TAAA Desert Skies Bulletin

Observing Our Desert Skies Since 1954

June 2025

www.tucsonastronomy.org

Membership Meeting

Friday, June 6, 2025 6:30PM

TAAA's next general member meeting will be held on **Friday, June 6, 2025**. The Main Presentation will start at 6:30 P.M. 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: **Total Solar Eclipse from Egypt: August 2, 2027**

Solar Eclipse at Totality
Credit: voxvine.com/nasa

Presentation: Imagine nearly 6½ minutes of darkness in a location where clouds are almost impossible. Add to that exploring one of the greatest civilizations ever. It's not a dream, it's going to happen. And you can be there. The duration of totality in 2027 won't be surpassed until 2114, so calling it the BIG ONE isn't an exaggeration. In his talk, Michael will detail the eclipse and invite you to observe this spectacular event surrounded by the archaeological treasures of Egypt.

Biography: Michael E. Bakich was Senior Editor of Astronomy magazine for 17 years before retiring in 2019. He and his wife, Holley, then realized their lifelong dream and moved to Tucson. Then, in 2024, the magazine was sold and Michael began working there again, from home. Michael has traveled to 16 total solar eclipses and authored four books on solar eclipses.

Thank You Mae!

TAAA President 2018 - 2025

Notes From The President

May 2025

by Ed Foley

Each May during our "Annual Meeting", TAAA holds its elections for the TAAA Board and members of the Nomination and Volunteer Resource Committee (NVRC). We have staggered terms for our various positions so as to not turn over the entire group each election. This year the membership elected Ed Foley, President, David Rossetter, Vice President, re-elected Stephen Ferris Member at Large (the incumbent), re-elected Pete Hermes NVRC (the incumbent), and Connor Justice, NVRC. The team will have plenty to do for our growing organization.

There were other changes to our leadership group in May. As a result of the election and David Rossetter assuming his new duties on June 1, we will have an open Member At Large position on the Board. Additionally, our Treasurer, Barbara Whitehead, after moving out of state, has resigned her position. As a result, the TAAA Board of Directors at its May 14 meeting appointed David Eicher as Member At Large to serve the remainder of that term, and Michael McDowell as Treasurer to complete the remainder of that term. You may know member David Eicher as the Editor in Chief of Astronomy magazine, and remember Michael McDowell as a former TAAA treasurer. You can learn more about the backgrounds of all these leaders under "About Us" on the TAAA Website.

The new board will take up the task of guiding the organization to bring members high quality programs, outstanding options for observing at dark sites, and opportunities to give back to the organization and community through our fulfilling volunteer options.

Please join me in welcoming the newcomers to our leadership team, and thanking Mae Smith and Barbara Whitehead for their contributions to making the TAAA organization a leader among its peers.

We hope to see you at the Grand Canyon Star Party later in June. Clear Skies.

Ed Foley

***President Ed Foley:**
president@tucsonastronomy.org

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

Secretary: Bob Reynolds
secretary@tucsonastronomy.org

***Treasurer: Michael McDowell**
treasurer@tucsonastronomy.org

BOD Members-At-Large:

Stephen Ferris mal1@tucsonastronomy.org
***David Eicher** mal2@tucsonastronomy.org
John Kalas mal3@tucsonastronomy.org

***Immediate Past President: Mae Smith**
past-president@tucsonastronomy.org

TAAA Board: taaabod@tucsonastronomy.org

*New or reassigned email. Effective around June 1.

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 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

Election Results

The TAAA Annual Leadership Election was concluded during the last member meeting on May 2nd. Results reported to the membership in attendance included Ed Foley elected as President, David Rossetter as Vice President, Stephen Ferris as Board Member-At-Large, and Connor Justice and Pete Hermes elected and re-elected respectively as members of the NVRC, all for 2-year terms. Terms of office/positions commence on June 1. A hearty thank you to Mae Smith having recently served as our club's President and who will continue to be a member of the Board as an Immediate Past President.

Please direct any questions or concerns regarding the election to the NVRC.

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

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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 19, 6:30

Pita Jungle

7090 N Oracle
(SE corner of Oracle and Ina)

Preview the menu.

RSVP Susan 520-780-0136

The CAC 32 Inch DFM Telescope Observatory

May 2025 Update

Ed Foley - Project Team Leader

The observatory for our .8 meter DFM research-grade telescope is nearing completion. Power has been brought to the building and the electrical contractor has completed the bulk of their wiring. The rolling shutter on the south wall, which will uncover space on the south wall allowing the roof to clear the telescope when it rolls off, will be installed the last week in May. The general contractor can then complete the sheathing of the south wall and the remaining items necessary for final completion. More work needs to be done to ensure the roof can open and close safely and to complete the seals to keep out dust and critters.

