TAAA Desert Skies Bulletin

Observing Our Desert Skies Since 1954

May 2026

www.tucsonastronomy.org

Membership Meeting

Friday, May 1, 2026 6:30PM

TAAA's next general member meeting will be held on **Friday, May 1, 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.

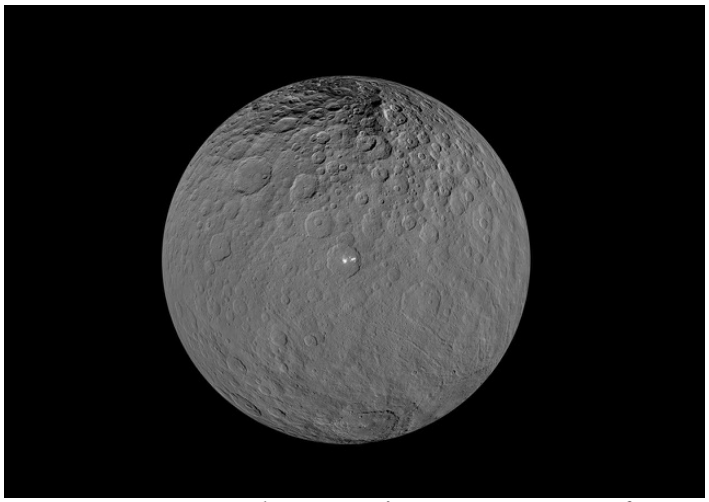
Inside this issue:

Main Presentation at 6:30PM AZT

Title: **All About Asteroids**

Presentation: In 1801, Ceres became the first asteroid 'discovered.' (it was since reclassified as a dwarf planet.) Since then, astronomers have used widely differing approaches to learn about the nature of asteroids. Nearly all of them are point sources that show no details through the largest telescopes. And so, several clever methods to determine their properties have evolved. These include photometry, radar imaging, and stellar occultations. Tom Polakis' presentation will range from the history of asteroid discoveries to the latest science about them and what future projects are planned. He will show samples of his techniques to study and photograph asteroids.

Biography: Tom Polakis has been an active amateur astronomer for 48 years, during which has seen Saturn circle the sun 1-1/2 times. He is a member of Saguaro Astronomy Club and East Valley Astronomy Club in Metro Phoenix. A graduate of Michigan State University and a retired mechanical engineer, Tom's main interests involve visual observing of all astronomical phenomena, and imaging them with equipment ranging from a phone to a backyard observatory. He has a special interest in describing the universe as an ever-changing entity. His writing and photography have regularly appeared in magazines such as Astronomy and Sky & Telescope. More recently, he has been an author or co-author for refereed astronomical publications.



Ceres as seen by NASA's Dawn spacecraft
NASA/JPL-Caltech/UCLA/MPS/DLR/IDA1

Notes From The President

May 2026

by Ed Foley

April is busy for many of our leaders, with star parties for students, parks, and private events active at this time. TAAA hosted two Astronomy Camps during the month, one of them I'd like to comment on.

We have established a relationship with the Gila Community College to bring a formal research program to TAAA. A pair of GCC classes will be involved in research of known or potential binary stars using the B.G. Stinger Observatory 0.8-meter DFM research grade telescope installed at the site this past year. The research data will then be analyzed, and a scientific paper produced, all with the participation of TAAA members.

There were other firsts for the month. A group of members interested in binocular observing began its activities. Further, our Astro Imaging Special Interest Group held its first 'meetup' for an in-person exchange of ideas on equipment and techniques under less-than-ideal weather conditions at CAC. Good discussions were reported.

Not a first, but the first in a long time, was an assembly of members of the Western Region of the Astronomical League. The WRAL, dormant for a number of years, previously acted to represent the interests of the western astronomy clubs in the national Astronomical League organization. This meeting's purpose was to reconstitute the organization. Eight California organizations, one from Nevada, and ours from Arizona were represented. Doug Smith, our Astronomical League Coordinator, and I attended this meeting held at the Lowell Observatory in Flagstaff, AZ. Claude Plymate and Teresa Plymate were elected as Chairman and Representative to the national organization to represent the WRAL. Claude and Teresa, besides heading their own organization in California, are long-time members of TAAA.

In addition to the formal part of the program, there were excellent exchanges among the various astronomy organizations sharing what came to be clear are common issues we all are addressing. The topics ranged from insurance coverage for our member organizations, to recruiting and retaining new members, and how to reach a younger generation of potential members. It became clear to me that TAAA has great strengths in this region in terms of our broad membership from newcomers to professionals in the field. We are able to offer numerous programs internally as a result, and field volunteers in the community in numbers that are the envy of many other societies in the region. Our two dark sites are also unmatched across this region. I am anticipating numerous ideas from these exchanges will lead to benefits for TAAA.

You might enjoy the report of this meeting in the WRAL Spring 2026 newsletter at this link.

Ed

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vice-president@tucsonastronomy.org

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secretary@tucsonastronomy.org

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past-president@tucsonastronomy.org

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.

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

The TAAA Leadership Election was opened this past Friday April 24th and will close a half hour into our membership meeting on May 1st.

If you are an eligible voting member, you should have received an email with a link to our online voting system (OpaVote) so that you may cast your ballot. Offices to be voted on include Secretary, Treasurer, 2 Board Members-At-Large, and 2 members of the NVRC; all are 2-year terms. Voting for uncontested positions is desired to show your support for those individuals committed to our club's sustainment and growth.

The NVRC is also seeking candidates to fill our non-elected leadership positions including a chair for our Recognitions Committee, serve as club Social Director (new position), and a volunteer to serve as club publicist, all subject to final selection by the TAAA President.

NVRC - Pete Hermes (Chair) NVRC Chair, John Christensen, Dave Pass, and Connor Justice

Tucson Stargazing Adventures Needs Your Help

The private portion of our outreach programs could use your help. Tucson Stargazing Adventures (TSA) offers private events for weddings, birthdays, anniversaries, resort conventions, and other events. Small group events are extremely rewarding. I love doing a 4-or-5-person event or even with a couple where I can spend time on each object talking about and showing them the wonders of the universe. Large group events such as conventions with participants from all over the country are also extremely rewarding as many of them live where they can't see much of the night sky. They are always very appreciative to learn about things they don't know anything about.

