TAAA Desert Skies Bulletin

Observing Our Desert Skies Since 1954

June 2026

www.tucsonastronomy.org

Membership Meeting

Friday, June 5, 2026 6:30PM

TAAA's next general member meeting will be held on **Friday, June 5, 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: **A Southern Arizona Dark-Sky Update: Trends, Challenges and Opportunities**

Presentation: Tucson has long billed itself as the "world capital of astronomy," and it is the origin point of the global dark-skies movement. Proactive efforts in public policy and lighting design practice have slowed the increase of regional nighttime light emissions relative to other parts of the Southwest, but population growth and economic development concerns put upward pressure on demand for artificial light at night (ALAN). Local dark-sky advocacy efforts aim to counter this trend with actionable goals for reducing ALAN consumption while enhancing nighttime community safety, security, and amenity. In this talk, John Barentine will review the state of affairs involving light pollution in the area and the efforts of DarkSky Southern Arizona to pursue effective solutions during the first three-year strategic planning term since the group's organizational 2023 reboot. In addition, John will describe the trends and opportunities that can strengthen our region's leadership on outdoor lighting issues.

Biography: John Barentine is the Principal Consultant at Dark Sky Consulting, LLC. He earned a Ph.D. in astronomy from the University of Texas at Austin and previously held staff positions at the National Solar Observatory, Apache Point Observatory, the Sloan Digital Sky Survey, and the International Dark-Sky Association (now DarkSky). He is a member of the American Astronomical Society and the International Astronomical Union, a Fellow of the Royal Astronomical Society, and co-founder of the Center for Space Environmentalism. His interests outside of astronomy and light pollution research include history, politics, law and current events.

Kitt Peak telescope domes silhouetted against skyglow from Tucson, April 15, 2026. *Credit: John Balentine*

Notes From The President

June 2026

by Ed Foley

Volunteers are at the heart of what makes TAAA a great organization. For more than 70 years we have inspired thousands of youngsters and members of the community with the efforts of our members sharing the wonders of the sky. For some members this is a key reason they enjoy their membership. For other members, it is the comradery they feel when attending our events, classes, or meetings that they look forward to.

When we reviewed the feedback from surveys for our planning session earlier this year, we saw the combination of these feelings expressed by the membership. One appeal in those surveys we saw time and time again was that we provide more opportunities for members to get together in more informal ways. We have thus made it one of our five priorities this year to encourage and support more social events for the organization. Like any activity we sponsor at TAAA, this will require volunteers to come up with ideas, share those ideas to test their appeal, and narrow them down to a select few to be pursued. To make an event successful will require organizing the event, getting the support of volunteers to carry it out, communicating the plans, getting financial support if necessary, and carrying out the plans to make sure the event is executed. This is no small task and will take the commitment of volunteers for which we usually have no shortage. We do have one member, who has come up with a good list of ideas, but he will need a group of helpers to follow them through to successful events. I am appealing to you to consider helping this effort. If you can help as part of a social committee please let me know at the email, below.

Ed

President: Ed Foley
president@tucsonastronomy.org

Vice-President: David Rossetter
vice-president@tucsonastronomy.org

Secretary: Keith Schlottman
secretary@tucsonastronomy.org

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treasurer@tucsonastronomy.org

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Stephen Ferris mal1@tucsonastronomy.org
David Eicher mal2@tucsonastronomy.org
Gus Gomez mal3@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

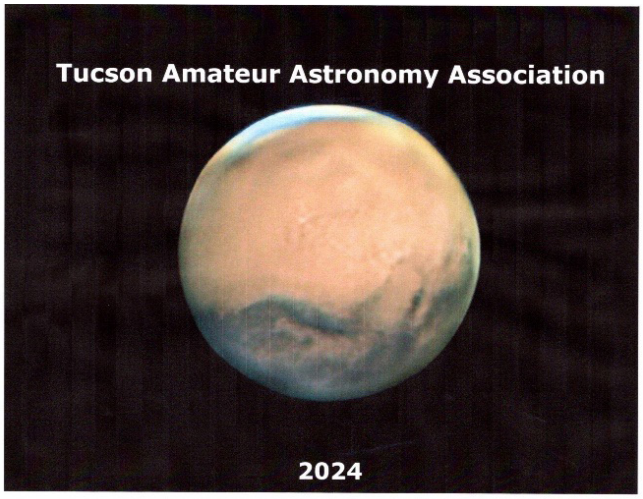
Special Gift to TAAA Endowment

In the March Desert Skies we shared the details of the Asset Reserve Study of our two dark sites. The study outlined the need to fund ongoing maintenance and repairs at our sites totaling more than $250,000 over the next 10 years. This may sound daunting at first, but we have a plan!

During our TAAA planning session in February, we identified ongoing funding needed as one of our key goals. If we grew an Endowment Fund to a sufficient level, the distributions from the fund could provide funding for years to come. The team set an audacious goal to raise $750,000 by the 75th anniversary of TAAA in 2029. We are one step closer to the goal this month.

The Southwestern Foundation for Education and Historical Preservation has been a great supporter of TAAA. They were the first foundation to give to our project to build sleeping rooms at the CAC site, providing members and school groups a place to stay after a night of observing. Then in 2023, they went on to approve a grant to support our Astronomy Camps, enabling more students to be inspired by the dark skies of Arizona. This year, in recognition of our need to maintain the sites in the years ahead, the foundation has approved a gift of $25,000 for the endowment. This gift will bring the endowment to over $60,000.

We will look to the support of member gifts, community foundations, and bequests as we strive to secure the financial future of TAAA with the TAAA Endowment Fund.



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.

NVRC

Nomination and Volunteer Resource Committee

The TAAA Annual Leadership Election was concluded during the last member meeting on May 1st. Results reported to the membership in attendance included **Mike McDowell elected as Treasurer, Keith Schlottman as Secretary, Dave Eicher and Gus Gomez as Board Members-At-Large, and David Pass and Terri Lappin as members of the NVRC**, all for 2-year terms set to commence on June 1. A hearty thank you to Bob Reynolds, John Kalas, and John Christensen having all recently served in Board and NVRC positions over the past six years along with Mae Smith who just finished her term as Immediate Past President.

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, Dave Pass, Connor Justice, and Terri Lappin.

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 four or five-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 of our events are single-scope and the other half are multi-scope. So if you are not yet comfortable doing events on your own, you can start on the multi-scope. I have about ten active volunteers and occasionally must turn away events because no one is available. I would love to have your help.

If interested, place contact Jim Knoll at stargazing@tucsonastronomy.org.