The observatory is expected to be ready by June 16th. On that day, a team of TAAA volunteers will be joined by help and equipment from Jim Graham of Golden Rule Vineyards to move the telescope. The disassembled telescope has been generously stored by member Warren Hensey in his barn in Cochise County since it was retrieved from the Colorado donor in 2023. The team will load the telescope piece by piece and haul it to the CAC site to be stored in the observatory and our storage containers until it is assembled. Assembly will occur after monsoon season in October. Tom Melsheimer, who was key to our ability to disassemble and load the telescope for transport in Colorado, has agreed come work with us to reassemble it at its new home.

External view of the Observatory

Stored 32” Telescope - Ready to be packed up and moved!

Observing Sites

TIMPA

by TIMPA Planning Group

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

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

TIMPA Star Party Dates this month (Friday - Saturdays)

June 20 - 21; June 27 - 28

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 gopher 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

Chiricahua Astronomy Complex

by Jim Knoll

Upcoming CAC Weekend Dates (Thursday - Sunday)

June 26 - 29 (New Moon June 25)

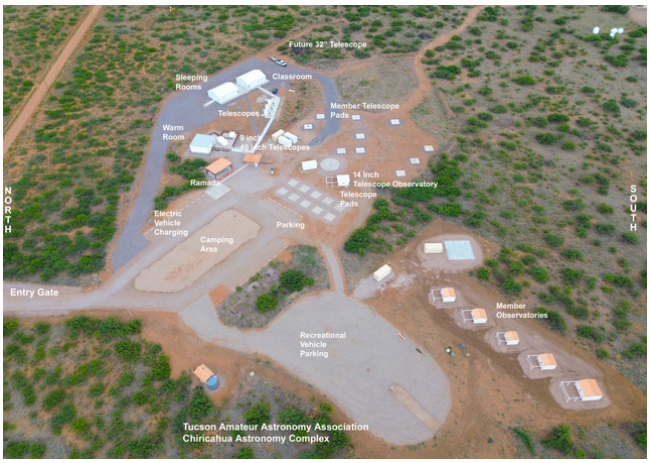
Chiricahua Astronomy Complex (CAC) is the club's dark sky observing site, located in Cochise County approximately 100 miles southeast of the center of Tucson. We have many large telescopes ranging from 40-Inch, 25-Inch and 18-Inch Dobsonians, a 9-Inch Folded Refractor, a soon-to-be completed 32-inch Cassegrain, and quite a few Schmidt-Cassegrain Telescopes (SCTs) of various sizes. The telescopes are configured for either visual observing or imaging.

You can be trained to operate any of these and observe or image from a dark Bortle 1-2 site only two hours from Tucson. 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.

TAAA members are welcome to attend our monthly Planning and Operations Zoom meeting, normally on the first Monday of the month at 6:30 pm. Email for the link.

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

If it is your first visit to CAC, you need to attend on a CAC weekend when other members are present. Unless you are qualified to open and close the site, dates will be limited to those around the New Moon and are listed below and on the CAC web page. Hosted personnel are generally on site a few days before and after these dates. Those qualified to open & close the site can use it anytime but still need to reserve through the CAC Reservations process.



CAC Director: Jim Knoll CAC on the Web

Observing Sites' 2025 Star Parties Dates

TIMPA	New Moon	CAC
June 20-21	June 25	June 26–29
June 27-28		
Monsoon:	July 24	July 24–27 (Monsoon)
No Dates	August 22	August 21–24 (Monsoon)
		September 13 – Evening Under the Stars – Public Event
September 19-20	September 21	September 18–21
October 17-18		
October 24-25	October 21	October 16-19
November 14-15		
November 21-22	November 19	November 20-23
December 12-13		
December 19-20	December 19	December 18-21

by Bernie Stinger

June 2025 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, 2025.**

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

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

June Events still in need of Volunteers

All events have been filled.

June Event Filled—No Volunteers Needed

Saturday June 14th — Oracle Az
Oracle State Park
3820 E Wildlife Drive, Oracle AZ
Age/Grade Level: All Ages
Participants: 125
0 scopes needed
Setup Time: 7-7:30 pm.
Start Time: 8:00 pm End Time:10:00 pm

Special Interest Groups

Starry Messengers Special Interest Group

Opening Minds to the Universe

The Starry Messengers' successful year of telescope-free activities was celebrated with a social event at the home of Terri Lappin and Gary Rosenbaum. We had lots of food, great conversation, and we played a few games of pool!

We have one event this summer during the week of July 7 to 11 (date TBD) at the Steam Pump Ranch in Oro Valley. It's a group of about 40 kids, 6 to 13 years old. Terri Lappin and Susan O'Connor have volunteered, but we could use another volunteer or two. Contact Terri Lappin if you can help. We'll be doing activities from the Space Rocks toolkit as well as making dry ice comets.