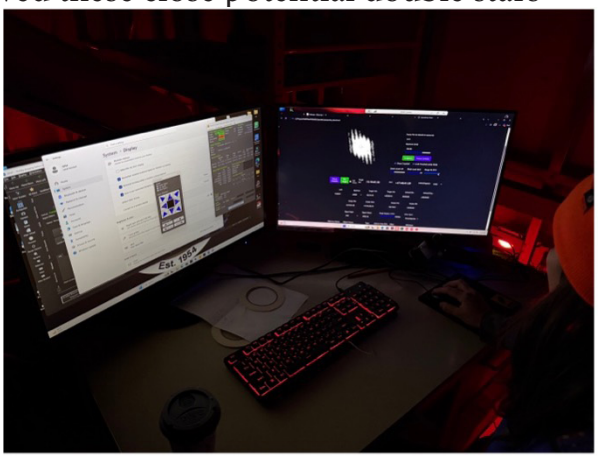
We can use either visual observers or volunteers using Electronic Assisted Astronomy (EAA). Both offer different perspectives on the Universe. About half our events are single scope and the other half are multi-scope events, so if you are not yet comfortable doing a single scope event, you can start on the multi-scope. I have about 10 active volunteers and occasionally must turn away events because no one is available. I would love to have your help.

If interested, place contact me at stargazing@tucsonastronomy.org. Thanks!!

Jim Knoll

Chiricahua Astronomy Complex (CAC) and TAAA Dive Into a Research Project!

For two evenings, April 7-8, 2026, a team of TAAA members along with members from Gila Community College used the B.G. Stinger Observatory at CAC for a professional research project. The 0.8-meter (32-inch) DFM telescope was used with special software and science cameras to determine and validate potential double stars observed by the GAIA telescope. Using software to conduct Speckle Interferometry and several different cameras, the Team observed these close potential double stars over two evenings and is now conducting a data reduction analysis to determine the results. In conjunction with the data analysis, the team will also begin writing up the results for ultimate submission to a professional journal. This effort will put CAC and TAAA on the map in the professional community and will likely bring future collaborations.



TAAA Team Members consisted of Ross Carnes, Scott Cooley, Dr. Ed Foley, Russell Genet, Jim Knoll, Bob Rose, Gary Steffens, and Bernie Stinger. Other team members included Kendra Base, Dean Corn, and Andy Kovic. The team was at CAC April 5 -9. We expect this will be an ongoing initiative. Stay tuned for future scientific efforts that you can participate in.

April Astronomy Camps

In April TAAA hosted two school groups for Astronomy Camps at our CAC dark site. The first group was a Gila Community College team who successfully completed research using the B. G. Stinger Observatory and its 0.8-meter telescope. More about this research is in a separate article. A second group included nine students and two adults from Cienega High School joining us for the first time.

Over the years TAAA has developed a good program for first time visitors to the site. The activities include sketching the position of the moons of Jupiter at the beginning and the close of the night to record the movement of its moons. We use a planisphere, new to most of the group, to identify and describe the eight brightest stars seen that evening. A hunt for eight Messier objects took place using four of the CAC telescopes, with the students required to observe and identify the types of object they were observing. We close the night imaging using DSLR cameras, cell phone cameras, and the SeeStar 30 to obtain images of the night sky. An educational evening for all!

Special thanks go out to the six TAAA volunteers who made the night happen.

Cienega HS group at 40-inch.

Observing with the 40 inch

Group in the BGSO using their planispheres

Students at Dinner

Amazing Radio Astronomy Projects From Radio Astronomy SIG Members!

Radio Astronomy "Cantenna" Antenna Design and Testing

by Daniel Sharayko

Radio Astronomy has always been shrouded in mystery which motivated me to invest in an understanding of the science by listening to a lecture series by Dr. Jay Lockman, PhD, Green Bank Observatory; involving myself with an Open Course Ware Lecture Series, by Professor David Staelin, MIT; and actively being involved with the Tucson Radio Astronomy Special Interest Group (RASIG) and with the Society of Amateur Radio Astronomers (SARA).

Since then, I have designed and built a "Cantenna" prototype Antenna to measure galactic hydrogen clouds, specifically, the 21cm Spectral Line of Hydrogen of 1420 Mhz.

The Cantenna prototype is comprised of three metal sections measuring 15.4cm diameter at its base and 17cm diameter at top of the horn, for an overall length of 41.5cm. The Mono Pole Probe is an N Female Bulkhead Connector with a copper radiator from Jefa Tech.

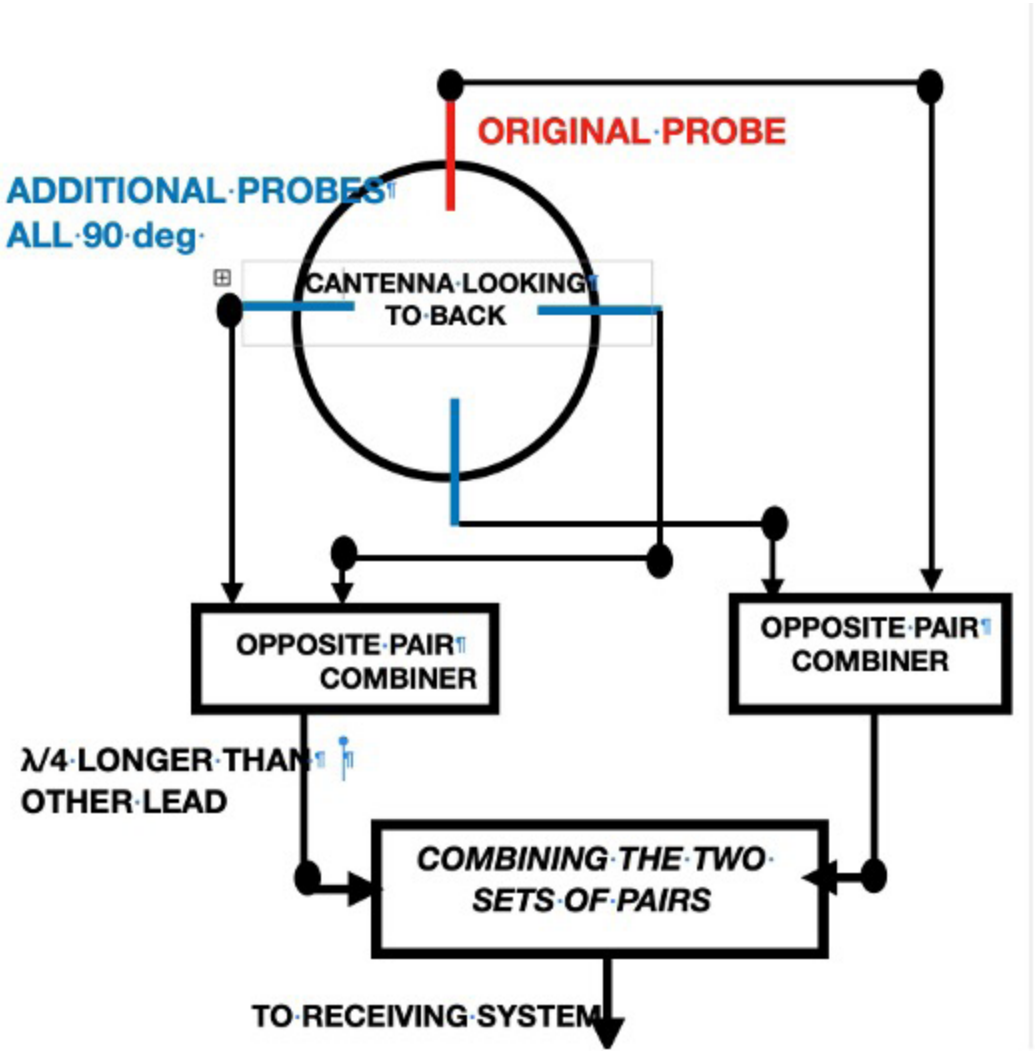
The components being used in the Cantenna testing is a Lenovo AMD Ryzen AI 7 Windows 11 laptop, connected to a Nooelec Sawbird + H1 Wideband Low Noise Amplifier (LNA), an RTL-SDR USB V4 Dongle Software Defined Radio Scanner, SDR# software, and associated hardware. Testing will consist of partial drift scan(s) at specific declinations to measure and produce 2D sky maps. Future updates on the progress of the Cantenna Antenna project are to follow.