Thanks!! Jim Knoll

Loews Ventana Canyon (JD Metzger, Jim Long, Jim Knoll)

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, June 18

Ni's Asian Bistro

7665 N La Cholla Blvd
(W side of LaCholla just S of Magee
Walmart Shopping center next to Wendy's)

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

RSVP Susan 520-780-0136

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.

Astronomical League Observing Awards for May 2026

by Doug Smith

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

David Sharp – Messier Observing Program - Gold

Happenings at TIMPA Spring 2026

Stephen Ferris, TIMPA Director, timpadirector@tucsonastronomy.org

The last few months have seen a lot of activity at TIMPA, peaking with our first smartscope-oriented potluck on May 9, which was attended by about 25 people with almost as many Seestars. We hope to have another large event in the fall, possibly on or around Halloween. Seestars and other smartscopes are becoming quite common at TIMPA, and we're eager to host them year-round.

May and June represent the end of the regular observing season, with the monsoon being right around the corner along with its cloudy nights. However, there are several projects that will be ongoing over the summer. The first is to update the on-site signage, a goal which we hope to achieve no later than August and hopefully much sooner. The signs are to help new visitors find their way in and out of the site in the dark.

We're also considering several changes and upgrades to the Gila Monster observatory which we will be reporting on in the coming months. Inputs from interested parties are always welcome. The Gila Monster hosts our venerable 14" David and Wendy Levy Meade Telescope that has been on site for almost a decade and a half. The observatory has fallen into disuse since the installation of the TIMPA 16, and we are looking for ways to increase interest in the facility.

Another short-term priority is the identification and training of two or three telescope operators for the TIMPA 14" and 16" for scheduled star party nights. These individuals must be willing to operate the telescopes for other participants on scheduled TIMPA nights several times per year. As always, users interested in being trained for individual use are also more than welcome, but I would like to have star party operators ready and in place by September, if possible. Please contact me at timpadirector@tucsonastronomy.org if you are interested.

Finally, TIMPA has been tasked with an important part of our club's Strategic Goal of "Facilitating the Wow", and while our Seestar and smartscope events are an important part of that effort, we also hope to make the site more available to new audiences in astronomy. TIMPA currently has two large visual-use telescopes available and is working to have at least one good quality imaging setup available on site by fall.

At this point, we are looking to make contact with college-age students interested in using the site in the future. If anyone knows of any groups of that nature, please contact me at timpadirector@tucsonastronomy.org.

TIMPA events are scheduled through June. We hope to see you there!

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

June 5-6
June 12-13

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
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*
Oct 31-Nov 1; Nov 6-7	November 8	November 6-7
December 4-5; 11-12	December 8	December 4-5

by Jim Knoll

Upcoming CAC Weekend Dates (Friday - Saturday)

June 12-13 (New Moon June 14)

We had another great turnout during the May CAC weekend. Weather was good and provided a fantastic observing opportunity from our Bortle 2 complex. We had around 35 members over the weekend, with almost all sleeping rooms and most of the RV spots filled. Most of the main pads were filled as well as several member-leased pads and the large circular amphitheater pad. The sky and seeing were exceptional Friday evening. Saturday was pretty good as well. Several members trained/certified on the 40-inch (2) and the 18-inch Obsession (4). These scopes were used both Friday and Saturday and available for observing. 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 weather for the June CAC weekend (12-13) should be another awesome opportunity. We typically have our large telescopes operating Saturday evening (pending operator availability).

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.

by Bernie Stinger

June 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 June 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 May 25th. **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

June Event still in need of Volunteers

Saturday – June 13 – FARWEST TUCSON
Arizona-Sonora Desert Museum
2021 N. Kinney Road
Age/Grade Level: All ages
Participants: 250
2 Additional Scopes Needed
Setup Time: 7:30 pm (they may want volunteers on site at an earlier time)
Start Time: 8:00 pm. End Time: 10:00 pm.

June Event Filled, No Volunteers Needed

Thursday – June 18 – – Far Southwest Tucson
Pascua Yaqui Tribe – Sewa U'usim Program
Mochik (Tortuga) Ranch
3300 S. Marstellar Rd.
Age/Grade Level: 11 – 19 yrs
Participants: 25
0 Scopes Needed
Setup Time: 7:30 pm. Start Time: 8:00 pm.
End Time: 9:00 pm.

Binocular Group Activities

The binocular group is really starting to heat up with many members logging their equipment, including type and size of binoculars, mount, and any observing chairs.

Jimmy Long tries out his Gravity chair and clamp arm in Redington Pass

Observing in Redington Pass

Observing

Many of us have begun observing in earnest. We had two get-togethers at our Middle Tanque Verde Recreation area site in May. The skies cooperated those nights and the Moon set soon after dark, so we were able to observe many Messier objects.

Astronomical League

Thomas Watson is really knocking out the double stars and wrote:

"*Observed a few of the tighter and more challenging double stars from the AL Binocular Double Star list, last night, using the 20x80 binocular. 17 Draconis the first success of the night, a well-matched pair of fairly bright, cold white stars. Next was Iota Boötes. The warm white tone of the brighter member rendered the companion star a grayish spark that, in moments of iffy seeing, was hard to see in the sparkle from the brighter component. Also in Boötes, I found STF 1850 just south of the waist of the broken kite asterism. Both stars were white, rather faint, very close to each other, not quite equal in magnitude. In Hercules, Kappa Herculis was a pair of warm white stars with a hint of gold. There was a distinct difference in magnitude. Last for the night was STF 1740 in Virgo. This is a tight pair of white stars, even for the 20x80. If the seeing hadn't been very good, I might not have managed this observation. This AL program requires a minimum of 50 observations. I'm at 57, now, but I'm enjoying this project too much to stop now.*"

So far, we have made many observations for the 12 or so binocular-related Astronomical League programs. Tom has inspired us all to get cracking.

Many of us, including Jeffry Johnston (42), Jimmy Long, (16), Thomas Watson (24) are knocking out the Messier objects in the AL Messier Binocular observing program. We'll soon have our 50, but almost everyone wants to keep going!

	Astronomical League Binocular Program											
Group Member	Binocular Double Star Observing	Advanced Binocular Double Star	Binocular Messier Observing	Binocular Variable Star Observing	Deep Sky Binocular Observing	Galileo Observing	Lunar Observing	Sky Puppy	Solar Neighborhood Binocular Observing	Solar System Binocular Observing	Southern Skies Binocular Observing	Binocular Master Observer Award
REQUIREMENTS	50	50	50	60	60	13	100	62	10/30/0100	25	50	8
Completed (All observers)	57	0	82	0	0	0	8	0	0	0	0	0

Doug Smith gave us an excellent presentation during our meeting on May 28th. We learned the 'right' way to gather data and report it. Thank you, Doug. You should see many of us standing up in front of the room gathering pins and certificates in the fall.