SMSIG is taking a hiatus from meetings over the summer months. **Our next meeting will be on Monday, September 8th.**

Questions about the Starry Messengers SIG can be directed to Terri Lappin email or 520-977-1290.

Astronomy Fundamentals SIG

by Connor Justice

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

The next AFSIG meeting is on **Thursday, June 12, 6:30pm to 8:30pm.**
Topics to be determined.

Contact Connor Justice for Zoom link and more information.

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

Astro-Imaging SIG

by Gregg Ruppel

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

Topics:

Beginners' Corner - Ask A Question

Selecting Subframes - Craig Harding and Jeff Rothstein

Image Sharing

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.

Also, we now offer a mentoring program. For details, see the AISIG Web Pages.

Astronomical League

by Doug Smith

What's Up List for June - July 2025

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

Constellation Hunter Program – The following constellations are well placed in the Northern sky for June and July: Bootes, 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 (ascending RA): M53, M63, M51, M83, M3, M83, M101, M102, M5

Urban Observing Program

The following **deep sky objects** are good for observing in June and July: M3 and M5
The following **double stars** are well placed for observing in June and July: Zeta Ursa Major

Continued

Lunar and Observing Program
The following is a list of dates for lunar phases in June and July:

New Moon: June 25, July 24
40 Hours waxing: June 27, July 26
72 hours waxing: June 28, July 27
4 days old: June 29, July 28
7 days old: June 3, July 2
10 days old: June 6, July 5
Full (14 days old): June 11, July 10
Gibbous: June 18, July 17
72 hours waning: June 22, July 21
40 hours waning: June 23, July 22

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 3 weeks of July.
Venus is an early morning object rising more than 2 hours before sunrise for June and July. It remains a morning star for the remainder of the year.
Mars is now well placed for evening observation. On June 1 Mars sets around midnight. On July 30 it sets around 9:30 PM.
Jupiter is setting earlier each day. Still visible in the early evening sky. It sets around 9 PM on June 1. It goes behind the Sun but is an early morning object in early July. By July 30 it is rising 2 hours before sunrise.
Saturn is rising earlier each night. It is still a late night object. On June 1 it rises around 1:30 AM. On July 30 it is rising around 9:30 PM.
Uranus is an early morning object. On June 1 it rises around 30 minutes before the Sun. On July 30 it is rising around midnight.
Neptune is a late evening object in June and July. It rises at about the same time as Saturn.

SPECIAL EVENTS: During June and July it is still possible to observe Saturn's moons involved in mutual events (occultations and eclipses).

Mutual Saturn satellite events:

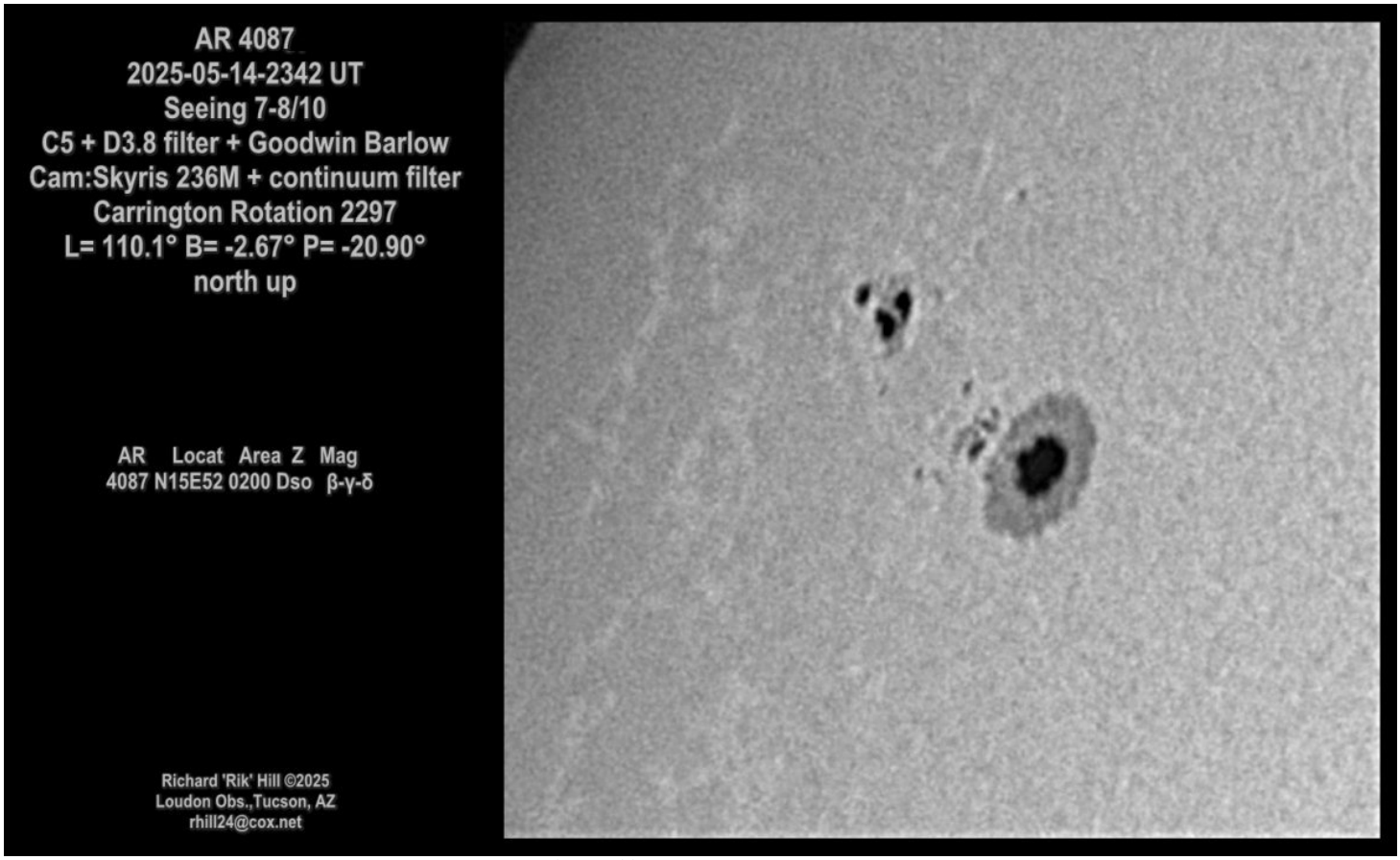
June 2, 2025: Mimas eclipses Dionne, Start: 8:09:51 UT, End 8:11:56 UT
July 1, 2025: Tethys eclipses Rhea, Start: 3:19:00 UT, End: 3:39:47 UT
July 5, 2025: Enceladus eclipses Tethys, Start: 6:49:30 UT, End: 6:51:36 UT
July 23, 2025: Tethys eclipses Rhea, Start: 11:25:28 UT, End: 11:33:32 UT

Also, during June and July several transits of Saturn's moon Titan occur. During these events Titan may be difficult to see if it is in front of Saturn. The dates and times listed below are for the transit of Titan's shadow:

June 16, 2025. Start: 08:20 UT, End: 14:01 UT
July 2, 2025. Start: 7:40 UT, End: 13:03 UT
July 18, 2025. Start: 7:00 UT, End: 12:05 UT

Member Astro-Images

Richard Spitzer - **Eta Aquarids.** Early morning, May 7 (4:16 am)

