

THE OBSERVER

VOLUME 37 ISSUE 10



An Annular Eclipse over New Mexico
APOD September 10, 2023 - Credit & Copyright: [Colleen Pinski](#)

From the Desk of the President by Claude Haynes

October already, and it will be a busy month. The Annular Eclipse (which doesn't happen every year despite the name) is on Saturday, October 14. The observatory will be open for public viewing from 8am – Noon that day. Based upon attendance during 2012 it will be busy. If you have a solar equipped telescope and are not travelling, it would be great if you could join us on the lawn beside the observatory. Small scopes work best because we can't drive on the grass. Let me know at grco@evaonline.org, if you can give us a hand that day. If you are travelling to the centerline, please take pictures and be ready

to share your experience with us at the October meeting.

The October meeting will be member focused. There is a swap meet from 7:00-7:45pm. Bring your orphaned equipment and find it a new home. We will have tables set up and there will also be some EVAC donated equipment for sale as well. The meeting will involve you. Please email me at president@evaonline.org if you have pictures to add to the PowerPoint presentation. We want to see your solar photos, but also the site and people you interacted with. We also want to know where you are planning to

UPCOMING EVENTS:

EVAC Public Star Party - October 13th
Annular Solar Eclipse - October 14th
EVAC Meeting - October 20th

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From the Desk of the President

by Claude Haynes

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to go for the Total Solar Eclipse on April 8, 2024.

The All-Arizona Star Party is moving from October due to the eclipse. We doubted you want to travel two hours for a partial view when you can travel a few more hours for a better one. The Star Party will be the weekend of November 10-11 at the North Hovatter Observing Field. Details are on the website under Meeting+Events. There is a map and directions. The schedule is similar to prior years. Toilets arrive on Thursday and will be picked up the

following Thursday. Friday there is a pot luck under the tent and late night snacks. Saturday adds our Temperance Union Happy Hour at 5pm, followed by a raffle and chili dinner. In an effort to curb inflation, raffle tickets are still only \$1 (with 6 for \$5) and dinner is only \$5. We hope to see you there for a fun weekend with the stars, and the stars of AZ amateur observing. Keep looking up.

Your President
Claude Haynes

EVAC ZOOM Meeting Minutes for September 15th, 2023 at 07:30 P.M. AZ Time

by James Yoder

Meeting Minutes

YouTube: Note, many EVAC monthly meetings can be viewed on YouTube. Just search for the East Valley Astronomy Club on the YouTube website to locate the recordings.

Welcome

EVAC president Claude welcomed club members to the meeting and reviewed the agenda. New visitors were recognized and welcomed. Introduction of Officers and Board for 2023:

- President – Claude Haynes
- Vice President – Woody Sims
- Secretary – James Yoder
- Treasurer – Brooks Scofield
- Board Members: Don Wrigley, Tom Mozdzen, Steve Bradshaw, Alex Beck, David Coshow
- Property Manager: James Yoder
- Webmaster/Newsletter Editor: Marty Pieczonka
- Events Coordinator – (Position is Open)

General Business

Attendance: 42 in person, 29 online.

Visitors Recognition: 2 new visitors.

Elections in November: We will have the following positions open for November elections:

- President
- Two Board Members
- Events Coordinator

EVAC Email List – Please note you are NOT automatically added to our announcement list when you join EVAC. If you would like to receive updates and information from EVAC please subscribe to the [announcements list](#).

EVAC Sales: We have a wide selection of used equipment at steeply discounted prices. Check out our webpage for the latest selections.

EVAC Rentals: We continue to expand our rental program. In addition to what we currently have (see page 7), we have added:

- 1.25" Visual Filters Package for Deep Sky Objects – 12 Visual Filters (\$5 for 24 hours. \$15 for one week.)
- Imaging Kit for Planetary and Moon Imaging (\$5 for 24 hours. \$20 for one week).

Superstition Mountain Astronomical League(SMAL)

Has by weekly meetings on Wednesdays from 10am to noon and is welcome to all who would like to join in the conversation.

GRCO - Open for public viewing Friday & Saturday Sunset – 9:30pm (weather permitting).

- Meteorites Collection: Display and case have been completed and will be at the observatory.
- Saturday, Sept 23: Is Astronomy Day and there will be a solar viewing from 9am – 2pm.