Around Town

We've started bringing and setting up our binoculars at star parties to encourage folks to start looking up and that it isn't expensive to get started. Here are some examples:

Jim Knoll has his superb Meade F6.5 8" SCT set up next to the pool. You can forget about dark vision adaptation; he had some eyepieces that cut right through it. After all, one-eyed telescopes are for pirates. (Arrrr Jim)

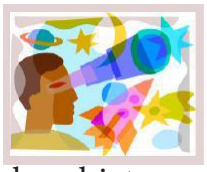
Jimmy Long running his Celestron and Oberwerk 20x80 Binoculars at Ventana Canyon.

Here Jimmy Long and Jim Knoll are at Ventana Canyon on May 21st. It seemed that light pollution was no one's concern. But we had a lot of interested guests looking at brighter objects like the moon, Jupiter, Venus and M13.

Anyone can join in the activities for the binocular program. Simply send an email to Jimmy or Jeffry and we'll add you to the list. We have an upcoming observing session on Friday, June 4th in Redington Pass, Middle Tanque Verde Recreation area.

Here's Bernie Stinger at Dietz Elementary, conducting a Solar Observing session with his giant 127mm Vixen binoculars

Special Interest Groups



Starry Messengers Special Interest Group

Opening Minds to the Universe

The SMSIG will take a hiatus over the summer months. There are several non-telescope outreach opportunities over the summer which we'll support. They are listed below. To sign up for these events, go to https://volunteersignup.org/TEJTM.

- 6/6/2026 (Sat) 5:00 PM - 8:30 PM Pima Air & Space Museum Fright Night (Valencia/Wilmot) any toolkit. Volunteers: **Need at least two volunteers**
- 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**
- 7/20-24/2026 Discussions are underway with Marana Unified School District to support their Space Themed Summer Camp the week of July 20-24 at Coyote Trail Elementary and Butterfield Elementary schools. There will be many students and they'd like activities at both schools. **Several volunteers are needed.**

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).

Radio Astronomy SIG (RASIG)

by Sandy Nichols

The next RASIG meeting will be **Wednesday, June 17** 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.**

Email Sandy Nichols for the Zoom if you do not already have it. RASIG on the Web

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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, June 11, 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, June 15 at 7:00 pm** via ZOOM.

Topics: **Beginners' Corner** - Ask a Question
An Advanced Look at NINA's Advanced Sequencer, Part I - Jeff Rothstein
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

Steve Thornton

Hercules & Atlas; Celestron 9.25 SCT on a Celestron CGEM DX, ZWO ASI290 Monochrome.

Martin Hale

Comet 2025 R3 PanSTARRS

11 inch, F1.9, hyper star, ASI air, 2600 duo, Celestron GSXL, 300 seconds, Post-processed only on Apple iPhone.

David Stearn

Rho Ophiuchi

Askar SQA55, ZWO 2600 MC Pro, ZWO AM5N No filter.
308 180s subs captured over 6 nights.
Astrobin