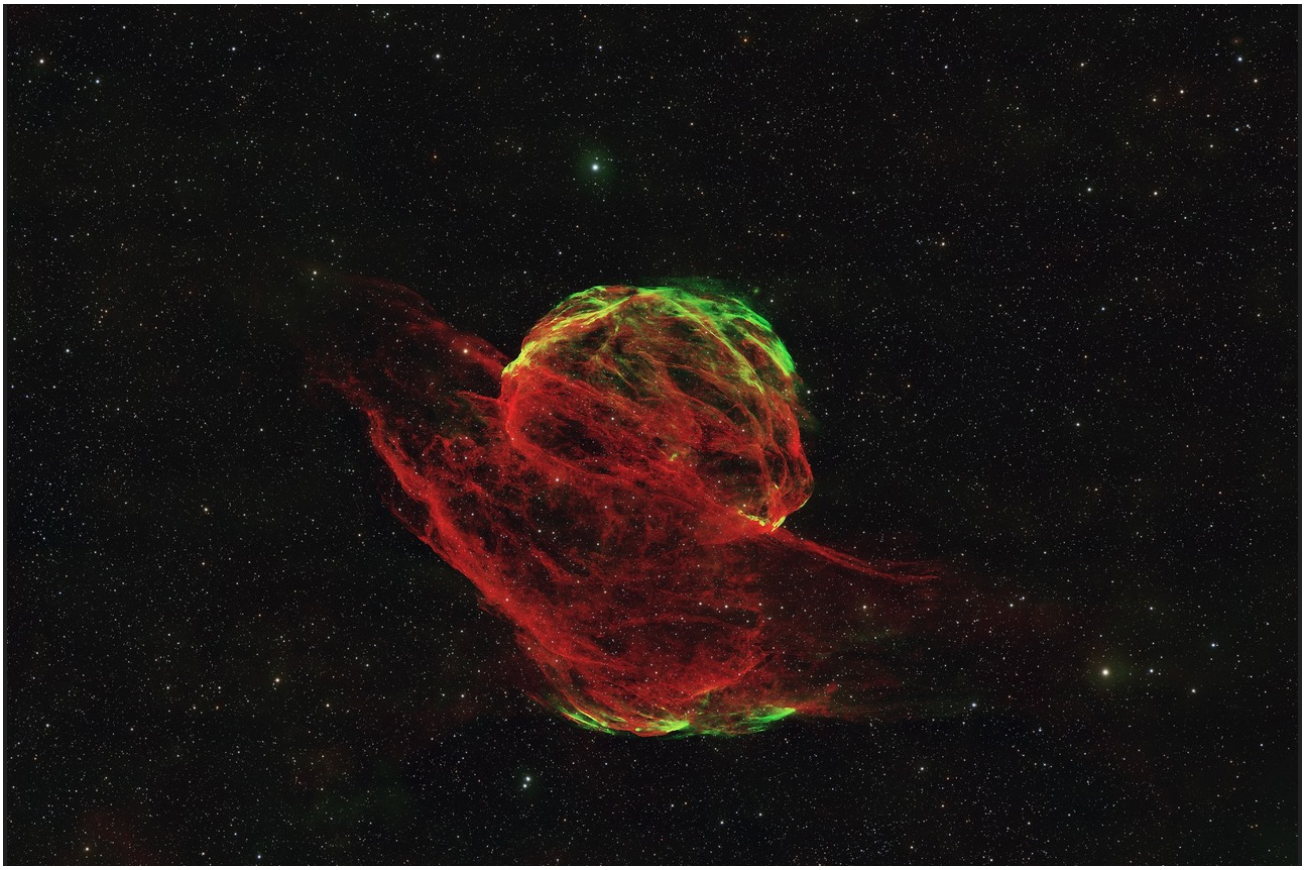


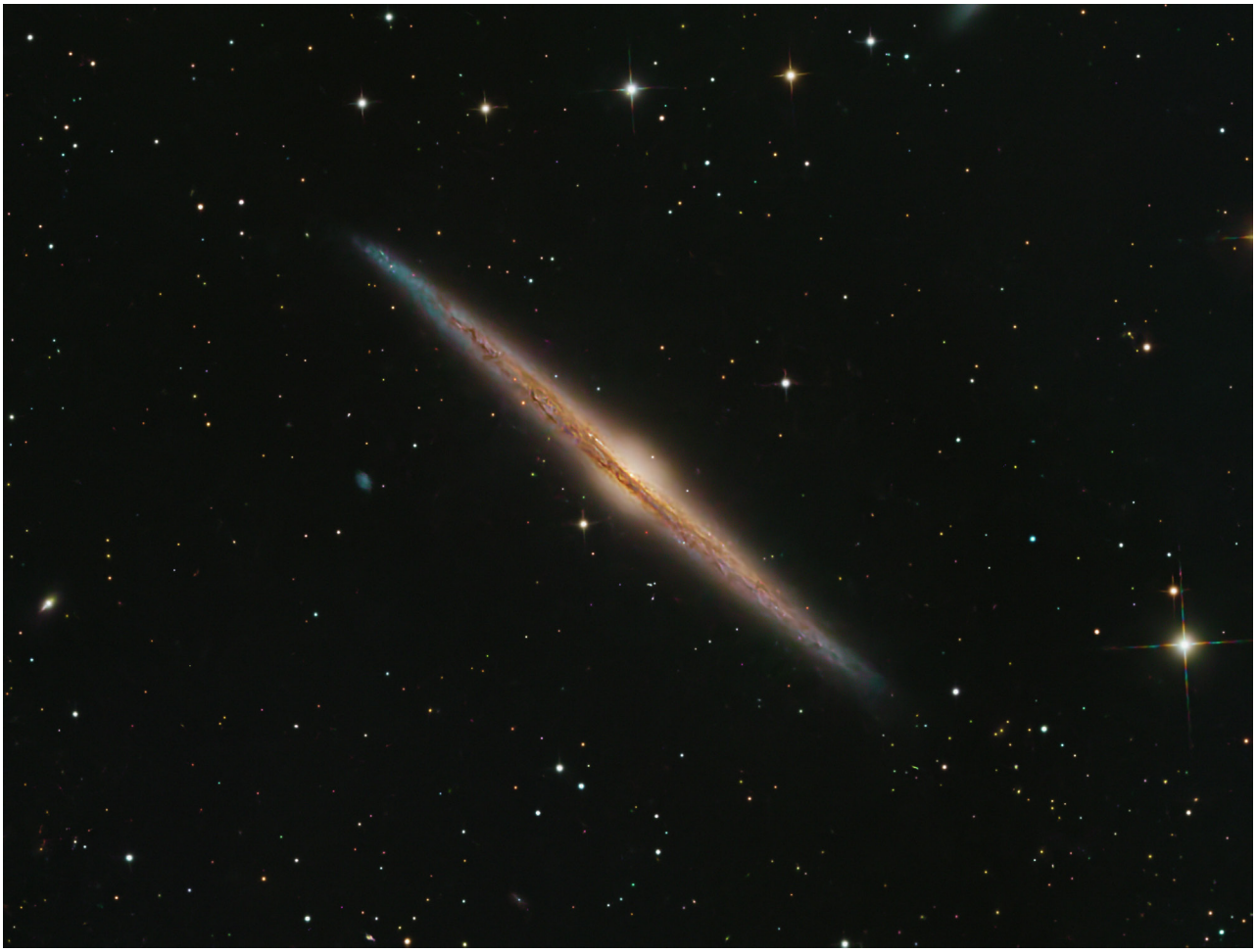
Rik Hill - **Sunspot AR 4087**

Ed Beshore
Astrophysics 155m refractor
operating at f/5

Jacoby 1
Total of 76h40m exposure time
(mostly OIII and Ha)

