

TAAA Desert Skies Bulletin

Observing Our

Desert Skies

Since

1954



October 2024

www.tucsonastronomy.org

Membership Meeting

Friday, October 4, 2024

TAAA's next general member meeting will be held on **Friday, October 4, 2024**. 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 [Facebook](#) page.

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Main Presentation at 6:30PM AZT

Title: Dark Sky Southern Arizona 2.0: The Hits (and Misses) Of Our First Year and How Our Region Can Reclaim Its Leading Role

Presentation: Light pollution is a longstanding concern in the Tucson area, which in many respects is the home of the global dark-skies movement. After going dormant during the pandemic, the Southern Arizona Chapter of DarkSky International (formerly the International Dark-Sky Association) was rebooted in mid-2023. In this talk, John Barentine will describe the motivations that led the group to restart the chapter along with the progress they have made toward achieving the strategic goals of their first three-year period. He will also give an update on regional light-pollution trends and opportunities that can strengthen this region's leadership on outdoor lighting issues.

Biography: John Barentine is the Principal Consultant at Dark Sky Consulting, LLC, and was formerly the Director of Public Policy

for the International Dark-Sky Association. 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, and the Sloan Digital Sky Survey. Throughout his career, he has been involved in educating the public about science. He is a member of the American Astronomical Society and the International Astronomical Union, and is a Fellow of the Royal Astronomical Society. The asteroid (14505) Barentine is named in his honor. His interests outside of astronomy and light pollution research include history, art and architecture, politics, law and current events.



September 2024

by Mae Smith

Now that fall is underway, of course, astronomy activities and events are ramping up and the weather is being more cooperative. Such a good time of year for our Southern Arizona members to share more fun activities

As we enjoy the skies of Southern Arizona, it is a good time to reflect upon the very energetic history we enjoy with so many Tucsonans and Arizona citizens who advocate and fight for a dark sky environment in Arizona. This allows for nurturing and preserving dark sky options. Of course, the Grand Canyon, about 4 hours driving time north of Tucson and the location of TAAA's largest yearly event, fought to become Dark Sky certified and TAAA members supported those efforts. TAAA also supported Oracle State Park, North of Tucson, a few years ago in its efforts to become Dark Sky Certified. Very recently the Tubac area South of Tucson just became Dark Sky Certified.

In the past, the City of Tucson established the Tucson City Outdoor Lighting Code (OLC). At the time it was developed (perhaps 12-14 years ago) it was remarkable. However, the Tucson Outdoor Lighting Code Committee has failed in enforcing much of the Code and has failed in its designated responsibilities to update the Code. The Code has long needed updating and has fallen well-behind current standards for updating. Of course, we know that skyglow from a city not only affects light within the City limits but the degree of light in the City limits can affect the skies for hundreds of miles.

Unfortunately our Tucson Outdoor Lighting Committee, which met regularly every two months for many years, so far has only met once in 2024 and has no more meetings scheduled in 2024.

If you live in Tucson you may contact

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 [Mae Smith](mailto:Mae.Smith@tucsonastronomy.org) to receive a Zoom link for that meeting. Please send your email to Mae 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.

the Mayor or your Tucson City Ward Representative and request that the important work of the OLC be continued and that the City take steps to bring the Tucson Outdoor Lighting Code up to date. You can also indicate that citizens north of Tucson (Oracle State Park) and south of Tucson (Tubac) have in recent years pursued Dark Sky Certifications. Sky glow control efforts outside Tucson in Southern Arizona are now exceeding Tucson's efforts. Tucsonans should show respect for other southern Arizona citizens that are directly impacted by Tucson City policies and behaviors.

If you are not familiar with or would like some current information on dark skies, see the article in this issue outlining some recent activity. Also, in October John Barentine from the Dark Sky Association will be the speaker at our TAAA General Monthly meeting.

Mae Smith, TAAA President
president@tucsonastronomy.org
(520 850-7137)

Other Elected Leader Contact Information:

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**The 2025 TAAA Wall Calendars
will be available at the general meetings.**

The cost is \$15 each, cash or check made out to TAAA.
Please contact [Susan OConnor](#) for alternative delivery.

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 restaurant for fellowship and conversation.