Main Presentation: Visual Observing in the Golden Age of Astronomy.

Presenter: Dr. Paul Knauth

Dr Knauth discussed many of the modern developments that have revolutionized visual astronomy including various designs of telescopes, eyepieces, telescope mounts, Goto technology, Filters, Binoculars and the latest Night vision technology.

Next Monthly Meeting

October 20th 7:45 pm.

- EVAC Members Swap Meet (7:30 – 7:45).
- Members feedback, & photos from Ring of Fire Eclipse.

The Backyard Astronomer

by Bill Dellenges

The October Skies

The odd thing about October is, though we're in the fall, the western half of the night sky is still full of summer constellations. You'd think they would be history by now. But no, the Summer Triangle is still with us. In fact, at the beginning of this month Deneb is parked at the zenith! Well, it is what it is, so let's press on. We'll just concentrate on the eastern half of the firmament.

Dominating a huge portion of that sky is the Great Square of Pegasus (The Flying Horse). The Square represents the main body of the horse. Each side of the Square is about 15 degrees in length. The brightest star is Alpheratz, magnitude 2.1, located at the Square's upper left corner. It's technically assigned to Andromeda (The Chained Princess) as Alpha Andromedae. In ancient times it was shared with both constellations and called Delta Pegasi or Sirrah. That changed in 1928 when the I.A.U cleaned up the constellation mess. They're also the folks who demoted Pluto in 2006. I miss Pluto. It was the 9th planet to me for 51 years.

Below Pegasus lies the realm of the Watery Constellations, aka the Celestial Sea: Capricornus, Piscis Austrinus, Aquarius, Pisces, Cetus and Eridanus, all being related to water. Another thing they have in common is - they are DIM. You'll need a dark sky to identify them. However, there are two bright beacons down there to assist you in navigating these waters. By a stroke of celestial luck, the western stars of the Square point south (450) to one of them - Fomalhaut (mag 1.2) in Piscis Austrinus. The Square's eastern two stars point south (350) to Diphda (aka Beta Ceti or Deneb Kaitos, mag 2.0). This month, there's a third bright guest cruising through the area - Saturn! You

can't miss this magnitude +0.6 planet positioned to the lower right of the Great Square and straight up from Fomalhaut. The ring system is currently closing, with its north side tilted only 10 degrees to our line of sight. The rings will be edgewise in March 2025, so be sure to check it out now - a ringless Saturn is a disappointing sight to behold.

Celestial Sights 101: The main attraction in the eastern half of the sky has to be the Andromeda Galaxy, M31, in Andromeda (where else would it be?). At a distance of 2.5 million light years, it's the closest major galaxy to us. It's bright enough to see with the naked eye in dark skies and shows well even in small telescopes and binoculars. Look for its two satellite galaxies M32 and NGC 205 on either side of M31. NGC 205 can be a little tricky to spot as its light is more spread out than M32. NGC 253 is another fine galaxy sitting just above the seabed, floating 8 degrees below Beta Ceti but technically resides in Sculptor. In my telescope, the galaxy reminds me of a fat cigar. Pegasus is home to the fine globular star cluster M15. Gazers without Goto's can easily find it - a line from Theta and Epsilon Pegasi point northwest right to it. Double stars anyone? Try this nice triple star in Cepheus, Stuve 2816 (SAO 33626). A nice equal magnitude "Cat's Eyes" double is Kuma, Nu Draconis (SAO 30477, the dimmest of the four stars that make up the Dragon's head. Even binoculars can split it. Before you put those binoculars away, let's transgress just this once to the western sky for a moment. I recently discovered my 8x42 binocular can gobble up the entire constellation of Delphinus and it looks great, like a very sparse, but bright star cluster. Check it out! This was just a brief look at the fall sky, there's much more to see. Feel free to explore it, either above or below the Celestial Sea.

EVAC Outreach Events

October Outreach Events:

- Friday, October 13 - 2nd Friday Riparian Star Party.
- Saturday, October 14 - Annular Eclipse
- Thursday October 19 - Chandler - Gilbert Community College

Details can be found on the EVAC website. Just go to

www.evaconline.org/events-meetings. Click on the calendar entry for location and times. Contact Claude Haynes (interim Events Coordinator) if you can volunteer at an event. It is helpful to know who is coming so we can inform you of where the observing field is located and how to gain access.