Experimental Cantenna Design

by Vince Baker

Vince Baker has come up with a concept to possibly enhance the sensitivity of "cantennas" by up to a factor of 16. His approach is to add three more probes 90 degrees apart at the same distance from the back of the can. The scheme combines the outputs from each opposing pair (180 deg apart) and then combines the outputs from each pair in a way to efficiently detect the rotating fields inside the cantenna's circular structure. These are induced by the circularly polarized wavelets of H1 Line with a wavelength of 21.1 cm. The concept is based on Vince's own hands-on experience with microwave antennas from years past and his knowledge of antennas that produce circularly polarized waves (the turnstile) used in space-to-space and space-to-earth communications, among others. He then employs some innovative combing techniques. A simplified diagram is shown below.

He is currently constructing a test bed to determine the viability of the concept and to gather data in order to design an efficient implementation of the concept. He hopes to have results soon.



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.

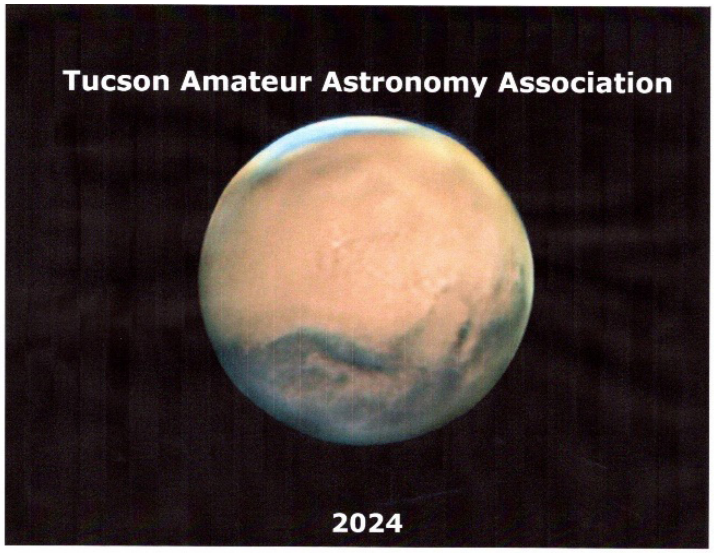
Thursday, May 21, 6:30pm

Chef Alisah's

5931 N Oracle
(W side of Oracle S of Rudasill)

Preview the menu at
https://www.alisahrestaurant.com/Menu/Menu.pdf

RSVP Susan 520-780-0136



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 OConnor.

Congratulations, Star Party Outreach Volunteers!

Bernie Stinger, TAAA Star Party Manager, has reported that we are #3 in the "Stars in the Network" listing on NASA's NSN (Night Sky Network) of star parties nationwide

Stars in the Network

Astronomy clubs regularly share their knowledge, time, and telescopes with their communities. These are the clubs who have reported four or more public astronomy events in the past six months (since October 25, 2025) using NASA Night Sky Network resources.

Events	Club Name	State
★	Santa Barbara Astronomical Unit ›	CA
★	Westminster Astronomical Society, Inc. ›	MD
★	Tucson Amateur Astronomy Association ›	AZ

Astronomical League Observing Awards for April 2026

by Doug Smith

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

Gus Gomez – Two In The View Observing Program
Pete Hermes – Open Cluster Observing Program

Astronomy Classes (Free!)

by Doug Smith

Astronomical League Workshop

Open for pre-enrollment

Place: Woods Memorial Library, 3455 N. First Ave. Tucson (probably)
Date: TBD – probably late Summer or early Autumn **Time:** TBD

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 (or questions), contact the instructor: 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 General Member meetings.

Smartscope Class & Events

So, I Bought a SeeStar!: Basic Skills for the ZWO SeeStar S30 and S50

Open for Enrollment - Stephen Ferris, Instructor

Place: TIMPA *Date:* Thursday, May 7, 2026 *Time:* 7:00pm 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 tablet that you use to control it!

This training is ZWO Seestar-specific. If you are interested in a workshop for another kind of SmartScope, please contact Stephen at the email address or number below.

If you are interested in joining us, please contact the instructor, Stephen Ferris: email, Text: 520-661-5355

Smartscopes and Snacks!

Pot Luck and Meet and Greet for All Smartscope Users at TIMPA!

Place: TIMPA *Date:* Saturday, May 9, 2026 *Time:* 7:00 PM until whenever

This TIMPA event is open to all Smartscope users of all levels of experience, plus anyone who might be interested in getting a Smartscope. We'll get started with a pot luck dinner social around 7:00 pm. (The sun sets late. Expect warm temperatures.) 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.

I will provide water, sodas, basic paper plates and plastic utensils. You are not at all required to bring food, but if you do, we expect about 10-12 people. I will notify everyone if we get more!

Please RSVP to Stephen Ferris, TIMPA Director, at email Text: 520-661-5355 by May 1.

If Smartscopes are at all of interest to you (or even if they are not), we would love to have you come out and join us!

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

May 8-9
May 15-16

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
May 8-9; 15-16	May 16	May 15-16
June 5-6; 12-13	June 14	June 12-13
July 10-11; 17-18	July 14	July 10-11
August 7-8; 14-15	August 12	August 14-15
September 4-5; 11-12	September 10	September 11-12
October 2-3; 9-10	October 10	October 9-10
		Oct 3 *Evening Under the Stars*

by Jim Knoll

Upcoming CAC Weekend Dates (Friday - Saturday)

May 15 to 16 (New Moon May 16)

WOW! We had a great turnout during the April CAC weekend. Weather was good and provided a great observing opportunity from our Bortle 2 complex. We had around 30 Members over the weekend, with almost all sleeping rooms and most of the RV spots filled. All the main pads were filled as well as several member-leased pads and the large circular amphitheater pad. A great time was had by all.