This month's meeting is:

Thursday, October 17, 6:30pm

C.I.Chu's Mongolian BBQ

4540 E Broadway Blvd
(S side of Broadway between Columbus and Swan)

Menu preview not available

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

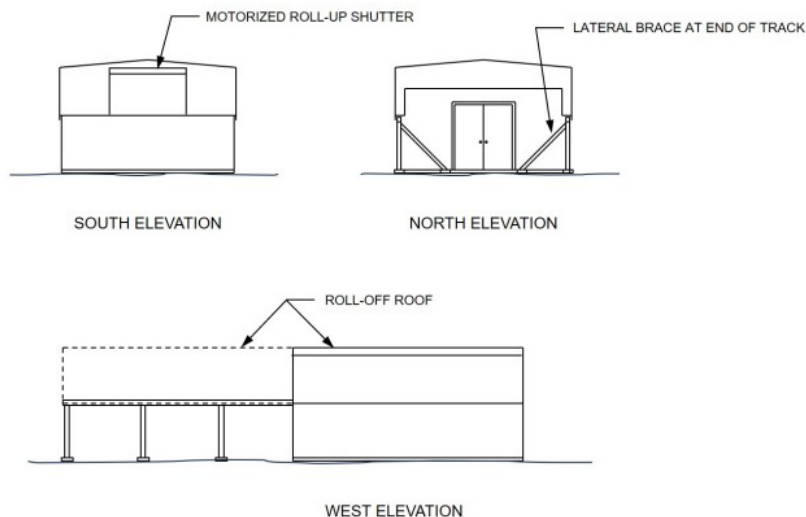
32 Inch DFM Telescope Project



The 32 inch observatory building committee brought the TAAA Board of Directors a report of both the fundraising efforts to date, and the results of the bidding by contractors in Cochise County for the project. The board determined we have sufficient funds and pledges, totaling more than \$140,000 from over 25 TAAA members, to enter into the a contract for building the observatory. Subsequently a contract was executed with a contractor to start the construction of the building at our Eastern Dark Site – the Chiricahua Astronomy Complex (CAC). This low bid was likely competitive due to the contractor’s familiarity with the site. This company is well qualified to handle the job as the firm has constructed a number of the buildings at CAC in the past.

Documents for the Cochise County construction permit application were submitted and our permit approved. Rough clearing has now taken place and construction can proceed. Construction is expected to take 3 months.

Once the observatory is completed, the telescope will need to be moved to the CAC site from its storage location, hoisted in to place, reassembled, and commissioned before it can be placed in service.





The NVRC is **seeking potential candidates for a vacancy on the Nomination and Volunteer Resource Committee.** This is an ideal position for anyone interested in making their first foray into club leadership, and as all meetings are conducted remotely, a good position for members who do not regularly reside in the Tucson area or are part-time residents.

The NVRC is also seeking potential candidates interested in Apparel Coordinator for presentation to the TAAA President for selection.

Members may review the position descriptions for both elected and appointed leader positions through their Member Planet accounts – from the main Tucson Amateur Astronomy Association webpage (<https://tucsonastronomy.org/>) select “Members Only” from the tabs located near the top just below the main search bar; then login with your email/username and password; then scroll down to the 5th item “TAAA Docs and Videos”; select/click, from the “MEMBER ONLY INDEX” page, scroll down and select/click on the 6th item HANDBOOKS and REFERENCE MATERIALS; then finally, click or select on a specific “Job Position Descriptions – TAAA Board...” or immediately below, “TAAA Position Descriptions – Leader Descriptions”, which are the non-elected volunteer opportunities.

Please contact the [NVRC Chair](#) for additional information or if you have questions pertaining to a particular position.

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

Star Hopping Workshop

Open for Enrollment

Place: TIMPA **Date:** Saturday, October 26, 2024 **Time:** 5:45 PM until completed

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

If interested: Contact Douglas Smith: 520-396-3233, [Email](#)

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

Fundamentals of Astronomy Class

Open for Enrollment

Place: Armory Park Center, 220 S. 5th Ave, Tucson

Date: Three consecutive Saturdays: February 24, 2025, March 2, 2025, March 9, 2025

Time: 9 AM until 4 PM each day

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

If interested: Contact Douglas Smith: 520-396-3233, [Email](#) or use sign-up sheet available at the October 2024 through January 2025 General Member meetings.

Observing Sites

TIMPA

by TIMPA Planning Group

TIMPA (Tucson International Modelplex Park Association), 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 (almost) month:
September 27 - 28, November 1 - 2



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.

Chiricahua Astronomy Complex

by Jim Knoll

Upcoming CAC Weekend Dates (Fri/Sat)

September 27-28 (New Moon October 2), November 1-2 (New Moon November 1)

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

Chiricahua Astronomy Complex (CAC) Telescope Training. We have quite a few telescopes that members can get trained and certified to use at CAC. They include: The Wally Rogers 14" Celestron, the Reynolds-Mitchell 9" Folded Refractor and the 40" Big Boy, and on the Stinger Pad, the Celestron 9.25" & 11", the Meade 12", and the 18" Obsession. We also have some small dobs and an 8" Celestron members can use. For more information and to get on the training list, contact [Joe Jakoby](#).



