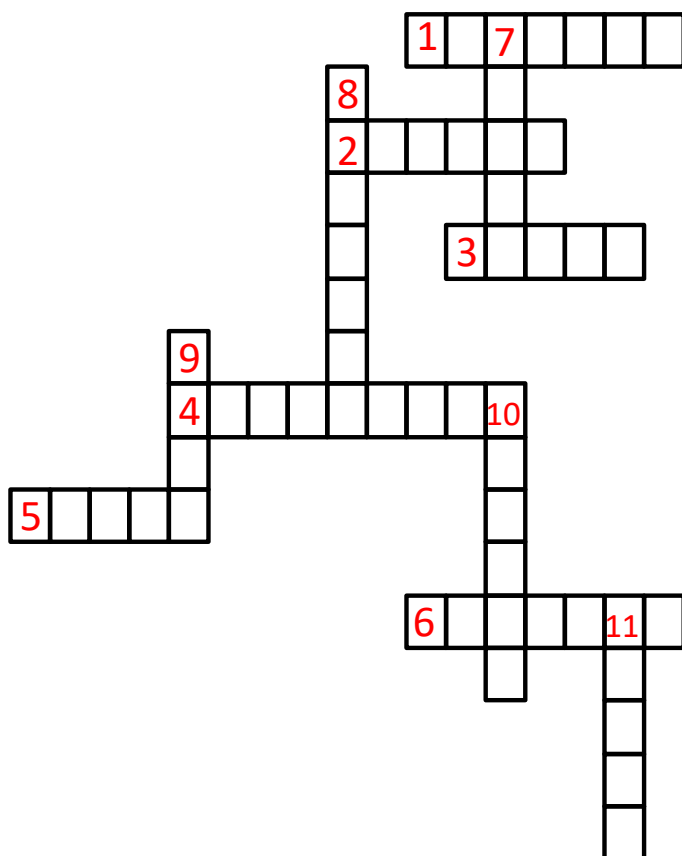
Member Equipment for Sale

Don't forget, you can advertise the sale of your excess equipment in the TAAA Desert Skies Bulletin for free!

- 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 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!

August Crossword Puzzle - The Solar System



Across:

1. Farthest planet from the Sun.
2. Coldest Planet.
3. Hale-Bopp was the last really spectacular one to visit us.
4. Vesta is the brightest of these objects.
5. This planets sidereal day is longer than its sidereal year. Also has the hottest surface temperature.
6. Closest planet to the Sun.

Down:

7. Was once a planet, no longer.
8. This planet contains around 80% of the mass that is not in the Sun.
9. Home of many alien invaders in motion pictures.
10. This planet has the lowest average density. Less dense than water.
11. Common feature found around all the gas giants.

Skyward

By Dr. David H. Levy

July 2026

The Moon, a pond in France, and my Grandfather

As a child I always treasured a close relationship to my Dad's father, whom I loved to call Grampa (misspelling deliberate) Willie. Our closeness began during a visit in 1959 or 1960, when we both took his apartment building elevator to the roof. On that unforgettable evening we both looked through binoculars at the Sun, which had not quite set. There and then we enjoyed a large group of sunspots on the Sun. A few years later, when he was away from his apartment, I went again to that roof to look for Comet Ikeya-Seki, the Great Comet of 1965. I wrote earlier about my visit to him in early 1967, the night he decided to purchase for me the 15cm f/4 rich field reflector which to this day is a telescope I use every clear night, and which is named Minerva.

After he died in 1973, I very much wanted a painting hanging on the wall of my grandfather's living room. To this day I am not certain of who the artist was, although the signature was close to that of the French painter Charles-François Daubigny. I knew it as "Grampa's pond" since it reminded me of the pond at his cottage at Jarnac, near Ripon, Quebec, which I have visited hundreds of times and after which Jarnac Observatory is named. I also know that the artist painted it on a humid day, as the painting shows a hint of a distant mountain hidden in haze.

I brought the painting with me when I settled in southern Arizona in 1979. On a return drive years later I was able to add the antique frame in which the painting was housed. Not long ago I tried to read the artist's name as Charles-François Daubigny, though the signature does not quite match. However, the pond matches fairly closely the ponds and riverbanks in France that he loved to paint over and over again.

Daubigny apparently also loved painting the Moon, and although Grampa's painting does not show it, the artist has many evening pond paintings that do. To add to his selenographic love, I offer a lunar map I created in 1964 (I was 16 then) out of a Sky & Telescope lunar map that included numbered craters and lettered mountain ranges. My completion of the map on July 26, 1964, by the way, led a few weeks later to amateur astronomer David Zackon's lending me his 8-inch f/7 reflector (which I named Pegasus). Dad later purchased the telescope from him, and on 11 October 1987 I discovered my third comet, C/1987 T1, with it.

I will probably never know if Daubigny was the artist who painted the pond, or if it was another artist with a similar style. But I do know that there is a connection between me and the artist in that we both thoroughly enjoy the Moon. He loved painting it, just as I relish the tens of thousands of happy guises I have caught over more than half a century of moongazing. By far the easiest thing in the sky to find with almost any telescope, the Moon never disappoints. Just as it is a place on which twelve people have hiked and countless spacecraft have explored, it thoroughly rewards anyone who takes a few moments to take a deep breath, open an eye, and appreciate the splendor of the Moon's soft, commanding, and enchanted luster.



This was my grandfather's painting. I do not know if Daubigny was the artist but the style and subjects were clearly his.

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.