If you have not yet made it to CAC for a session, consider coming out with or without a telescope. The May CAC weekend (15-16) should be another awesome opportunity. We typically have our large telescopes operating Saturday evening (pending operator availability).

Our semi-annual Evening Under the Stars April 11th where we open CAC to the public to introduce them to the site and observe through our many telescopes, was a huge success with about 45 public attending and most of the large telescopes plus many personal scopes operating.

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.

CAC Director: Jim Knoll CAC on the Web

by Bernie Stinger

May 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 May 2026.**

Please let me know by 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 April 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

May Events still in need of Volunteers

Saturday – May 16 — ORACLE AZ
Oracle State Park
3820 E Wildlife Dr, Oracle AZ
Age/Grade Level: All Ages
Participants: 125 – 150
3 – 4 Additional Scopes needed
Setup Time: 7 – 7:30 pm.
Start Time: 8:00 pm. End Time: 10:00 pm.
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May Events Filled—No Volunteers Needed

Thursday – May 7 -- SE TUCSON – SOLAR
Dietz Elementary School
7575 East Palma St.
Age/Grade Level: K thru 8th Grade
Participants: 150
0 Solar Scopes Needed
Setup Time: 3:30 pm.
Start Time: 4:00 pm. End Time: 6:00 pm.

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Saturday – May 9 -- FAR WEST TUCSON
Pima County Conservation Lands and Resources (CLR) – Juan Santa Cruz Picnic Area
2000 N Kinney Road
Age/Grade Level: All Ages
Participants: 75-100
0 Scopes Needed
Setup Time: 7 – 7:30 pm.
Start Time: 8:00 pm. End Time: 10:00 pm.

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Friday – May 22 -- EAST TUCSON
Saguaro National Park-EAST – Learning Center
12661 E Broadway Blvd.
Age Group: All Ages
Estimated # Participants: 150+
0 Scopes needed
Setup Time: 7 – 7:30 pm
Start Time: 8:00 pm End Time: 10:00 pm

Thursday – May 7 – – Mt. Lemmon
Canyon View Elementary School
Whispering Pines Girl Scout Camp on E Organization Ridge Rd, Mt. Lemmon
Age/Grade Level: 5th Grade
Participants: 100 There will be groups of 20 – 25 @ ½ hour each.
0 Scopes Needed
Setup Time: 7 – 7:30 pm.
Start Time (tentative): 7:45 pm.
End Time: 9:35

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Thursday – May 14 -- NORTHEAST TUCSON
Tucson Waldorf School
3605 E. River Rd.
Age Group: 6th Grade + parents
Estimated # Participants: 50
0 Scopes needed
Setup Time: 7-7:30 pm
Start Time: 7:45 pm End Time: 9:30 pm

Special Interest Groups

Starry Messengers Special Interest Group

Opening Minds to the Universe

The Starry Messengers group will celebrate the past academic year of outreach events with a social gathering at Barrio Brewery on the evening of May 11th. We have a lot to celebrate this year! We had 42 requests for astronomy toolkit activities, which is a 50% increase over last year. Of those 42 events, we cancelled only one due to a lack of volunteers. This cancelled event occurred on the same night as another event and unfortunately, we could only support one event that night. The number of events supported by the Starry Messengers this year is unprecedented and I'm so happy to see volunteers stepping up to support this type of telescope-free outreach. (Note about our celebration at Barrio Brewery: This is not funded by the TAAA, so you'll need to purchase your own meal and drinks.)

Here's a list of the 19 volunteers over this past year and the number of hours they contributed. This includes volunteers at our Tucson Festival of Books booth but not those who brought telescopes to that event which are tracked through the telescope outreach program. Kudos to Susan O'Connor who gave 83.5 hours to volunteering this past year!

Ardis Herrold	3	Mason Sugarman	5.5	Tom Sarko	23.5
Chuck Schroll	4	Nelsey Toner	9.5	Vance Tanner	8
Ed Foley	2	Pete Hermes	19.5	Vanessa Thomas	3
Jim Knoll	2	Royce Marion	3.5	Vincent Verna	13
Karen Liptak	3.5	Susan Knoll	2	Yan Zhang	3.5
Kay Lehman	15.75	Susan O'Connor	83.5		
Keith Schlottman	4	Terri Lappin	27.75	**Total hours for all**	**236.5**

The SMSIG will take a hiatus over the summer months when we'll not hold monthly meetings. There will be a few non-telescope outreach opportunities over the summer which we'll support. These are listed below. The event at the NW Pima Community College is an opportunity for someone who wants to learn how to present the Space Rocks toolkit. This toolkit is very popular and easy to present. To sign up for either of these events, go to https://volunteersignup.org/TEJTM.

- 5/8/2026 (Fri) 5:00 PM - 8:00 PM NW Pima Community College (Shannon/Magee), Space Rocks, 100 expected. Volunteers: Tom Sarko, Vance Tanner
- 6/13/2026 (Sat) 7:00 PM - 10:00 PM Arizona-Sonora Desert Museum (Ajo Way/Kinney Rd) Light Pollution Education Kit, 500 expected. Volunteers: Need at least two volunteers

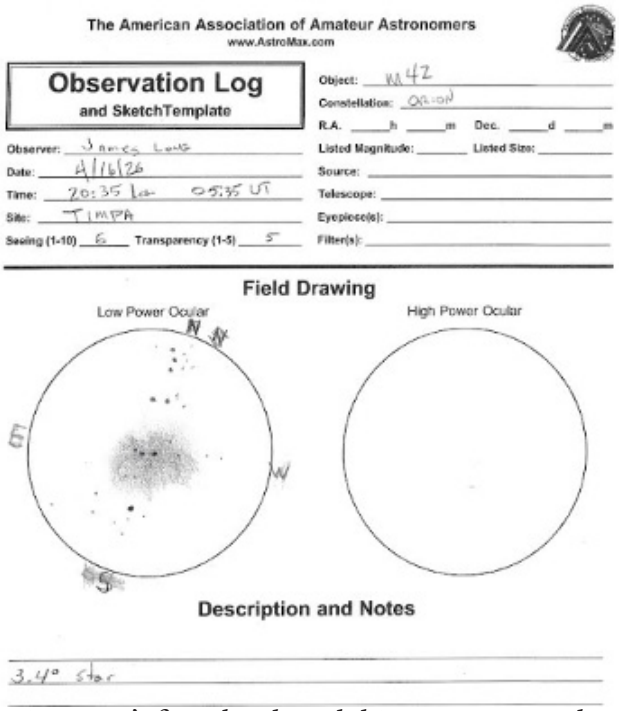
Following our summer hiatus, our first regular monthly meeting in the fall will be on September 14th.