Unless you are qualified to open and close the site, dates will be limited to those around the New Moon and are listed 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 Star Party Dates

2024 - 2025

TIMPA	New Moon	CAC
September 27-28	October 2	September 27-28
November 1-2	November 1	November 1-2
November 29-30	November 30	November 29-30
December 27-28	December 30	December 27-28
January 24-25	January 29	January 30–February 2
	February 27	February 27–March 2
	March 29	March 27–30
	April 27	April 24 – 27
	May 26	May 22 – 25
	June 25	June 26 – 29

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" XLT with NexStar. Comes with a couple of eyepieces, barlow, red dot finder, instruction manuals.
\$1000



Skywatcher 10" Dobsonian. Comes with rack and pinion focuser (2" or 1.25"), 8x50 finder and 10" full aperture white light solar filter, instruction manual.
\$600



Meade ETX60 Refractor with Autostar, Extra keypad, instruction manual.
\$75

12" Dobsonian - NO IMAGE.
Very large, Homemade. Crosshair finder.
\$500

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

TAAA Equipment Loaner Program

The TAAA has a terrific Equipment Loaner Program. This gives you access to fine telescopes including computerized Schmitt Cassegrains from Meade and Celestron, Dobsonians from Orion, mounts, tripods, and cases full of fine eyepieces. Check out the [full list](#) with descriptions and photos.

This equipment is for TAAA members to checkout and use. Email [Ralph Means](#) for information or to schedule time for pick up.

by Bernie Stinger

October 2024 Star Party Volunteer List

Thank you for volunteering your time and talents for our extremely important outreach mission. **Below is the Public/School Star Party list for October, 2024.** October is the month when many of the school events start to pick up. No events at the Cooper Center this month, they will start up in November.

Please let me know in return 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 September 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

October Events still in need of Volunteers

Saturday – Oct 5 – EAST TUCSON – SOLAR
Radio Society of Tucson @ Calvary Tucson
Church parking lot
8711 East Speedway
Age Level: Adults
Participants: 50
1 Solar Scope Needed – H-alpha
Setup Time: 7:30 am. Start Time: 8:00 am.
End Time: 10:30 am.

Saturday–Oct 5–Chiricahua Mountains SE AZ
Chiricahua National Monument
12856 E Rhyolite Creek Rd, Willcox, AZ
Age/Grade Level: All Ages
Participants: 75
1 Additional Scope Needed
Setup Time: 6:30 pm. Start Time: 7:00 pm.
End Time: 9:00 pm.

Friday – October 25-- CENTRAL TUCSON
Safford Community School
200 E 13th St
Age/Grade Level: K – 8 Grade
Participants: 100+

1 Additional Scope needed

Setup Time: 6:00 pm. Start Time: Soon
as visible. End Time: 8:00 pm.

Monday – October 28 -- CENTRAL TUCSON
Grace St. Paul's Episcopal Church
2331 E Adams St
Age/Grade Level: Adults – Tucson Master-
works Chorale

2 Scopes Needed

Setup Time: 7:30 pm. Start Time: 8:00 pm.
End Time: 9:00 pm.

Wednesday – October 30 – NORTH TUCSON
Tohono Chul Park
7366 N Paseo Del Norte
Age/Grade Level: Adults
Participants: 100

1 Additional Scope Needed

Setup Time: 6:00 pm. Start Time: 6:30 pm.
End Time: 9:00 pm.

October Events Filled—No Volunteers Needed

Friday – October 4 — ORACLE AZ
Oracle State Park
3820 E Wildlife Dr, Oracle AZ
Age/Grade Level: All Ages
Participants: 50 – 80 (special group –
reception for Artist in Residence program)
0 Scopes needed
Setup Time: 6:30 pm. Start Time: 7:00 pm.
End Time: 9:00 pm.

Tuesday – October 15 -- FAR EAST TUCSON
Henry Elementary School
650 N. Igo Way
Age/Grade Level: K – 12
Participants: 80 – 100
0 Scopes Needed
Setup Time: 6:00 pm. Start Time: 6:30 pm.
End Time: 8:00 pm.

Saturday – October 5 -- PICACHO AZ
Picacho Peak State Park
15520 Picacho Peak Rd, Picacho, AZ
Age Group: All Ages
Estimated # Participants: 75
0 Scopes needed
Setup Time: 6:30 pm Start Time: 7:00 pm
End Time: 9:00 pm

Thursday – October 17 -- SOUTH TUCSON
Wakefield Middle School
101 W. 44th St.
Age/Grade Level: 6 Grade
Participants: 50 – 100
0 Scopes Needed
Setup Time: 6:00 pm. Start Time: 6:30 pm.
End Time: 8:00 pm.

Sunday – Oct. 20 --EAST TUCSON—SOLAR

Saguaro National Park – EAST

Saguaro EAST is located at 3693 S Old Spanish Trail.

Age Group: All Ages

Estimated # Participants: 50

0 Solar telescopes needed (white light or H-alpha)

Setup Time: 12:30 pm Start Time: 1:00 pm End Time: 3:00 pm

Friday – October 25 -- TUBAC AZ

Tubac Presideo Historical Park

1 Burruel St., Tubac, AZ

Age/Grade Level: Adults

0 Scopes Needed

Setup Time: 5:45 pm. Start Time: 6:15 pm.