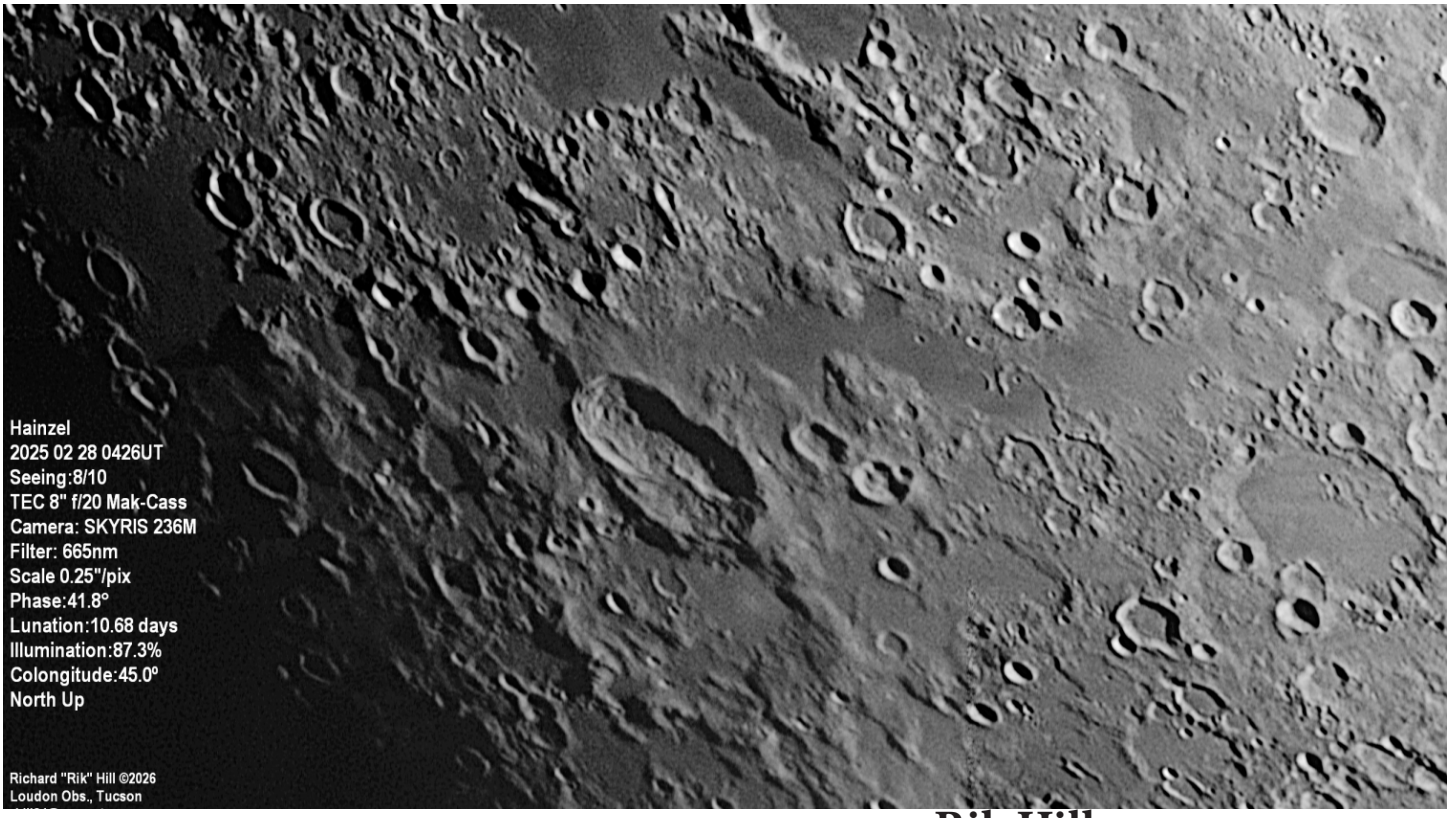
David Stearn

NGC 2442 & 2443

Astrobin

Allen Force

M83 Astrobin

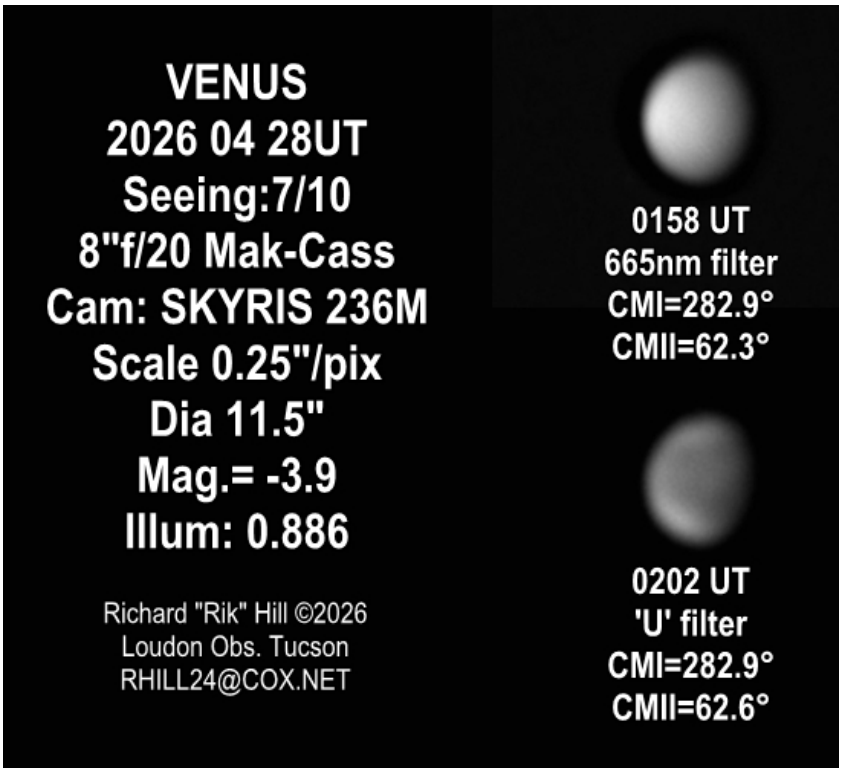


Lunar Figure 8 **Rik Hill**

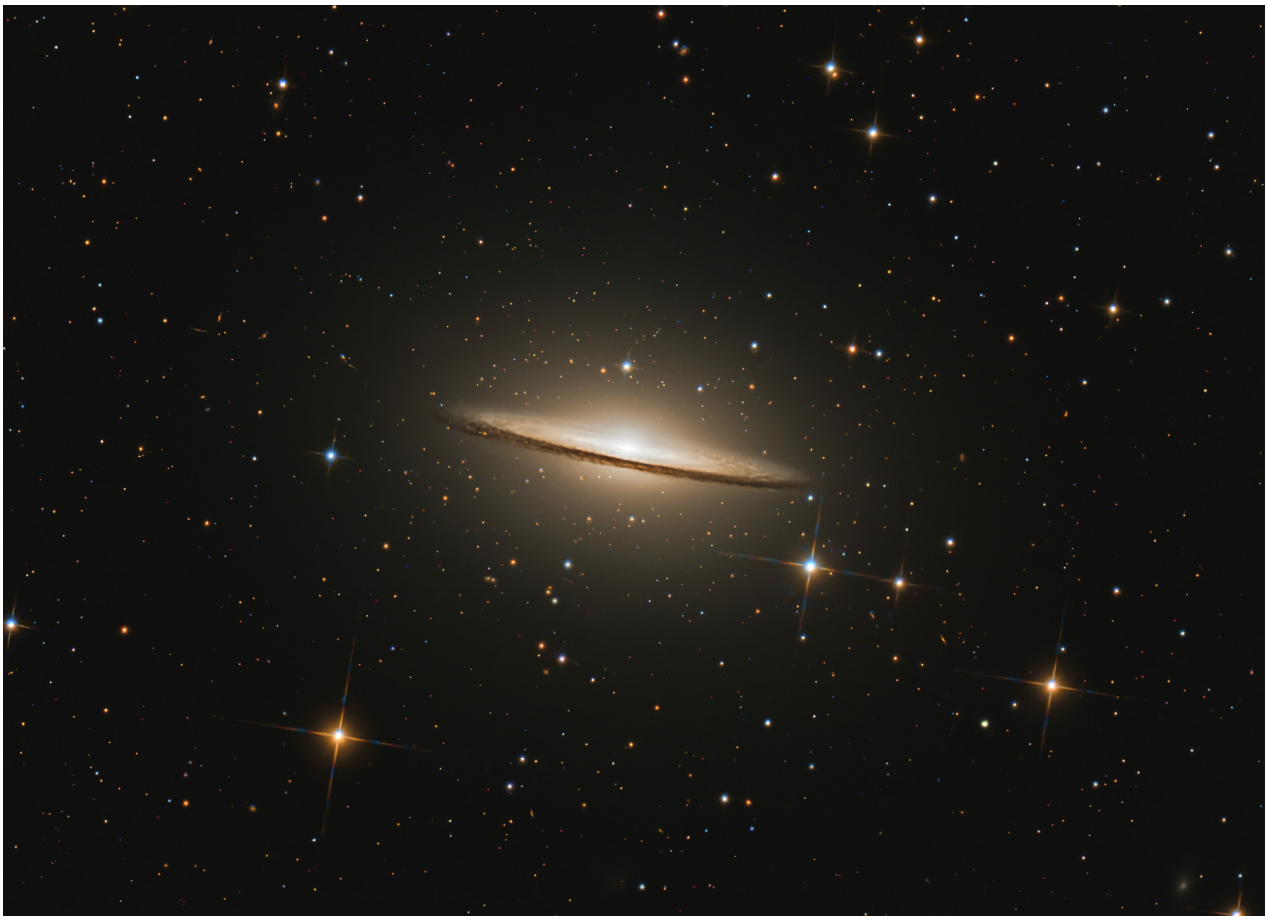
The figure-8 shaped crater, Hainzel is roughly near the center of the image composed of 3 different overlapping impacts. The northernmost crater, last formed and thus the sharpest and less eroded one, is Hainzel A (diameter 55 km) a rather young crater by lunar standards only 1.1-3.2 billion years old, formed in the Eratosthean period. This crater sits to the north on top of a much older crater Hainzel, from the Nectarian period (3.85-3.9 b.y.o.) that is larger at 71km dia. Then east of a line between the centers of these last two is a third crater, Hainzel C (28x19km in size) formed in the Imbriam period (3.2-3.85 b.y.o.).