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

Binocular Observing Group

While not yet a Special Interest group, a strong core of TAAA members have expressed interest in exploring this exciting part of astronomy.

We'd like to express our special thanks to Doug Smith who conducted a Sketching and Recording class out at TIMPA on April 16th. You would never think how oddly satisfying using binoculars, a pencil, and one of these TAAA recording sheets to record what you see can be. Of course, it's particularly hard to write neatly on a clipboard in the dark!


The American Association of Amateur Astronomers
www.AstroMax.com

Observation Log
and SketchTemplate

Observer: James Long
Date: 4/16/26
Time: 20:35 Local 05:35 UT
Site: TIMPA
Seeing (1-10) 6 Transparency (1-5) 5

Object: M42
Constellation: Orion
R.A. ___h ___m Dec. ___d ___m
Listed Magnitude: ___ Listed Size: ___
Source: ___
Telescope: ___
Eyepiece(s): ___
Filter(s): ___

Field Drawing

Low Power Ocular

High Power Ocular

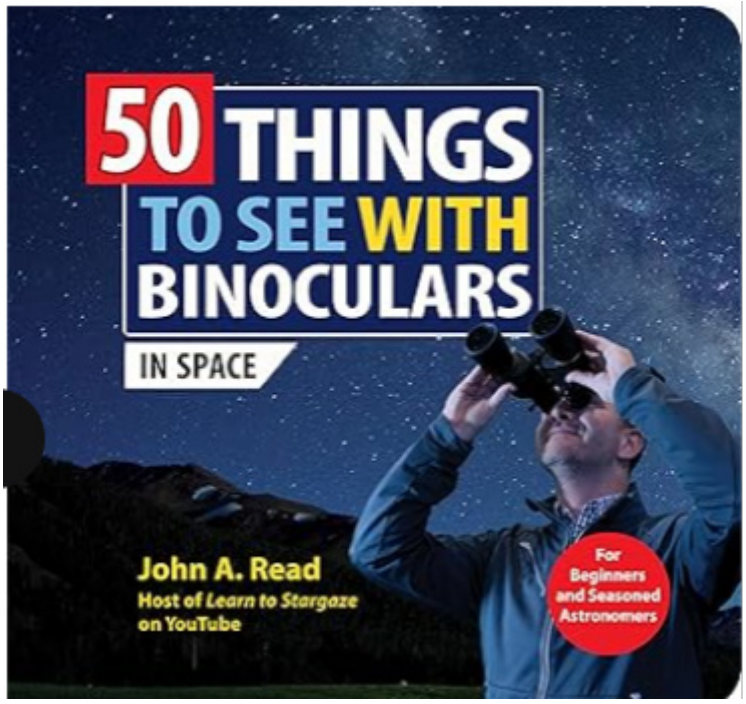
Description and Notes

3.4° star

Jim Long's first sketch with his 20x80 Binoculars

We have decided that we should meet on Zoom during those times when the moon is full or near full, because observing with binoculars would be challenging during that time. For the current season, that works out to be the last Thursday of the month. So far, we have 8 people on our email list. (Join us!) Our first meeting was April 29th, and we discussed some of the proposed topics for the next year, and just generally got to know each other.

One of the good resources to start out is this book by John Read:



Terrific Beginners Resource

The interesting part is that John took some photos of the objects he discussed in the book with particular emphasis on setting exposure so that the image looked like what you could expect in your 10x50 binoculars! He took some of these photos right from our local area, at the Biosphere. How cool is that?

Young man gravity chair observing at Rocking K star party.

(Photo by Jim Long)

Our next meeting will be on May 28th, at 19:00AZT as this is two days shy of the Full Moon.

Radio Astronomy SIG (RASIG)

by Sandy Nichols

The next RASIG meeting will be **Wednesday, May 20th** 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: **Member projects. Sudden Ionospheric Disturbance (SID) radio astronomy.**

Meanwhile: RASIG members have been busy assembling radio telescopes of various designs and making observations. One type of antenna is the "cantenna" which can be used to study neutral hydrogen clouds in our galaxy and beyond. The cantenna is made utilizing empty food tin cans. It is inexpensive and consists of the can plus a probe of the correct size placed at the correct distance from the closed end.

Two members, Daniel Sharayko and Vince Baker, share their experiences building this device in a separate article earlier in this Bulletin.

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 next AFSIG meeting is **Thursday, May 14, 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

Astro-Imaging SIG

by Gregg Ruppel

The next AISIG meeting will be **Monday, May 18 at 7:00 pm** via ZOOM.

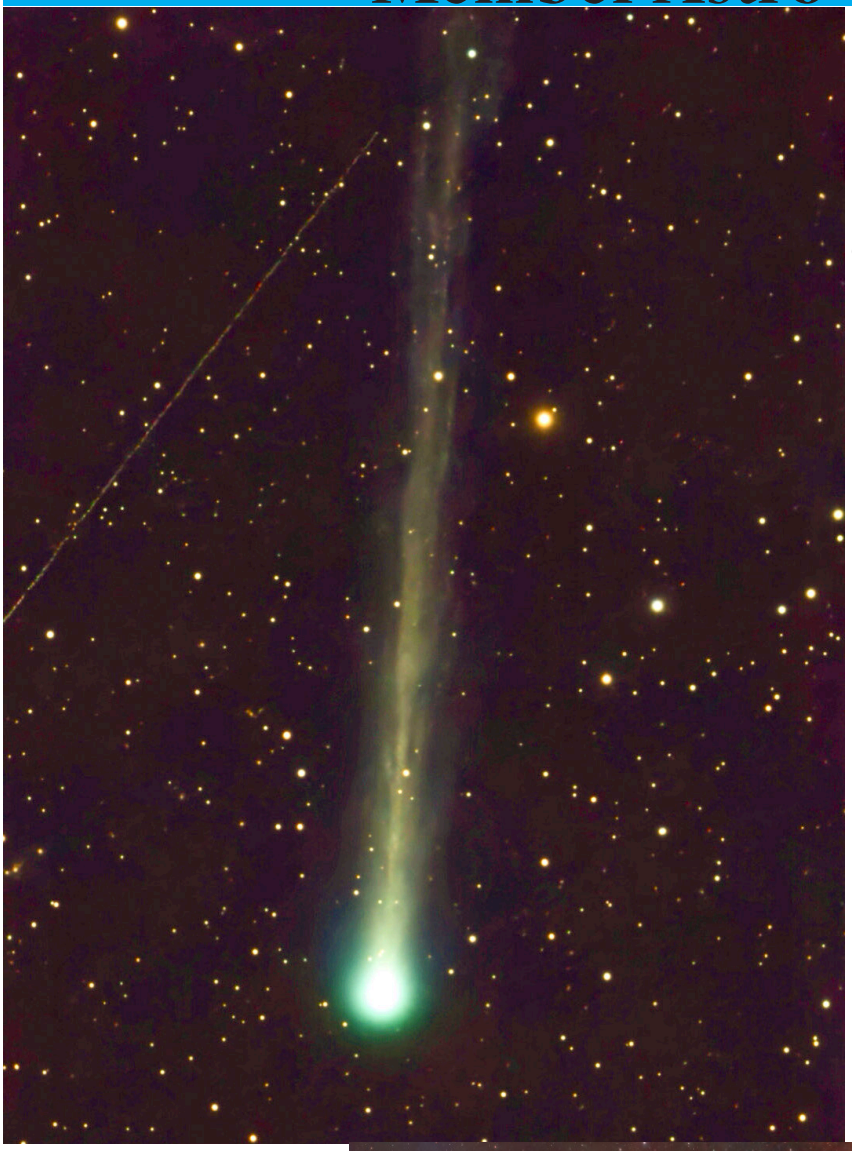
Topics: **Beginners' Corner** - Ask A Question
A Favorite Image (Not Mine)
Participants will share an astro-image they really like posted on the forum.
Image Sharing, Q/A
We will post Zoom details on the Forum before the meeting.