End Time: 8:00 pm.

Saturday – Oct 26 –NW TUCSON –CATALINA

Catalina State Park

11570 N Oracle Road

Age/Grade Level: All Ages.

Participants: 100+

0 Scopes Needed

Setup Time: 6:30 pm. Start Time: 7:00 pm.

End Time: 9:00 pm.

Special Interest Groups



Starry Messengers Special Interest Group

Opening Minds to the Universe

At our September SMSIG meeting, it was decided that our exhibit at the 2025 Tucson Festival of Books will be about the Sun. We've done this topic before, so we have a good idea of what materials and activities we will include, but we're considering a few new ideas.

We will meet again by Zoom on **Monday, October 14th**, at 7pm, to discuss our upcoming outreach activities. All TAAA members are invited to attend, especially those who enjoy doing outreach, generally without a telescope. The link will be sent out to all members.

We have several astronomy activity toolkit requests coming up. Below is a list of the events.

- Oct 15 6:30pm – 8pm Henry Elem (Camino Seco/Speedway), Shadows & Silhouettes, filled by Pete Hermes
- Oct 17 6:30pm – 8pm Wakefield MS (44th St/6th Ave), Black Holes, filled by Tom Sarko
- Nov 14 5pm – 6:30pm Myers Ganoung Elem (Swan/29th), Space Rocks, **UNFILLED**
- Nov 15 7pm – 8:30pm Esmond Station K-8 (I-10/Houghton), PlanetQuest, filled by Susan O'Connor
- Jan 28 6pm – 7pm Whitmore Elem (Glen/Craycroft) Exploring the Solar System, **UNFILLED**

Questions about the Starry Messengers SIG? Contact Terri Lappin [email](#) or call 520-977-1290.

Astronomy Fundamentals SIG

by Connor Justice

Come join us for a presentation from 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, October 10, 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's [YouTube Channel](#)

[AFSIG on the Web](#)

Astro-Imaging SIG

by Gregg Ruppel

The next AISIG meeting will be **Monday, October 21 at 7:00 pm** via ZOOM.

Topics:

Beginners' Corner - Ask A Question

Publish Your Image - Gregg Ruppel

Image Sharing, Discussion

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, [check here](#).

Submit your entries to the **TAAA's 2024 AISIG Astrophotography Contest** now through **December 15!** The contest offers three categories - Solar System, Deep Sky, and Nightscapes - and is open to all members of the TAAA. You may enter one, two or all three categories, one image per category. Our judges will name 1st, 2d and 3d places in each category, and Starizona has generously agreed to donate a \$100 gift certificate as a prize for each of our winners. Please see all the details and rules [here](#). Join us as we celebrate beautiful images of the night sky!

Look for previous AISIG meetings on the [TAAA YouTube Channel](#).

Check out AISIG's new [Web Pages!](#) We've refreshed our landing page with current meeting info, fresh images and links for our Members Gallery. Also, we now offer a mentoring program.

Highlights from the Astro-Imaging SIG



Epsilon Perseid meteor going by Jupiter on the morning of September 9, about 1 am. It's a minor meteor shower and I caught just a few.

Richard Spitzer

Partial Lunar Eclipse: A composite during the eclipse, September 17



**Allen
Force**

Sh2-132

[Astrobin](#)



**Alan
Rockowitz**

NGC 1530

[Astrobin](#)





NGC 6946

Acquired at about 1450 mm unguided. Consists of 200 30 second exposures using an Antlia Triband Filter.

[Astrobin](#)

Ed Jacoby



M106

[Astrobin](#)



Sh2-114: the Flying Dragon in Cygnus. A total of about 49 hours of integration time over 9 consecutive nights. A-P Traveler 105mm f/6 APO and Mach2GTO mount. [Astrobin](#)

Jeff Rothstein

M33: A-P Traveler 105mm f/6 APO and Mach2GTO mount and 183MM PRO. [Astrobin](#)





NGC 6674

A small, low surface brightness barred SB type galaxy, about 157 million LY away.

RC8" f/8 / ZWO2600mc pro / CEM70ec OAG / 3hr exposure / no filter.

Tom Eby

NGC 266

A massive 12.5 magnitude barred spiral with tightly wound arms and a quasi-ring structure, NGC 266 lies about 200 million LY away.

Several remote galaxies are seen below left (SW) of NGC 266; these range from 850 million to 1-billion LY away according to NED/SIMBAD.

RC8" f/8 / ZWO2600mc pro, / CEM70ec OAG guided PhD2 + 174mm mini cam / no filters / 3.8 hr exposure.