What's Up - Some Astronomical Events of Note for October 2023

by James Yoder

Here we make note of some interesting astronomical occurrences for the month that are visible from the Phoenix Metro area. Events we are on the lookout for include:

- [Transits](#) – When a celestial body passes directly between a larger body and the observer. For example when one of the inner planets such as Venus passes in front of the Sun ([image](#)).
- [Eclipses](#) – Specifically we are focused on [Lunar Eclipses](#) (where the Earth passes between the Sun and the Moon) and [Solar Eclipses](#) (where the Moon passes between the Sun and the Earth).
- [Comets](#) – For the comets we are focused on bright comets ([image1](#), [image2](#)) or ones that may have a near miss with other astronomical objects such as globular clusters, planets, nebula, etc ([image](#)).
- Planet Activity – [Oppositions](#), [Conjunctions](#) ([image1](#)) and [Occultations](#) ([image2](#)) of note that may be an opportunity for observation or photography. For Jupiter, we also note when multiple moon shadow transits are visible.
- Visually Interesting astronomical alignments such as Moon & planets arrangement in the morning or evening sky([image1](#)).

Equipment Requirements are noted as follows:

- NE – **N**aked **E**ye event, no equipment needed to appreciate this.
- BL – A decent pair of **B**inoculars are recommended.
- CT – **C**amera on a **T**ripod can be used to capture this event.
- TS – **T**elescope is required to view this event.

Date	Event	Time	Equipment	Images	Ref	Comments
10/14	New Moon		NE			
10/14	Annular Solar Eclipse	08:13am-11:00am	NE, BI, CT	1	1 , 2	Remember to use proper eye protection/filter for this event. Partial in Phoenix Metro Area
10/19	Jupiter Double Moon Shadow	10:56pm - 00:41am	NE	1 , 2		
10/28	Full Moon		NE			

These events and others throughout the year can be viewed on my webpage [here](#), Happy hunting!

THIRD QUARTER MOON ON OCTOBER 6 AT 06:47

NEW MOON ON OCTOBER 14 AT 10:55

FIRST QUARTER MOON ON OCTOBER 21 AT 20:29

FULL MOON ON OCTOBER 28 AT 13:24

Deep Sky Imaging Target Highlights for October

by James Yoder

The average low [temperature](#) for October in the Phoenix metro area is 65° F. October 14th is a new moon with Astronomical dusk at 7:17 pm and Astronomical dawn at 05:37 am, giving us 10:20 hours of imaging time.

In this month's list there are over 139 object/configuration combinations provided of just about every class of deep sky object including 6 Globulars, 15 Open Clusters, 21 Planetary Nebulas, 60 Nebula and 9 Dark Nebula, 28 Galaxies/ Galaxy Clusters. There is a wide variety of various objects accessible this time of year.

Bright Moon Targets – These are small targets that have a high surface brightness, these would be globular clusters and Planetary Nebula, that with appropriate filters can likely be imaged even in a near full moon situation.

The [Prospective Imaging Objects Guide](#) (PDF download) covers objects that reach their highest point in the sky and cross the meridian (aka Transit) sometime between Astronomical Dusk to Dawn. We will be highlighting objects that transit roughly between 10pm and 2am. This ensures maximum imaging time over the month.

Happy Hunting!

Some Highlighted Targets for October

Configuration	Page	Object(s)	Type	ImageLink
Hyperstar	25	NGC-7822 (CED-214) Mosaic (2 frames)	Nebula	520 min
Hyperstar	29	Andromeda Galaxy (M-31)	Galaxy	215 min
Focal Reducer	39	Fish Head Nebula (IC-1795)	Nebula	480 min
Focal Reducer	40	M-77, NGC-1055	Galaxies	205 min
Primary Focus	22	NGC-7479	Galaxy	230 min
Primary Focus	23	NGC-7635	Nebula	165 min
Primary (Moon)	45	Oyster Nebula (NGC-1501)	Planetary Nebula	124 min

Resources:

- [ArtCentrics.com](#) – [October Potential Targets Guide](#) (PDF download)
- [Telescopius](#) – Lookup objects, plan imaging session.
- [Field of View Calculator](#) – Test Different Telescope, camera & eyepiece combinations.
- [Astrometry.net](#) – Solve images captured by your system. Get image RA/DEC, pixel scale, image size, orientation of the image you have taken.