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 Spitzer

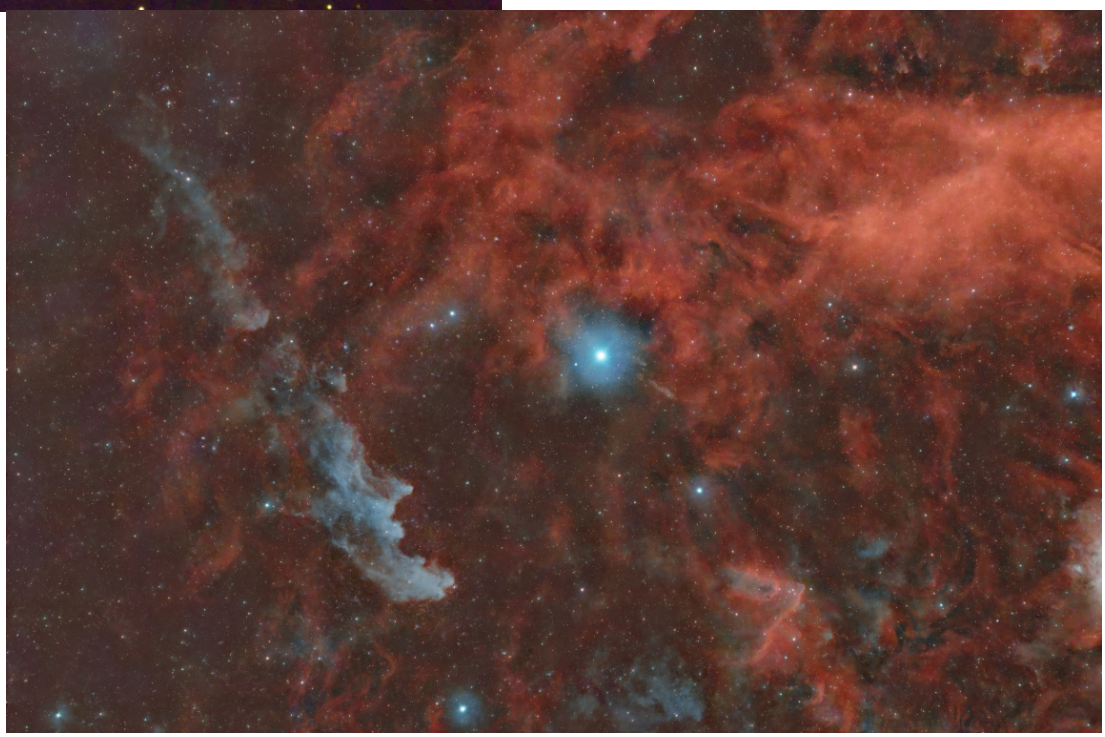
Comet R3 PanSTARRS

Seestar S50 smart telescope. 12 minute exposure of 10s stacked photos.

Craig Harding

Rigel and the Witchhead

Samyang 135mm lens and the ASI2600MC camera. Astrobin



Jeff Rothstein

NGC 1499

SHO with RGB stars, 5 hrs each of S, H and O, 30 min each on R, G and B.

David Gale

M101

C8 with Starizona reducer, 533MCpro, 6hrs of integration.