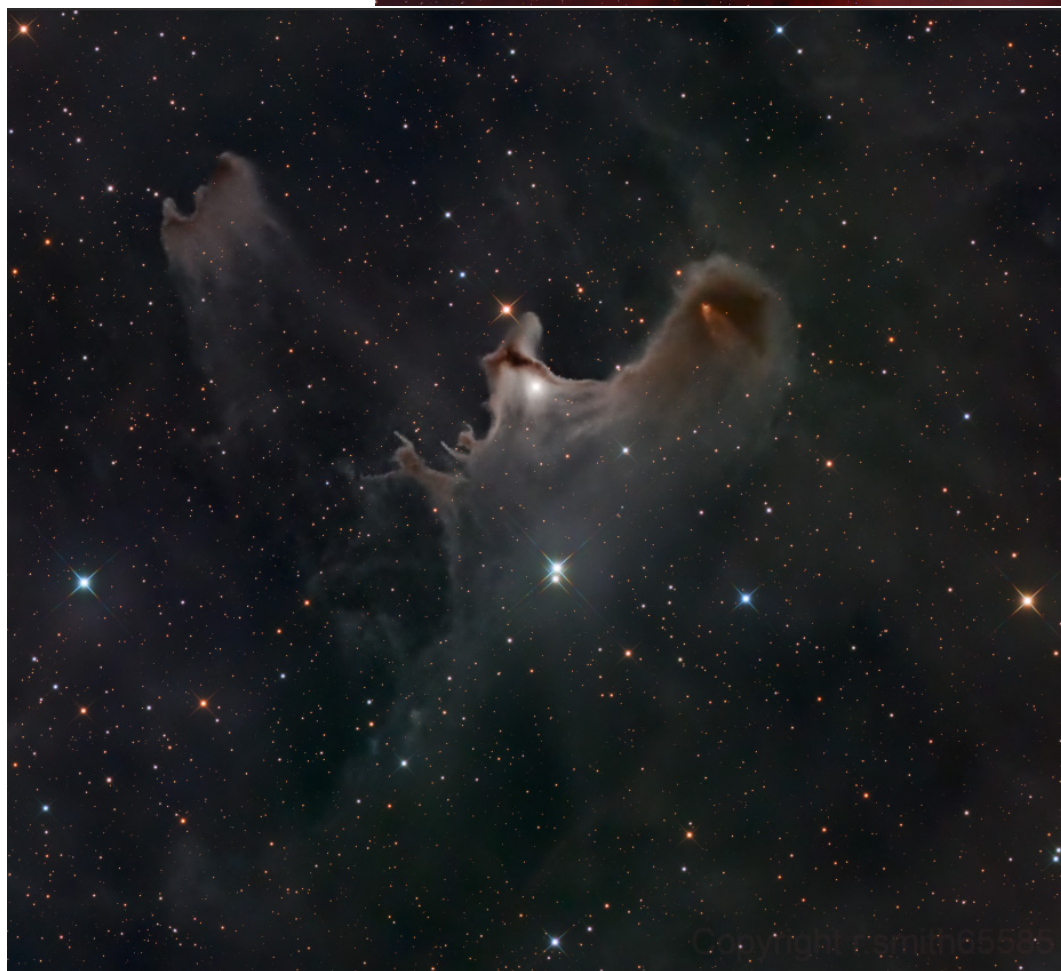


IC 1396

Captured with Skywatcher 200P, Nexus reducer/corrector, 2600 MM and Antlia 3 nm filters.

[Astrobin](#)

Randy Smith



Sh2-136

[Astrobin](#)

SH2-132

Using the Foraxx Pallet and Seti Astro's RGB to NB stars script. This was captured with the IDAS NBZ UHS filter last November.