South and west (lower left) of Hainzel is the large, badly eroded crater Mee (136km) of Pre-Nectarian age (3.92-4.55 b.y.o.). The eastern wall of this crater seems to combine with other material to form a large mountain ridge that runs south. The south wall of Mee seems to be ejecta splattered further to the south. Northeast of Hainzel is a small winding flat mare-like area, Lacus Timoris that winds its way from Hainzel to Haidinger (22km) that has to smaller craters next to it to the northeast and southeast, Haidinger A (9km) and Haidinger B (10km) respectively. Another such mare-like area like L. Timoris can be seen in the upper left corner of this image deep in shadow. This is Lacus Excellentiae. Where Lacus Timoris intersects Hainzel a couple thin rimae can be seen heading north from Hainzel. These are the southern terminus of the Rimae Ramsden that begin in and near the crater Ramsden just off the upper edge of this image.

The large crater on the right edge of this is Wilhelm (111km), as old as Mee but in much better shape with less overlain recent impacts and ejecta infill. Note the interesting striations on the floor of Wilhelm.



Venus



M 104

Astrobin

12h 18m, Sky-Watcher Quattro 250P / 10-S, ZWO ASI585MC Pro, Sky-Watcher CQ350 Pro, Optolong L-Pro 2"

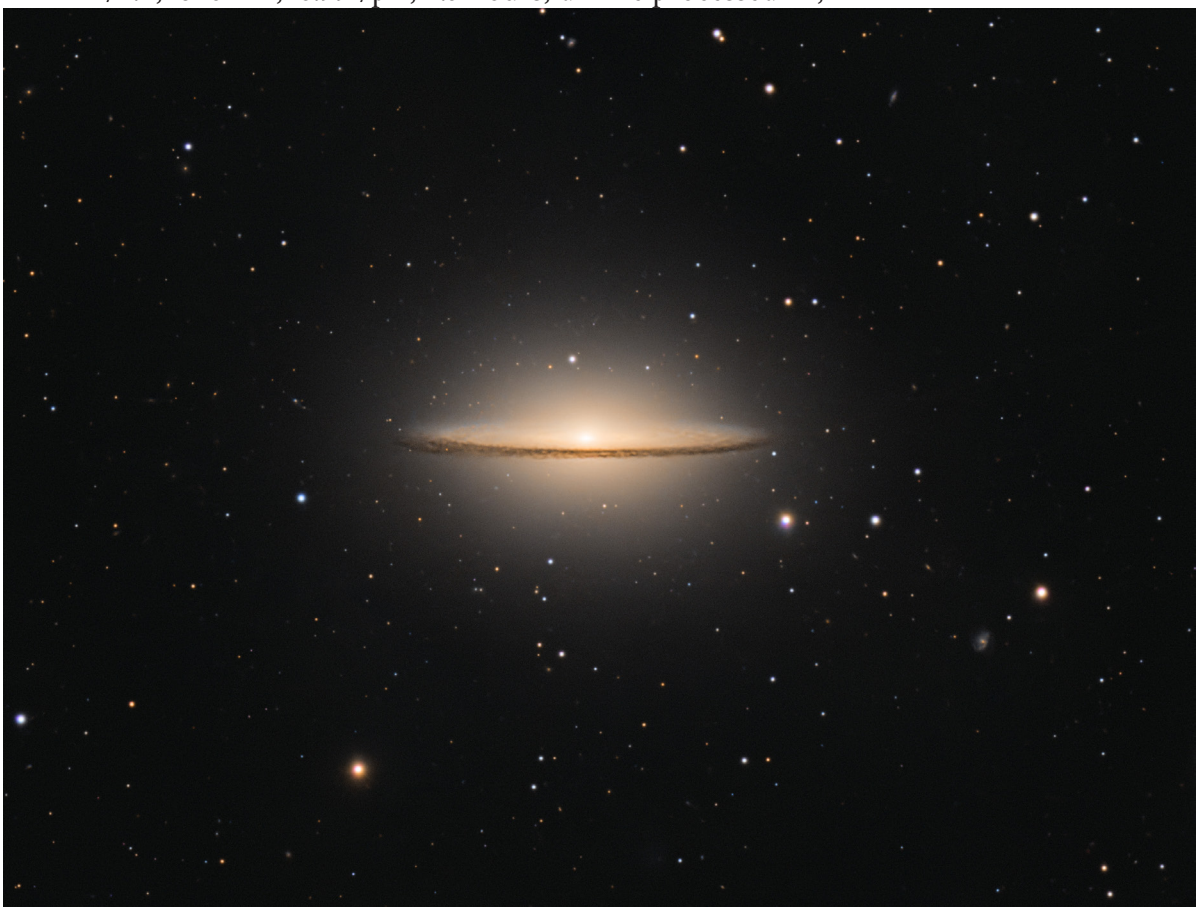
Randy Smith

NGC 5248

Astrobin

NGC 3166 - RASA 11" f/2.2, 620mm, 0.99"/px , 4.3 hours, drizzle processed 2x, 1 min, no filters.

Tom Eby



M 104

C11 Edge f/7, ZWO2600MC Pro, 1.2 hours, 1960mm.