Allen Force

Sh2-261

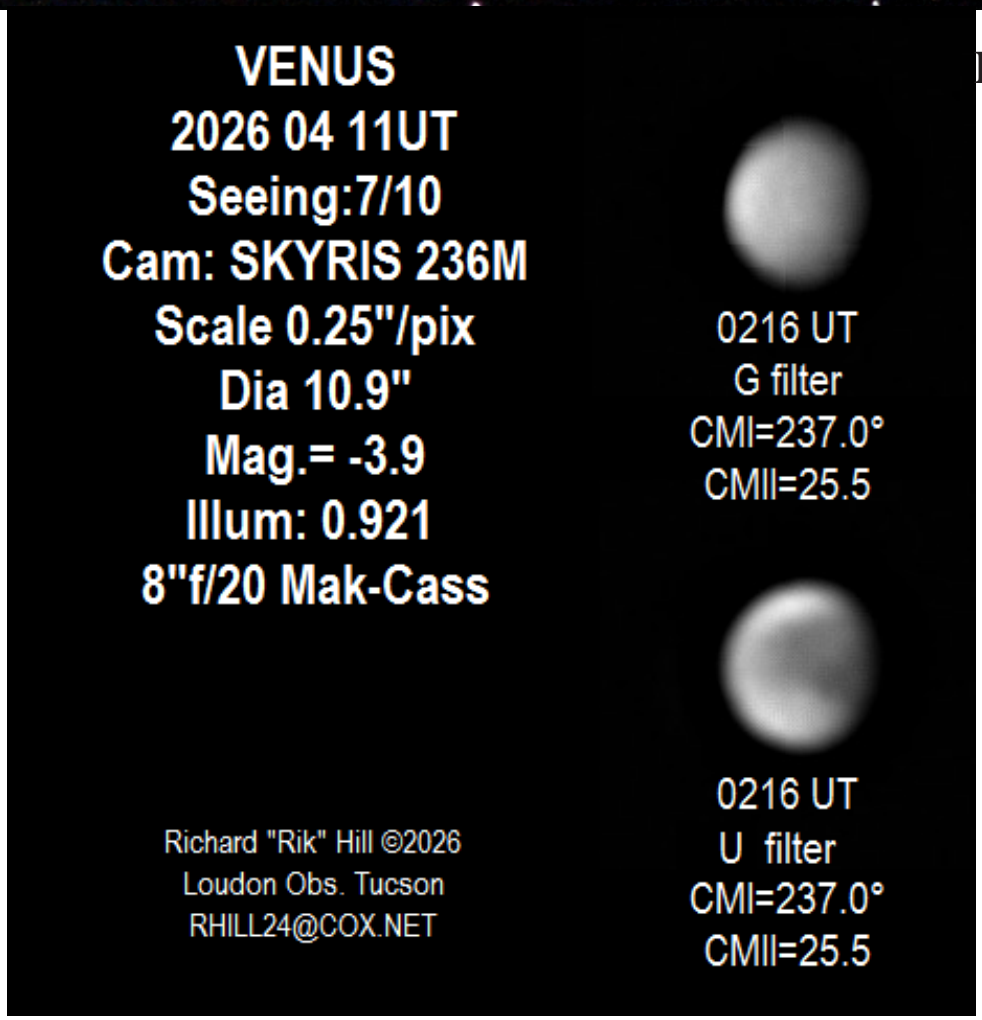
Astrobin

Alan Rockowitz

UGC 3697

M104

Rik Hill



Venus

David Stearn

IC 443 Askar SQA 55, ZWO 2600 MC Pro, Optolong LPara and Askar D2 for Narrowband, Antlia Triband RGB Ultra for the RGB Stars.

M81 & M82

Askar SQA 106.

Randy Smith

NGC 3344

Skywatcher 250P 10” Newtonian 572x90, 1.0 corrector, 585MC L-Pro camera, 14.8 hours.

John Tsantes

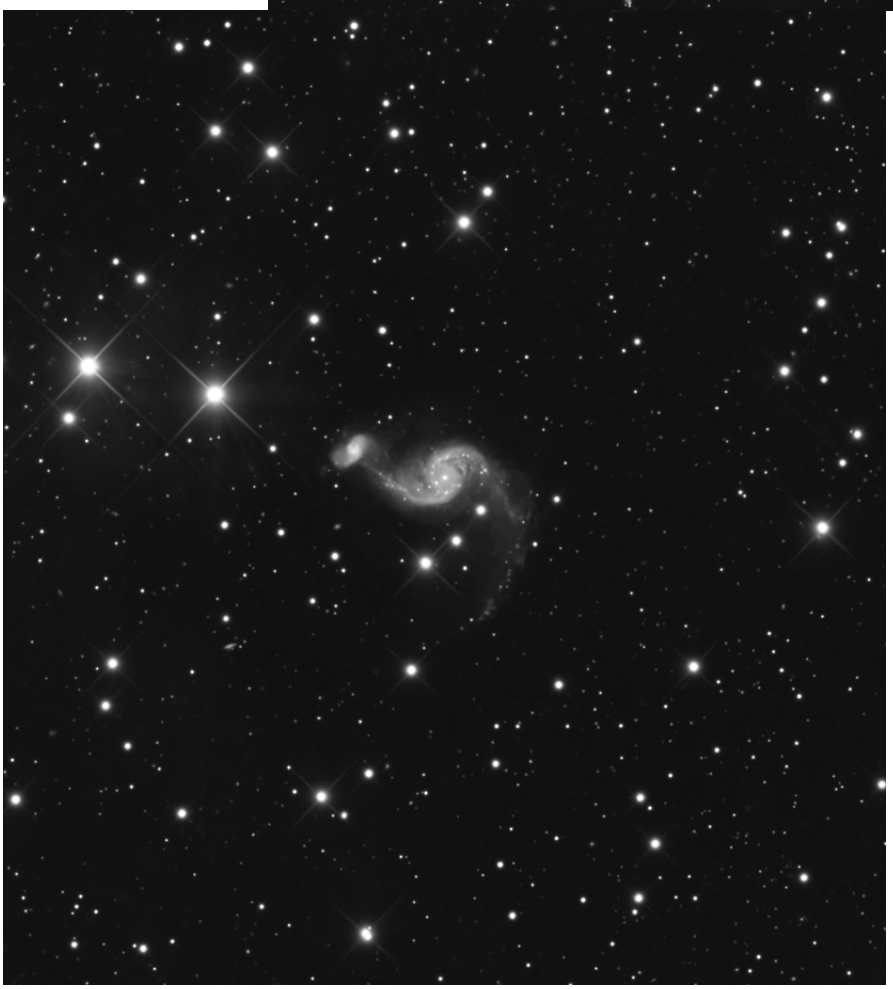
NGC 3486

Quattro 200p Telescope; ZWO2600mc pro camera, total integration: 14h 45m.

Arp 313

GSO RC 8” @ f/8. ZWO 2600MM camera, CEM 60ec mount, 4.0 hour exposure.

Tom Eby



Arp 82

GSO RC 8” @ f/8, ZWO 2600MM, CEM60ec mount, 5.6 hr exposure.

by Doug Smith

Observing Programs - What's Up in May and June 2026

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

Constellation Hunter Program – The following constellations are well placed for observing for May and June: Boötes, Canes Venatici, Coma Berenices, Corona Borealis, Draco, Leo, Leo Minor, Sextans, Ursa Major, Ursa Minor.

Messier Observing Program - The following Messier Objects are well placed for observation during May and June (listed in ascending RA): **Its galaxy time!**

M108, M97, M65, M66, M109, M98, M99, M106, M61, M100, M40, M84, M85, M86, M49, M87, M88, M89, M91, M90, M58, M68, M104, M59, M60, M94, M64, M53, M63, M51, M83, M3.

Lunar and Binocular Observing Program

Here is a list of dates for lunar phases in May and June:

New Moon: May 16, June 15
40 Hours waxing: May 18, June 17
72 hours waxing: May 19, June 18
4 days old: May 20, June 19
7 days old: May 23, June 21
10 days old: May 26, June 24
Full (14 days old): May 1, May 31, June 29
Gibbous: May 9, June 7
72 hours waning: May 13, June 11
40 hours waning: May 14, June 12

Solar System Observing Program

The following is a list of planets that can be observed during May and June:

Mercury is an early evening object during late May and all of June. This is a good apparition for Mercury. It sets as much as 1.75 hours after sunset during the first week of June, getting 25 degrees away from the Sun on June 15.

Venus continues to brighten and move further from the Sun in the early evening sky. By mid-June it is setting nearly 2.5 hours after the Sun. On June 17 Venus will be occulted by the Moon during the day.

Mars is rising earlier each day during this period. It is still an early morning object. On May 1st it rises around 4AM. On June 30 it rises around 2:30AM.