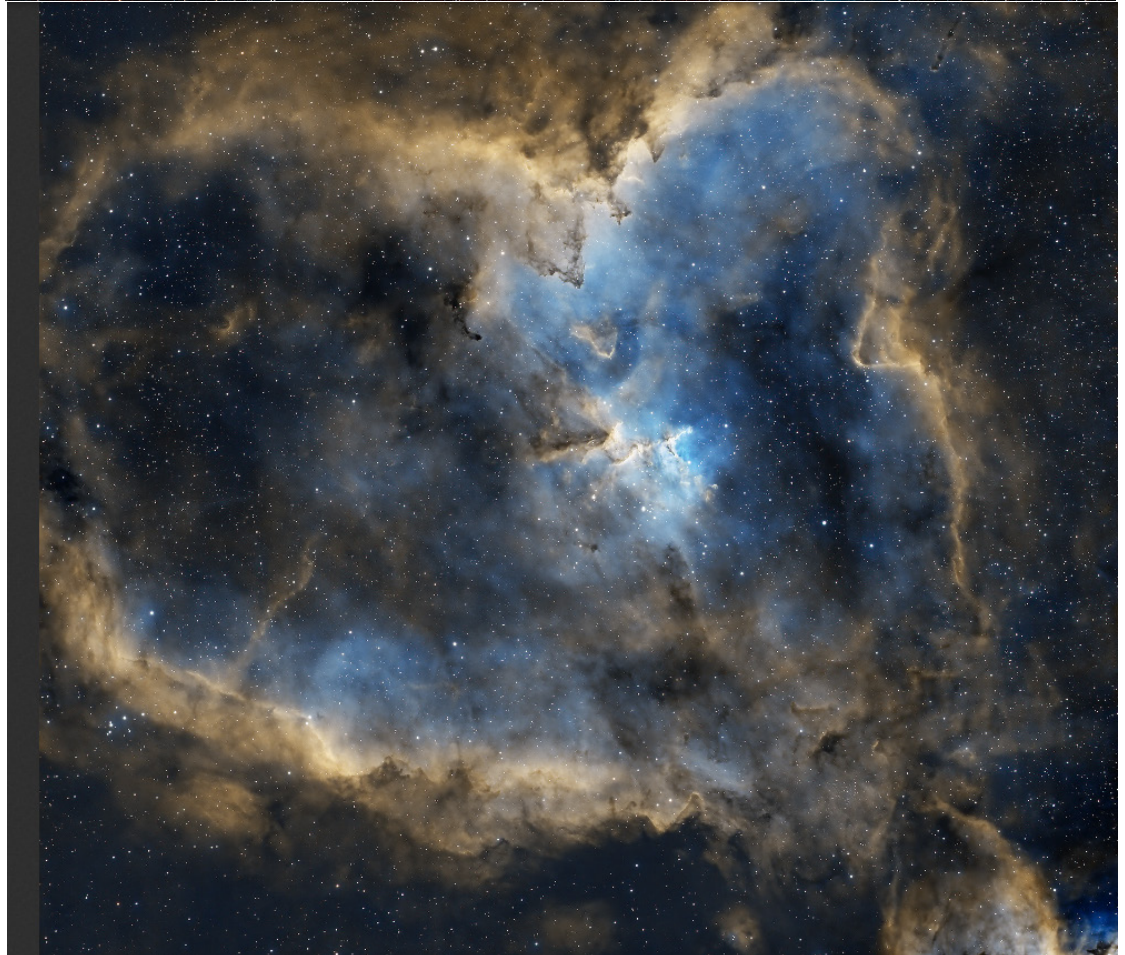
[Astrobin](#)



David Stearn

IC 1805 Heart Nebula

[Astrobin](#)



October 2024 – November 2024

Fellow amateur astronomers, many of the Astronomical League observing programs can be done from our backyards. The following is a list of objects visible in October and November for the more common observing programs.

Constellation Hunter Program – Northern Sky

The following constellations are well placed for observing for October and November:

Andromeda, Aquarius, Aries, Cassiopeia, Cepheus, Cygnus, Delphinus, Equuleus, Lacerta, Pegasus, Pisces, Triangulum

Messier Observing Program - This is the sparse time of year. This is the area where the Sun is in March which allows us to do a messier marathon, because it's so empty. The following Messier Objects are well placed for observation during October and November (listed in ascending RA): M15, M2, M39, M30, M52

Lunar and Binocular Observing Program

The following is a list of dates for lunar phases in October and November:

New Moon: October 2, November 1	10 days old: October 13, November 11
40 Hours waxing: October 4, November 3	Full (14 days old): October 17, November 15
72 hours waxing: October 6, November 4	Gibbous: October 24, November 22
4 days old: October 7, November 5	72 hours waning: October 29, November 28
7 days old: October 10, November 9	40 hours waning: October 30, November 29

Solar System Observing Program

The following planets are visible during October and November:

Mercury is an early evening object during October and November, reaching greatest brilliance on November 16.

Venus is an early evening object during October and November. Venus gets brighter and sets later each night so that by the end of November it is setting 3 hours after the Sun.

Mars is a late evening object during October and November. It rises around 11 PM on October 1 and around 8:30 PM On November 30.

Jupiter is approaching opposition (early December). On October 1 it rises around 9 PM and transits around 4:30 AM. November 30 it rises around 5 PM and transits around 12:30 AM.

Saturn is well placed for early evening observation. During October and November Saturn is already well up at Sunset. On October 1 it transits around 10:30 PM and on November 30 it transits around 6:30 PM.

Uranus is well placed for evening observation. It reaches opposition on November 16. On October 1 it transits around 3 AM and on November 30 it transits around 10:30 PM.

Neptune is well placed for evening observation. It follows closely behind Saturn. On October 1 it transits around 11:15 PM and on November 30 it transits around 7:15 PM.

Urban Observing Program

The following **deep sky objects** are well placed for observing during October and November: NGC 7009, M15, M2, M39, NGC 7160, NGC 7209, NGC 7243, NGC 7662, NGC 7789

The following **Double Star** is well placed in October and November: Delta Cepheus

Public Astronomy Events



DEPARTMENT OF ASTRONOMY AND STEWARD OBSERVATORY

Public Evening Lecture Series Fall 2024

Public Evening Lectures will **begin at 7:30 p.m. in Steward Observatory Room N210.**

All of the lectures and the use of the telescope are free of charge and open to the general public.