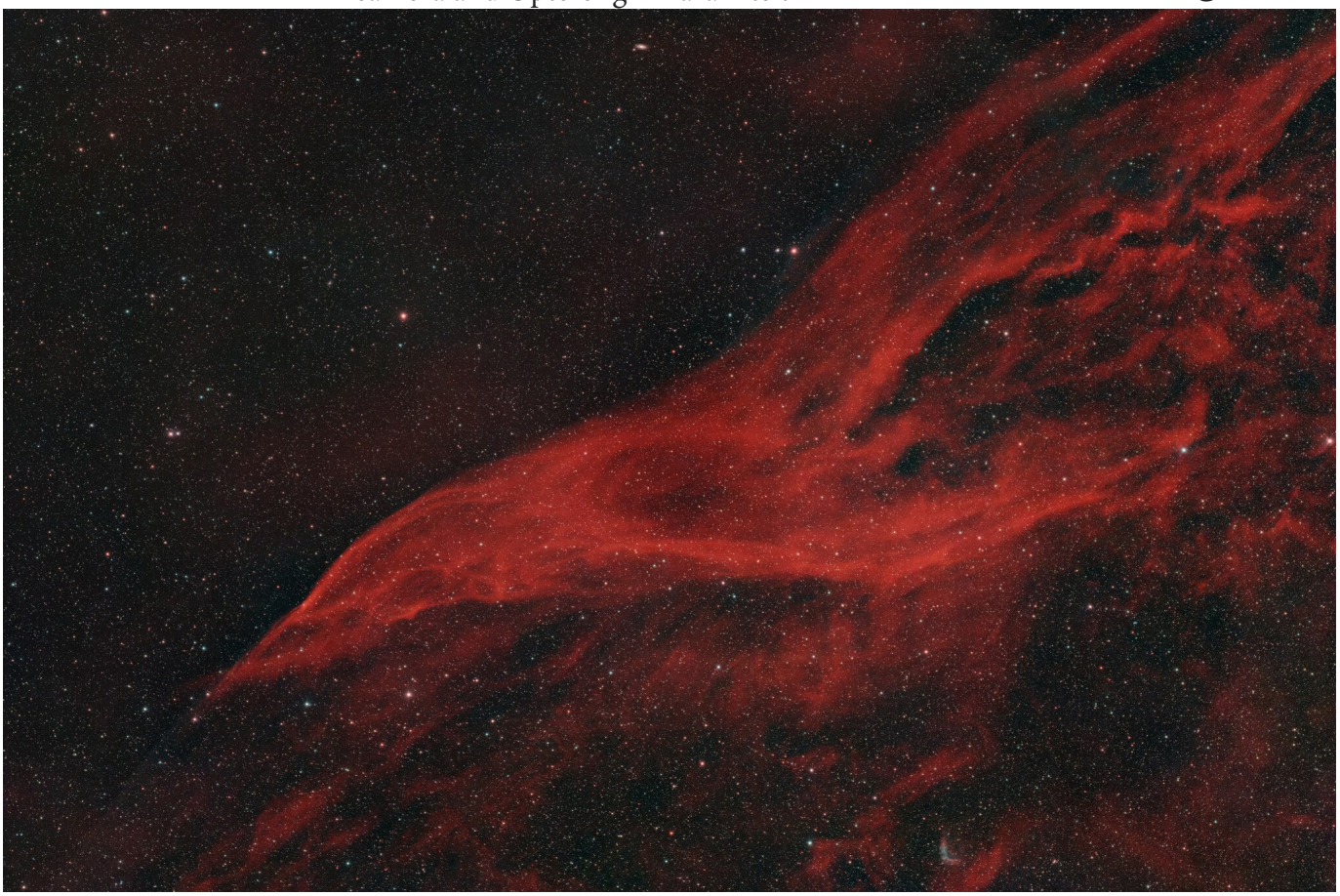
Ed Jacoby

Arp 297

125 x 180 exposures, 850 mm at f7 Astrobin

Craig Harding

LBN 1077; Samyang 135mm lens with an ASI2600MC camera and Optolong L-Para filter.



Jeff Rothstein - **IC 443 & Sh2-249**; 105mm Traveler, 6200MM Pro and Antlia Pro V filters. HOO with RGB stars.

Richard Spitzer

Lyrid meteor and satellite flare 3:58 am, 4/22/26. Nikon D7500 DSLR, f/3.5, ISO 3200, 18 mm lens, 10 s.

Sh2-27

Explore Scientific 127 Triplet, ZWO ASI2600MM 4.5 hrs,

Astrobin

Mike Mulcahy

NGC 4038

Planewave CDK 12.5, ZWO ASI6200MM 10.5 hrs,

Astrobin

by Doug Smith

Observing Programs - What's Up in June - July 2026

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

Constellation Hunter Program - The following constellations are well-placed for observing for June and July:

Boötes, Canes Venatici, Coma Berenices, Corona Borealis, Draco, Hercules, Serpens Caput, Serpens Cauda, Ursa Minor

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

M53, M63, M51, M83, M3, M83, M101, M102, M5

Lunar and Binocular Observing Program

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

New Moon: June 15, July 14
40 Hours waxing: June 17, July 16
72 hours waxing: June 18, July 17
4 days old: June 19, July 18
7 days old: June 21, July 21
10 days old: June 24, July 24
Full (14 days old): June 29, July 29
Gibbous: June 7, July 7
72 hours waning: June 11, July 11
40 hours waning: June 12, July 12

Solar System Observing Program

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

Mercury is an early evening object for all of June and the first week of July. It reaches its greatest elongation on June 14, setting about 90 minutes after sunset. It becomes an early morning object during the last three weeks of July.

Venus is an early evening object during June and July. It continues to get larger and brighter each day.

Mars is still an early morning object during this period. On June 1 it rises around 3AM and on July 31 it rises around 1:30AM.

Jupiter is setting earlier each day but is till visible in the early evening sky. It sets around 10:30PM on June 1. It goes behind the Sun and becomes an early morning object in late July. By July 31 it is rising 15 minutes before sunrise.

Saturn is rising earlier each night. It is still a late night object. On June 1 it rises around 2:30AM. On July 31 it is rising around 10PM.

Uranus is an early morning object. On June 1 it rises around 30 minutes before the Sun. On July 31 it is rising around midnight.

Neptune is a late evening object in June and July. It rises at about 20 minutes before Saturn.

Urban Observing Program

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

M3, M5.

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

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

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.

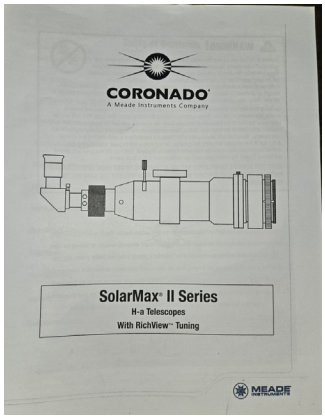
If interested in purchasing any of the listed telescopes, contact Douglas Smith at dsmith217@cox.net to discuss included accessories and pricing.