Sharpless 2-224
64h12m exposure time





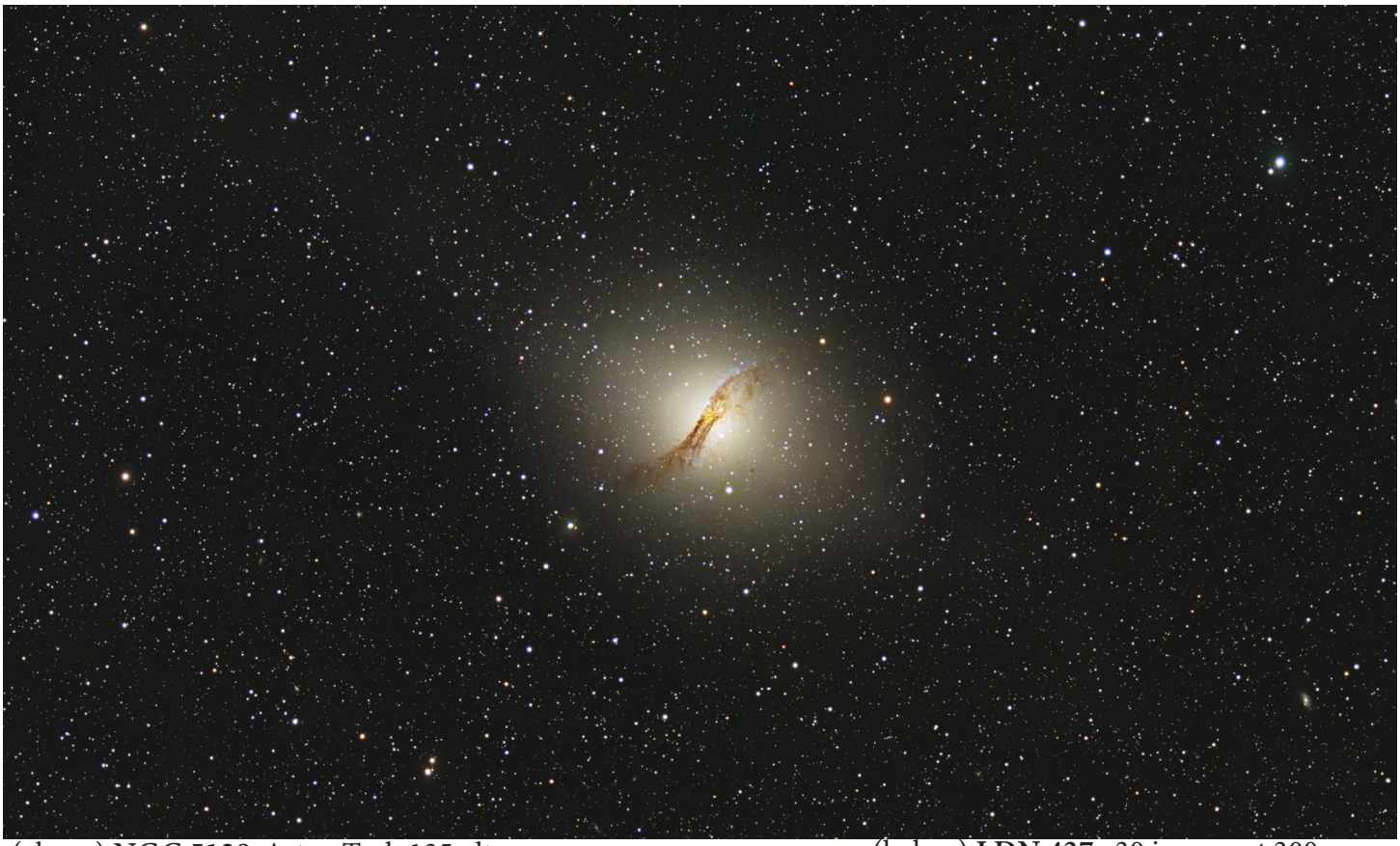
NGC 4565

Optolong LPro filter, 7h18m integration

John Tsantes Sky-Watcher Quattro 200p, ZWO 2600MC Pro camera

M106

11.5 integration hours



(above) **NGC 5128** Astro-Tech 135edt and the asi2600mcAir on an AM5N, 3 hours of integration time.

Craig Harding

(below) **LDN 437** 30 images at 300 seconds each on my 130edt with reducer using a asi2600mc camera. Astrobin

M78

Astrobin

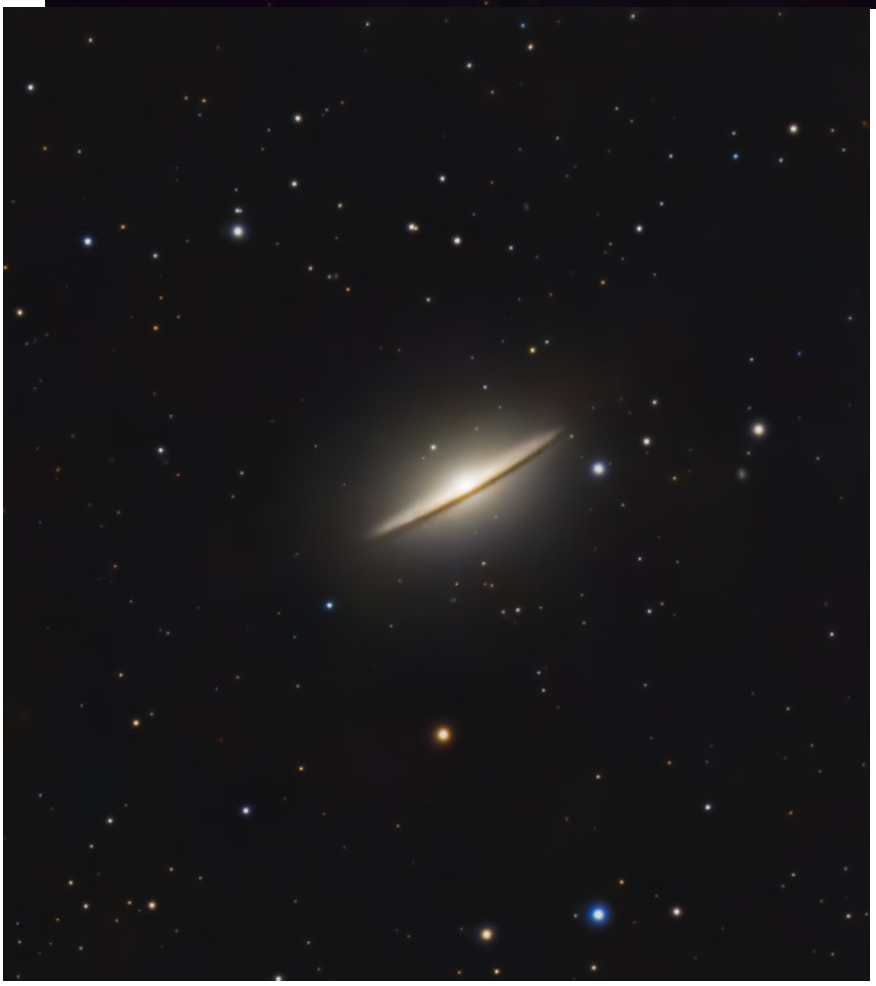
Alex Woronow

NGC 2992 & 2993

Astrobin

M51

Astrobin



David Stearn

M104

Seestar S50

NGC 5068

Stellarvue SVX80T-3SV f/6 apo / ZWO 585mc pro Gain 252 Offset 3 -3C / CEM70ec mount PhD2 bump guided (12 sec) / 4.1 hr exposure

Tom Eby

Abell 1656

SV80 f/6 apo refractor and SBIG ST10xme CCD camera thru clear filter. Three hour exposure, 3 min subs.