For more information, check out the [Web Page](#).

You can watch each lecture live on [ZOOM](#). To stream recordings of previous lectures, [click here](#).

Oct. 7	Prof. Andrew Woods UA College of Law	<i>An Introduction to Space Law</i>
Oct. 21	Dr. Vasileios Paschalidis Steward Observatory	<i>Paradoxes & Conundrums of Relativity</i>
Nov. 4	Christa DeCoursey Steward Observatory	<i>Discovering the Most Distant Supernovae Thus Far with JWST</i>
Nov. 18	Dr. Alfred McEwen Regents Professor Lunar & Planetary Lab	<i>Jupiter's Insanely Volcanically Active Moon Io</i>
Dec. 2	Dr. Dominika Itrich Steward Observatory	<i>Born in the Spotlight: the Mysterious Proplyds</i>




COLLEGE OF SCIENCE
**LUNAR & PLANETARY
LABORATORY**

LPL Evening Lecture Series

All Lectures are at the Kuiper Space Sciences Building, Room 308 and Zoom from 7:00pm to 8:00pm. Check out the LPL Evening Lecture Series [Page](#).

Oct 16	Dr. Jeffrey Andrews-Hanna	<i>Lunar time machine: Traveling back to the earliest days of our nearest neighbor</i>
Nov 20	Dr. Angela Marusiak	<i>What's shaking on the Moon?: What we can learn from earthquakes on the Moon.</i>

Ready... Set... Relaunch!



October 4, 2024
Whipple Observatory's new exhibits open on Friday, October 4, 2024.

We look forward to sharing our new exhibits program with you! Please note the Observatory's new schedule and hours below, as well as important information about timed ticketed entry requirements and available tours.

[Get tickets for the Science Center.](#)

Tubac, Arizona Achieves Dark Skies Certification!

Congratulations to Tubac and to all Tucson people who advocated for this important designation! After an extensive application and rigorous certification process, Tubac has earned the prestigious designation as Arizona's newest International Dark Sky Community. This accolade places Tubac among an elite group of only 48 communities worldwide that have achieved this certification. Arizona, home to the certifying non-profit DarkSky International, now features six International Dark Sky Communities, further cementing the state's role as a leader in dark sky preservation efforts.



“Arizona has been a strong leader in dark sky conservation since DarkSky International's formation in Tucson in 1988,” says DarkSky International Program Associate Michael Rymer. “Tubac is another great example of dedication to the protection of dark skies in Arizona through lighting management policy and education, and the volunteer efforts of Emilio Falco and his team have been exceptional.”

The renowned Smithsonian's Fred Lawrence Whipple Observatory is just 12 miles northeast of Tubac. The Observatory pioneers studies ranging from galaxies to supernovae to exoplanets. Its operations depend critically on dark night skies.

DarkSky's mission is to preserve and protect the nighttime environment and our heritage of dark skies through environmentally responsible outdoor lighting. Learn more at darksky.org.

DarkSky International; Amber Harrison, Dark Sky Places Program Manager
520-347-6363, amber@darksky.org

For more [Information](#)