Member Equipment for Sale

- 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!

Solar Telescope For Sale



SolarMax II 90
Double Stack

Comes with:

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

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

Contact: Joe Gianninoto 520-908-3393 or email

OzSky / Australia

by Tom Reinart

This March I had the pleasure of attending the OzSky Star Safari (https://ozsky.org) in Coonabarabran, NSW, Australia. Coonabarabran is about 300 miles west of Sydney and advertises itself as "The Astronomy Capital of Australia." It is home to the Sliding Springs Observatory, a Southern Hemisphere optical observatory which is reminiscent of Kitt Peak Observatory in Arizona. The observatory is located within the Warrumbungle National Park, an area of low mountains and high biodiversity. Coonabarabran is located on the border of Australia's agricultural land (sheep and cattle) and the beginning of the Outback. The land and the town actually remind me of west Texas, and incidentally, the organization that runs OzSky has

connections with the Texas Star Party. To get to Coonabarabran, most people fly or take the train from Sydney to Dubbo, rent a car (which you will need, with a kangaroo guard) and drive two hours to Coonabarabran.

The purpose of the OzSky Star Safari is to introduce North Americans to Southern Skies. The star party is located at the Warrumbungle Mountain Hotel, a motel unit with fields adjacent for observing. OzSky rents out the entire hotel. The sleeping units are dormitory style and dinners are catered. There were 35 attendees and fifteen Australian hosts. Many people elect to stay closer to town. I rented an AirBNB nearby which provided me a more comfortable stay within a ten-minute drive. (You do need to avoid kangaroos on the roads at night; I had two close encounters.)

OzSky provides a series of large Dobsonian telescopes for visual observing. However, a number of the Australians bring astrophotography set-ups and guests are increasingly bringing smart telescopes or small astrophotography set-ups. (I brought a Dwarf 3.) The skies are a solid Bortle 2. While the area is dry, there can be clouds. We had good observing 4 of 7 nights. I extended my stay on both ends and had 6 of 10 nights clear. 60-70% clear is about average (2025 was very cloudy). There are guest speakers each afternoon (I spoke on DarkSky International.) The group consists of serious amateurs, a number pursuing Astronomical League lists, and the camaraderie is good. Most of the Americans attending came from the Western U.S. The flight to Sydney from Los Angeles is a long 15-hour haul. The Australians are knowledgeable and helpful hosts.

The Southern skies in March are impressive. The Milky Way basically spreads from horizon to horizon. Around midnight I could observe Orion setting and Scorpius rising, with the core Milky Way in between. The central Milky Way is extraordinarily bright, with the dark cloud Emu, the Coal Sack, Eta Carinae, and the Tarantula Nebula as the major sights. Both the Large Magellanic Cloud and the Small Magellanic Cloud are impressive. And 47 Tucanae and Omega Centauri are the major globular clusters. I had good luck imaging with my Dwarf 3, but also enjoyed binocular observing. I did some Dobsonian observing, but that was not my preference.

Good astro-tourism requires the availability of daytime activities. I spent almost six hours touring the Sliding Spring Observatory, which has impressive telescopes, a great history, and an informative small museum. Warrumbungle National Park provides ample wildlife and bird observing and hiking. The nearby Pillaga National Forest also has great hiking and Aboriginal cultural sites. Coonabarabran has a small mineral museum and a riverside park that are worth exploring, and some shopping and restaurants.

Visiting Australia is a big investment of time and money. In addition to Coonabarabran, it makes sense to spend time in Sydney, which is a wonderful port city requiring at least three or four days to explore. But the major draw of the trip is experiencing Southern skies, which did not disappoint.

If anyone has more questions about visiting Australia, I would be glad to answer.

Small Magellanic Cloud and 47 Tucanae by Tom Reinert

The Common Night

Reclaiming our Shared Horizon

By Ruskin Hartley, CEO of DarkSky International

This past Saturday, under the dark sky of the new moon, I drove into the Rincon Mountain District of Saguaro National Park. It's only five minutes from my home, but it feels like another world. Standing in the quiet desert, I looked to the east. The sky was magnificent. Scorpius was rising over the peaks, its beating red heart, Antares, burning clear and bright against a deep, velvet backdrop. It was a reminder of why we do this work—and a testament to why Saguaro National Park was officially designated as an International Dark Sky Park.

Then, I turned to the west.

Looking back toward Tucson, the dome of artificial light washed across the horizon, erasing the very stars I had just been admiring. It was a stark reminder that while Tucson does exceptionally well compared to other cities of our size, we still have a long way to go.

The story of the dark sky movement began right here in Tucson. The same visionaries who incorporated the TAAA, like Dr. David Crawford, also co-founded DarkSky International (formerly the IDA). They realized that the telescopes at Kitt Peak and in our own backyards were only as good as the lighting on the ground. Today, DarkSky has grown into a global movement supporting advocates in over 70 countries—but with this new column, we are coming back to our roots.

Not "lights out," but "lights better"

From the very beginning, our founders were clear: this movement is not about saying "no" to light. It is about a practical, shared reality. Humans need light for safety, commerce, and community. That ethos continues today in our Responsible Outdoor Lighting at Night (ROLAN) principles.

We aren't asking our neighbors to live in the dark; we are advocating for responsible light. The solution to the "sky glow" I saw over the Rincons is simple: smart, targeted lighting that protects the night sky while supporting human needs at night.

The problem on the ground

As amateur astronomers, it is easy to become passive or outsource advocacy, relying on smarter filters, better imaging software, or remote telescopes to "fix" the problem. But the amateur astronomy community needs to be the frontline of protecting the night, not just its observers.

We cannot control every light in the city overnight, but we can absolutely control the lighting in our own zip codes, starting with our own properties. Let's clean up our own doorsteps so that when we look up, we see stars—not our own wasted energy.

Call to action: The home lighting assessment

This month, I am asking every TAAA member to lead by example. Before your next observing session, take five minutes to conduct a **DarkSky home lighting assessment** on your own property.

1. **Is it useful and targeted?** Every light should have a clear purpose and be directed exactly where it is needed. Ensure your fixtures are fully shielded and pointing straight down so light doesn't spill into the sky or your neighbor's yard.
2. **Is it low level and controlled?** Keep the brightness to the minimum amount necessary for the task, and make sure the light is only on when needed by using timers, dimmers, or motion sensors.
3. **Is it a warm color?** Check your bulbs. Limit harmful blue-violet light by using warm-colored LEDs or amber bulbs rated at 3000K or less.