Jupiter is still visible in the early evening sky during May and June, but sets earlier each day. On May 1 it sets around midnight. On June 30 it sets around 9PM.

Saturn is an early morning object during May and June, rising earlier each day. On May 1 it rises around 4AM. By the end of June, it rises around midnight.

Uranus becomes an early morning object in mid-May. By the end of June it is rising around 2AM.

Neptune is an early morning object in May and June, rising about 20 minutes before Saturn.

Special Event: On June 17, Venus will be occulted by the Moon during the day.

Urban Observing Program

The following **deep sky objects** are well placed for observing during May and June:

Mel 111, M84, M86, M87, M104, M94, M64, M3

The following **Double Stars** are well placed for observation during May and June:

Zeta Ursae Majoris.

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**. 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, 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.

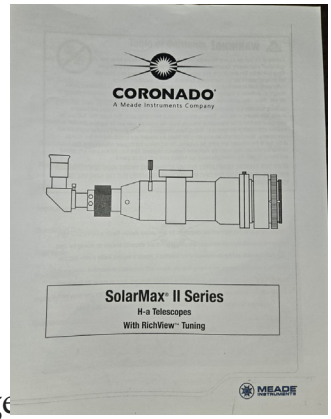
If interested in purchasing any of the listed telescopes, contact Douglas Smith at dsmith217@cox.net to discuss included accessories and pricing.

Member Equipment for Sale

- 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 Range
- Clamshell mounting ring
- Original manual

Price: $3,000 (or best reasonable offer)
Local pickup ONLY

Contact: Joe Gianninoto 520-908-3393 or email

2005-ish Discovery 12.5” Truss Tube Dobsonian

Full motorized GOTO and tracking
ServoCAT Gen 2
Argo Navis
Stalk to hold Argo Navis and hand paddle
Mirror re-coated in 2016 by Ostahowski
Light Shroud
New: I’ll throw in a Scopebuggy!

Lots of minor fixes and mods
Mechanically pretty good (but 20 years old)
Optically great!
Cosmetically a little rough

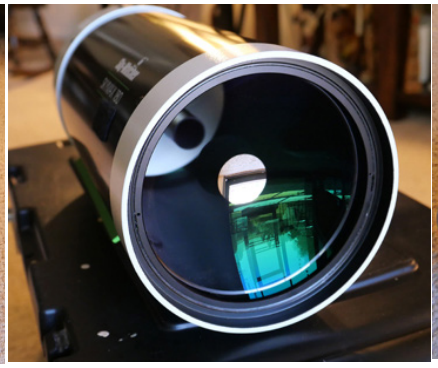
$900 or make an offer. **All funds go to TAAA**!
Pick up in Tanque Verde (I’ll deliver in area)
David Rossetter: Email 845-430-5191

Sky-Watcher 180mm Maksutov

I'm selling my rarely used Sky-Watcher **180mm, Maksutov OTA for $975**.

I've used it several times at TAAA star parties for amazing lunar images. I'm selling it because I just bought a 152mm APM refractor. Included are a case, a dewshield I made for it, and a RACI 6X30 finder and 2-inch diagonal(both not original to the scope

Steve Thornton. Please contact me via email. I live in Marana.



Skyward

By Dr. David H. Levy

May 2026

Moonrise

I awoke in the Midsummer not-to-call night, in the white and the walk of the morning:
The moon, dwindled and thinned to the fringe of a finger-nail held to the candle,
Or paring of paradisaïcal fruit, lovely in waning but lustreless,
Stepped from the stool, drew back from the barrow, of dark Maenefa the mountain;
A cusp still clasped him, a fluke yet fanged him, entangled him, not quit utterly.
This was the prized, the desirable sight, unsought, presented so easily,
Parted me leaf and leaf, divided me, eyelid and eyelid of slumber.

--Gerard Manley Hopkins, circa 1876.

The Moon is so much more than an object in the sky. It is a poem that echoes the cosmic thoughts of Hopkins, who was an experienced and passionate observer of the night sky.

The Moon is also a place. Twelve people have walked along its surface, some of whom saw mountains close by.

On the morning of July 20, 1969, 57 years ago, I was the astronomy teacher at Camp Minnowbrook on the west shore of New York's Lake Placid. The entire camp was in the auditorium as the Eagle spacecraft made its way to the surface of the Moon. The landing seemed normal enough although I sensed that Neil Armstrong and Buzz Aldrin were having some difficulty finding a flat landing site free of small craters. But we all heard the precious words, "Tranquility base. The Eagle has landed."

The rest of that day went normally, until dinner when the head counsellor announced an evening program of "free play." I approached him and suggested that the camp might want to watch the moon walk scheduled for that evening. "Mind your own business and do your job," he barked back at me. Sadly, I returned to our table.

Apparently the camp director, Lothar Eppstein, had overheard that conversation. He quickly rose and called for our attention. "Evening program is cancelled," he said. "We will all proceed directly to the auditorium from here. History is being made tonight and we all have a duty to witness it and be a part of it."

That evening, as we sat on our folding chairs, we watched a small, perhaps 12-inch black and white TV mounted on the auditorium stage. Walter Cronkite was in charge. He interviewed some interesting people, including a young Gene Shoemaker; it would be nineteen years before I would get the chance to meet him, and his wife Carolyn, in person. Some of it was quite serious; a lot of it was just fun.

Then after a few hours the picture suddenly changed to the "porch" of the lunar module. Armstrong was standing on it. The auditorium, filled with children as young as six or seven years old, went suddenly silent. Slowly, step by step, Armstrong descended the ladder and set one foot, then the other, on the Moon.

"That's one small step for a man,
One giant leap for mankind."

It was more than a major time in history. This was one of the pivotal, defining moments in the history of human civilization. I will never forget that night.

There have been other, more personal, defining moments in my own lifetime. The discovery of my first comet, on 13 November 1984, was one. And the discovery by the Shoemakers and me of the comet that would strike Jupiter was another. Those two times were private. Watching the moon walk was a joy I shared with 150 young children, and our whole world.

On Wednesday, 1 April 2026, Artemis II began its journey to the Moon. Its four astronauts represented different aspects of American society, including one Canadian. The mission commander was Reid Wiseman, its pilot Victor Glover. The two other mission specialists were Christina Koch and Canadian Jeremy Hansen. I met Jeremy in 2016 at the London general assembly of the Royal Astronomical Society of Canada, and have never forgotten him. Seeing him emerge from Integrity just a few moments ago was ecstatic.

Our world is going through trying times. But the continuing story of the travels we take to the Moon offers a rare moment of unity. No red countries, no green countries, just one gorgeous world. The other news shows us the world as it is. The Moon journeys show our world's possibilities. They show the world as it can be.

Montage of the March 3 2026 total eclipse of the Moon.
Used by permission of Mario Motta.

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.