TUCSON MASTERWORKS CHORALE
OUR 75TH YEAR PRESENTS

MEASURE ME, SKY

A CELEBRATION OF MUSIC OF THE SPHERES

Two Concerts

Saturday, November 23, 2024 at 6:00 pm

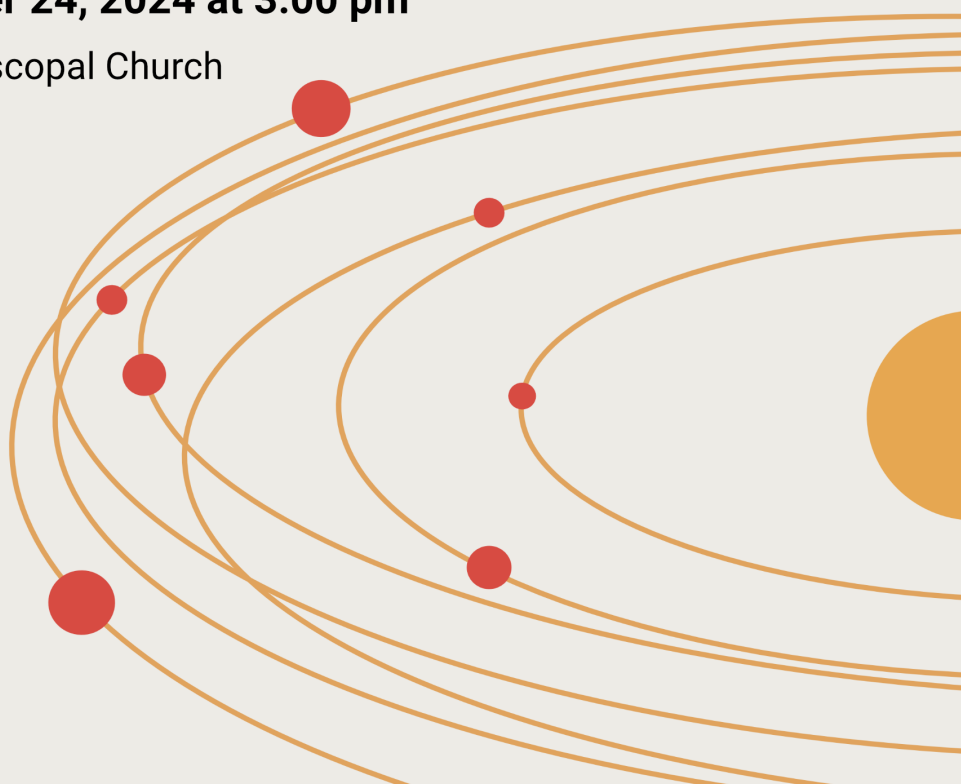
Christ Church United Methodist

655 N. Craycroft Rd.

Sunday, November 24, 2024 at 3:00 pm

Grace St. Paul's Episcopal Church

2331 E. Adams St.



tucsonmasterworkschorale.org

Tickets go on sale in October



Volunteer at Kitt Peak National Observatory!

Apply Here



*We are looking for daytime
Docents to show visitors around one of the
largest collections of optical telescopes on the planet.*

Enjoy and share with the public the prestige, legacy, and ongoing cutting-edge research happening every day during our daytime programs.

- FREE daily shuttle service to and from our Headquarters in Tucson
- FREE meals while working on the mountain
- New Docent training class starts September 2024

The Kitt Peak Visitor Center is our guest's first stop on any visit and their springboard to informative daytime tours, nighttime stargazing and telescope viewing programs, as well as fascinating exhibits, a terrific gift shop, and beautiful panoramic mountaintop views!

*We are looking for Evening Guides
to show visitors around one of the largest
collections of optical telescopes on the planet.*

Enjoy and share with the public the prestige, legacy, and ongoing cutting-edge research happening every day during our evening programs.

- FREE daily shuttle service to and from our Headquarters in Tucson
- FREE meals while working on the mountain

The Kitt Peak Visitor Center is the first stop for guests on any visit and their springboard to informative daytime tours, nighttime stargazing and telescope viewing programs, as well as fascinating exhibits, a terrific gift shop, and beautiful panoramic mountaintop views!

Email: KPVC@noirlab.edu



Skyward

By Dr. David H. Levy

October 2024



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.

Morello’s outline there is wrongly traced,
His hue mistaken; what of that? or else,
Rightly traced and well ordered; what of that?
Speak as they please, what does the mountain care?
Ah, but a man’s reach should exceed his grasp,
Or what’s a heaven for?

Robert Browning, Andrea del Sarto, 1855.

Decades ago during the fall of a year that I recall might have been 1972, I attended Yom Kippur services at our family synagogue in Montreal, Congregation Shaar Hashomayim. The Congregation had instituted a new feature that year, a Yom Kippur Teach-in. I decided to give it a try. The topics were completely open that year, and the audience applauded every comment. I was a trifle nervous about saying anything, but I stood up and made a comment about God, and how our concepts of God are as different as each of us might be. I ended my comment with these two lines from Robert Browning’s famous Andrea del Sarto:

Ah, but a man’s reach should exceed his grasp,
Or what’s a heaven for?

My comment did get a smattering of applause. Afterward my life went on, and on, until few days ago, when writing a book featuring poetry about the night sky, I chanced upon Browning’s poem again.

This Browning poem is surely one of his most famous and insightful. The poet suggests that Mount Morello, in Italy near Florence, is “wrongly traced.” He then supposes that the mountain itself, if it has consciousness, wouldn’t care if its outline was correct or not: “what does the mountain care?” In the final two lines of this section the poet transcends geographically from Morello to infinity, from earthly cares to the outermost reaches of space and time: “Or what’s a heaven for?”



Elm tree at Acadia - David Levy

It is not often that someone can compare the reading of a great and fabulous poem with a sporting event, but here I try. I like to compare these lines of “Andrea del Sarto” with watching a baseball game. In my experience a typical baseball game consists of lengthy stretches of strikeouts, some walks, breaks between innings, and other trivia. But these breaks are interspersed with exciting base hits, doubles, triples, and home runs. These events often happen without warning, and a large crowd in the stands can be electrified instantaneously, rising to its feet as the ball heads off the field, into the stands. It does seem odd to compare a work of English Literature to a baseball game, but in this case, it works..

Writing about ball games, I have missed a football game to see a deep partial eclipse of the Moon on August 26, 1961, in which 99.2 percent of the Moon was embedded in the Earth’s umbral shadow. In this way the stadium offers us yet another way to enjoy the night sky, and to remember that even during sporting events, we can enjoy the night sky by looking at it briefly from our stadium chairs. When we do that during the most important game of all, we are truly winners.