Download the checklist at darksky.org/get-involved/home-lighting-assessment/. Let's ensure that the birthplace of the dark sky movement remains its brightest example of stewardship.

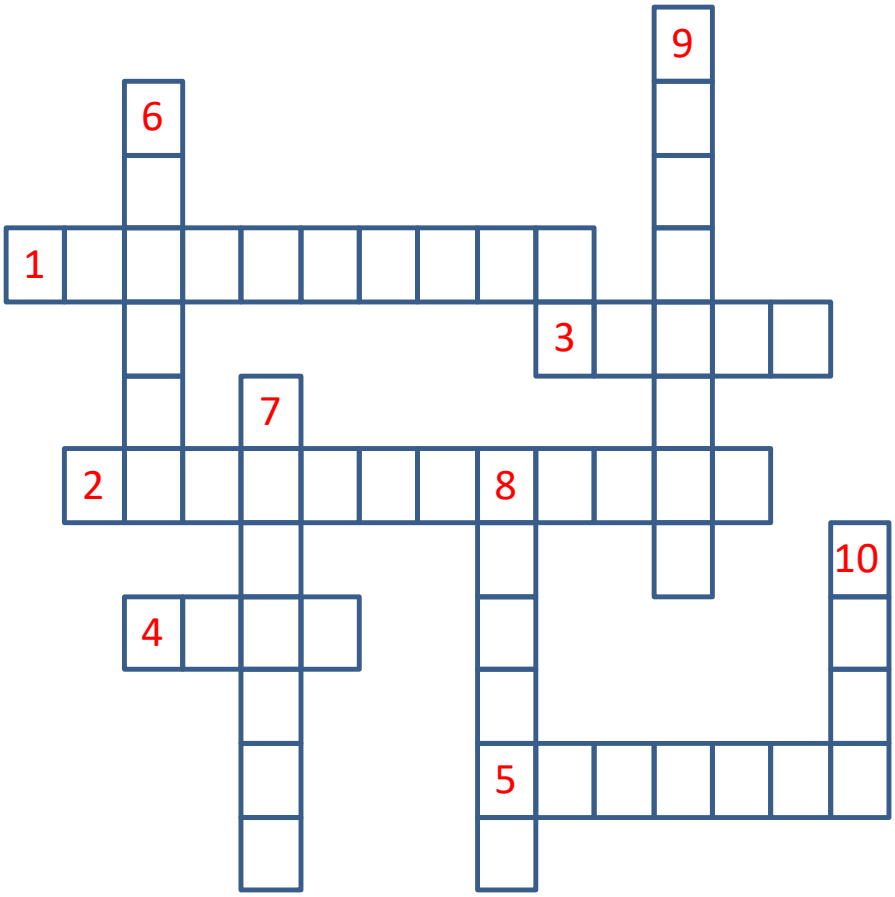
Mica View Trail, Saguaro National Park, looking west over Tucson

Ruskin Hartley, CEO of DarkSky International, will be writing a regular column for the Desert Skies Bulletin on light pollution. We thank Ruskin for his contributions!

DarkSky

June Crossword Puzzle – Noteworthy people in Astronomy History

Answers in the July Issue



Across:

1. – Proposed the planets circled the Sun, not the Earth.
2. - Nicknamed Beta by many of his contemporaries because he was second best at everything. Computed the size of the Earth.
3. - Made extensive measurements of planet positions. Willed them to Kepler on his deathbed. Kepler used them for his laws of planetary motion.
4. - Measured many galaxies. The 200-inch telescope is named in his honor.
5. - She discovered the relationship that made Cepheid variables a standard candle.

Down:

6. – Derived the three laws of planetary motion from observations of the planets positions.
7. – Wrote the Almagest.
8. – Determined the Andromeda nebula is actually a galaxy outside of the Milky Way.
9. – Discovered Uranus. Observed many deep sky objects.
10. – First proposed the idea of a large cloud at the outermost region of the solar system as the location where most comets originate.

Skyward

By Dr. David H. Levy

June 2026

This month's article is more personal than most of the others, and it is only distantly related to the night sky. Over the last few months, particularly around the time of the March 2026 eclipse of the Moon, I began to encounter dizzy spells that grew in intensity. Near the end of April, I suffered through a terrible day during which I fainted 15 times, the last of which resulted in broken ribs. I do not know how my iPhone found its way to my side that night. When I was discharged from a second hospital three days later, I had been diagnosed with a severe hypoxia. When I arrived my hemoglobin level was down to a near-fatal level of 5 but as I write these words it is up to 9.5; still too low but better. I also have three ulcers. I was forced to cancel a planned visit to Kalamazoo, Michigan, but I did successfully present my lecture over zoom.

Thanks to good family support and the help of my friends David and Pam Rossetter and Tim Hunter, I am at home and improving. I have restarted my observing. I am able to resume my nightly field checks of T Coronae Borealis, and even a little comet hunting. I do appreciate your words and prayers.

I feel as though I am emerging from a very long tunnel. The experience has been excruciating but wondrous also. Except of course, for last night. The setting Sun brought a beautiful clear sky. Jupiter was hanging in the upper west. Venus was not too far away from giant Jupiter. All the stars were out. As I got my eyes adapted to the darkness, the friendship of the stars began to take hold. Sirius, shining clearly at magnitude minus 1.5, beckoned me to try to spot its companion, which I have observed before. As constellation after constellation, asterism after asterism, made their grand entrances, each one had a unique story to tell. Some stories are established legends, and others could be as fresh as a child's imagination and fresh approach to what that part of the sky can teach.

When I was a teenager, my particular love was comets. It still is. They are so magical, so precious, so much fun, and so unique. I have observed more than 240 comets, of which 23 are comets I have discovered or co-discovered. From my own point of view they are also friendly. Each one has a distinct, well-established personality. I love them all, but more than that I have a special place in my heart for each one of the 23 comets I have found, either on my own or with Carolyn and Gene Shoemaker. And just last night, David Rossetter and I resumed our monthly observing at our association's Chiricahua Astronomy Complex. The night was sparkling and I will never forget it.

Right now, I have to concentrate on my recovery, on getting better. In this difficult time I think of Walt Whitman, truly one of my favorite poets, and his superb rhyme entitled "A Clear Midnight."

> This is thy hour, O Soul, thy free flight into the wordless,
> Away from books, away from art, the day erased, the lesson done,
> Thee fully-forth emerging, silent, gazing, pondering the themes thou lovest best,
> Night, sleep, death, and the stars.

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.