Mike Mulcahy

M101

Astrobin

Mark Savan

LDN 43

Stellarvue SVX130T refractor at f/5;
ASI2600MMPro,17.5 hours of LRGB exposure
from Howling Coyote Remote Observatory,
Pie Town, NM

Randy Smith

NGC 5566

Total integration: 13h 20m, (400 × 120’), Sky-Watcher Quattro 250P / 10-S, ZWO ASI585MC Pro, Sky-Watcher CQ350 Pro, Optolong L-Pro 2”

Allen Force

NGC4565

Astrobin

TAAA Astronomy Equipment For Sale

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

Celestron 8" CPC
(No Photo)

Dual fork arm mount, 9x50 finder, 2 eyepieces, telrad, finder rings, hand controller, users manual, tripod, diagonal. Basically new in original box. $1600

Celestron 6 NexStar
3 of these.
Some are black tube some are orange. All come with Tripod, eyepieces, finder. All are single fork rail mount, NexStar (tested), 1.25" visual back, 1.25 diaganol, 2 1.25" eyepieces. One comes with 6x30 crosshair finder, one comes with a telrad and one come with red dot finder. **$600**

Celestron 8
Single Fork Arm rail mount, NexStar, Tripod, 1.25" visual back, 1.25" diagonal, 1.25" eyepiece (25mm), crosshair finder, carrying case for optical tube. **$1000**

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

12" Dobsonian
Very large, Homemade. Crosshair finder. **$500**

12-inch Skywatcher Collapsible Dobsonian scope.
2" focuser, large 8x50 finder, and 2 eyepieces. **$900**

StarBound Observing Chair
Like new. In good shape. **$100**

TAAA Astronomy Equipment For Sale (continued)

Celestron 5" Omni XLT Tripod, Celestron CG4 GEQ mount, 6x30 finder, diagonal, 1 eyepiece, user's manual. **$500**

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

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.

Small camera tripods - $10

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

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

PIMA COUNTY

Pima County declares fire emergency, implements Stage II restrictions

The restrictions are:

- No open flames, including campfires, wood/charcoal grills. Gas grilling is allowed.
- No shooting of a firearm, including target shooting, except at a developed shooting range or while engaged in a lawful hunt pursuant to state, federal, or tribal laws and regulations.
- No use of consumer fireworks.
- No spark-generating activities such as welding, unless essential and conducted with strict safety measures.

Let's Stay Safe Out There!

View the full Announcement

Skyward

By Dr. David H. Levy

June 2025

A Tail of Three Comets!

In just the last few months, we have enjoyed a parade of no fewer than three comets. Last fall there was Comet Tsuchinshan-ATLAS, discovered by the Purple Mountain Observatory in east China, near Nanjing. The comet sported a very long tail and it was visible without a telescope for several weeks. It was the highlight of an observing session a local high school shared with its students. As the students sat and gazed at the sky, they could easily spot the tail stretching proudly across the western heavens.

Just a few weeks later, in December a second ATLAS comet began to brighten significantly. I tried hard to see it as it was apparently visible for less than an hour during evening twilight, but couldn't find it.

My close friend Steve Edberg, however, did. He and his family had to evacuate their home in La Canada during the fires burning at the time. On the evening of 14 January, while strolling along San Francisco's Golden Gate Bridge, he spotted Comet Atlas low in the west. He is one of the very few observers in the northern hemisphere to see it. He was so excited about it that he called me over the telephone. Our conversation was the first in more than two years but it resumed a friendship that has lasted for decades. I was proud of him that night over his sighting, and still am.

Over the next few days, until Comet ATLAS sank below the southern horizon, I attempted unsuccessfully to spot the comet. But then, on 25 January, I was outside looking at some cirrus clouds. Behind them, in the southern portion of the sky, there was something else—strange, misshapen. It might have been the tail of Comet ATLAS. I recorded it as a possible sighting.

Eureka, one of my remaining four telescopes and the one I used most for comet hunting.

When Sky & Telescope's June issue appeared with its pictures of the great "ghost comet," meaning that the head had disintegrated, the actual tail looked identical to what I saw on photographs taken just two days earlier than my sighting. I changed my record from "possible" to "probable." Comet ATLAS is the 236th comet I have seen since Comet Ikeya-Seki in 1965.

There was yet a third comet. Comet Swan (C/2025 F2) was discovered in March 2025. The discoverers used the Solar and Hemispheric Observatory spacecraft's SWAN (Solar Wind Anisotropies) instrument. I saw this lovely comet on the morning of 10 April 2025. This was my 237th comet. This SWAN instrument aboard SOHO, and SOHO itself, by the way, has discovered more than five thousand comets.

Three wonderful comets over just a few months is unusual, interesting, and fun: But all three have departed. As Hopkins wrote in 1864,

> But then her tether calls her; she falls off,
> And as she dwindles sheds her smock of gold...
> And then goes out into the cavernous dark.
> So I go out; my little sweet is done:
> I have drawn heat from this contagious sun:
> To not ungentle death now forth I run."

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.