Mount for Sale

I'm asking 200.00 dollars. It has an upgraded ADM Saddle and an ac-adapter. In excellent condition. My wife and I are moving up to Vernon AZ. Trying to get rid of stuff.

[Mike Luciano](#)



Monthly Meetings will be held in person and also presented live online using Zoom. See the EVAC Website for updates.

The monthly general meeting is your chance to find out what other club members are up to, learn about upcoming club events and listen to presentations by professional and well-known amateur astronomers.

Our normal in-person monthly meetings have resumed. Also, the meetings will continue to be available online via Zoom.

Our meetings are held on the third Friday of each month at the Southeast Regional Library in Gilbert. The library is located at 775 N. Greenfield Road; on the southeast corner of Greenfield and Guadalupe Roads. Meetings begin at 7:30 pm.

Visitors are always welcome!



**Southeast Regional Library
775 N. Greenfield Road
Gilbert, Az. 85234**



Find Out What's Happening – Join EVAC-Announce List

If you would like to receive email announcements about EVAC meetings and activities, please join the EVAC–Announce mailing list. Click on the link below to subscribe. Enter your full email address in the box titled User Options and press OK. You will receive a confirmation email. Your privacy is respected by EVAC and we will never sell your email address, or use it for non-club relevant solicitations. This mailing list is designed for communication from EVAC, and does not enable users to respond to the message. If you wish to contact club officers, please use the list in the Contact-Us area on the Home page of our EVAC website. To subscribe to the EVAC–Announce mail group click: <http://www.freelists.org/list/evac-announce>. To unsubscribe use the same link, enter your email address and select Unsubscribe from the “Choose An Action” list. Another list to consider is AZ-Observing@groups.io, simply click on this link <https://groups.io/g/AZ-Observing> and follow the instructions on the page. EVAC also has a Facebook Group where members may share ideas, photos, and Astronomy related information. To join: EVAC Facebook [Group](#).

The Gilbert Rotary Centennial Observatory (GRCO) also has a Facebook Group where members may share ideas, photos, and Astronomy related information. To visit, please click on Gilbert Rotary Centennial Observatory - GRCO.

Gilbert Rotary Centennial Observatory is open on Friday and Saturday from sunset until 9:30pm. We need volunteers. Training is provided. Help us engage the community in the wonders of the night sky. Email grco@evaonline.org for information.

Used Equipment For Sale at Great Prices

The East Valley Astronomy Club (EVAC) has just posted used astronomy equipment for sale.

- Sales are “As Is”
- Pick-Up-Only

Contact the EVAC Property Director (James Yoder) at properties@evaonline.org for more details and to answer any questions. Detailed information on products being offered can be found on the EVAC Sales webpage [HERE](#). This page includes a brief description of the items, photos and references (i.e. users manuals, ect.)

Equipment being offered for sale this month include:

- **Celestron CGX Mount.**
- **Celestron NexStar 8 GPS.**
- **Meade 8” with tripod on fork mount and clock drive.**
- **Meade 4.5” Newtonian.**

EVAC Equipment Rental Program

The East Valley Astronomy Club (EVAC) Is introducing a rental program for EVAC Members. Details on terms and equipment can be found on the [EVAC Rental page](#). Currently the following items are available for rent:

- **Celestron C-8 with Nexstar GoTo Mount** \$25 first week, \$20 each week after (up to 4 weeks).
- **Celestron 10” Dobsonian Telescope** \$25 first week, \$20 each week after (up to 4 weeks).

Telescopes come with all equipment needed for observation (ie eyepieces, finder scope, power supply, etc.)

Contact the EVAC Property Director (James Yoder) at properties@evaonline.org for more details and to answer any questions.



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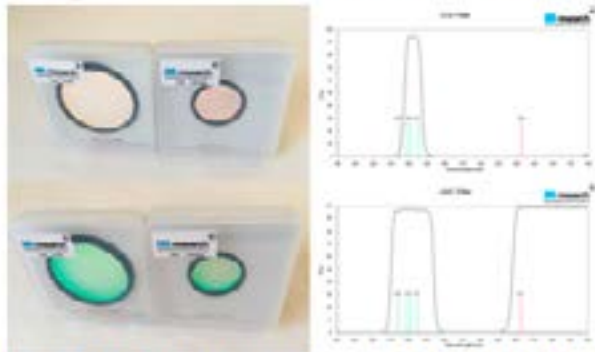
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www.apache-sitgreaves.org

OCTOBER 2023

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

October 13 - EVAC Riparian Star Party

October 19 - Chandler-Gilbert Community College

October 14 - Annular Eclipse

October 20 - EVAC Monthly Meeting

NOVEMBER 2023

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

November 10 - EVAC Riparian Star Party

November 17 - EVAC Monthly Meeting

East Valley Astronomy Club - 2023 Membership Form

Member Dues (Based on the month you are joining the club)			
	Individual	Family	Student (18yr+ with ID)
January - June	\$30.00	\$35.00	\$20.00
July - December (<i>Renew in January</i>)	\$15.00	\$20.00	\$10.00
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Renewal Dues (Current Members Only)			Astronomical League: \$7.50 Annually: <input type="checkbox"/>
Individual	Family	Student (18yr+ with ID)	
\$30.00	\$35.00	\$20.00	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Name Badges: Quantity: _____

\$10.00 Each

Name to imprint: _____

Total amount enclosed:

Please make check or money order payable to EVAC.
Payment will be made using PayPal:

Name: <input style="width: 95%;" type="text"/> Address: <input style="width: 95%;" type="text"/> City State Zip <input style="width: 95%;" type="text"/>	Phone: Email: URL For website	<input style="width: 95%;" type="text"/> <input style="width: 95%;" type="text"/> <input style="width: 95%;" type="text"/>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------

Would you be interested in our outreach program? Yes No

How did you discover East Valley Astronomy Club?

Liability Release Form

In consideration of attending any publicized Star Party hosted by the East Valley Astronomy Club (hereinafter referred to as "EVAC"), the receipt and sufficiency of which is hereby acknowledged, I hereby affirm that I and any related entities, predecessors, successors, affiliates, attorneys, guarantors, insurers, transferees, assigns, parents, spouses, children, subsidiaries, accountants, officers, directors, employees, agents, shareholders, members, and trustees, past and present, hereby forever release, acquit and discharge to hold EVAC and its related entities, predecessors, successors, affiliates, attorneys, guarantors, insurers, transferees, assigns, parents, spouses, subsidiaries, accountants, officers, directors, employees, agents, shareholders, members, and trustees, past and present, from any and all causes of action, claims, losses, damages, liabilities, expenses (including attorneys' fees) and demands of any nature whatsoever, known or unknown, that in any way relate to, arise out of, or concern EVAC and/or my presence on the premises of any EVAC Star Party and related areas, whether or not those causes of action, claims, damages, liabilities, and demands are part of the specific subject matter of EVAC or any EVAC Star Party. This release is intended to and does cover all injuries and damages, and the consequences thereof, whether known or unknown at the time of the execution of this release, which have occurred or may hereafter occur or which may hereafter be discovered, and which may have been caused or may be claimed to have been caused by the said incident, and specifically includes, but is not limited to, bodily injuries, mental and emotional injury, pain and suffering, medical treatments, and loss of earnings or income.

My signature upon this form also indicates agreement and acceptance on behalf of all minor children (under 18 years of age) under my care in attendance. EVAC only recognizes those who are members or invitees and who also have a signed Liability Release Form on file as participants at an EVAC Star Party.

The Observer is the official publication of the East Valley Astronomy Club. It is published monthly and made available electronically as an Adobe PDF document the first week of the month. Please send your contributions, tips, suggestions and comments to the Editor at: news@evaonline.org. Contributions may be edited. The views and opinions expressed in this newsletter do not necessarily represent those of the East Valley Astronomy Club, the publisher or editor.

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The East Valley Astronomy Club is a 501(c)(3) nonprofit charitable organization.

www.evaonline.org

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Events Coordinator: Claude Haynes

Property Director: James Yoder

Refreshments: Open

Observing Program Coordinator: Wayne Thomas

AL Representative: Brooks Scofield

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