

# THE OBSERVER



M20 and M21 (APOD 12/30/2019)  
Image Credit and Copyright: Stanislav Volskiy

## From the Desk of the President by Claude Haynes

There are memorable moments of surprise. Don Wrigley and I just returned from the Grand Canyon Star Party where there was a small boy looking at the globular cluster M4 through Don's telescope. At first sight, he exclaimed "WOW!" with a loud excited voice that echoed across the canyon. That moment is indelibly etched in his mind; as well as those standing nearby with beaming smiles. EVAC has a proud tradition of outreach that impacts lives and minds. Despite increasing light pollution and a plethora of low earth satellites, the future of amateur astronomy is secure in the hands of a new generation that

continues to find amazement when exposed to the wonders of the night sky. We plan on resuming our 2nd Friday Star Party at the Riparian Preserve in August. If you are willing to bring a scope for viewing at that event, want to volunteer for our school public outreach, or at the observatory, please contact Alexandra Nachman ([events@evaconline.org](mailto:events@evaconline.org)) or me ([grc0@evaconline.org](mailto:grc0@evaconline.org)) to let us know.

Our June meeting was lots of fun. Sid Frede gave a great talk on getting started with Astrophotography. He is continuing that journey in July with a talk on taking and

## UPCOMING EVENTS:

*The July 15th EVAC Meeting will be held both online via Zoom and in person at the Gilbert Library. The speaker will be Sid Frede.*

## INSIDE THIS ISSUE:

<i>From the Desk of the President</i>	1
<i>EVAC June 17th Meeting Notes</i>	2
<i>Return to the South Rim</i>	4
<i>EVAC Outreach Events</i>	4
<i>Deep Sky Imaging Target Highlights</i>	5
<i>Announcements</i>	5
<i>Classified Ads</i>	6
<i>Meeting Maps</i>	8
<i>Calendar</i>	9
<i>Membership Form</i>	10

# From the Desk of the President

*by Claude Haynes*

*Continued from page 1*

processing the photos. Don't forget that past meetings recorded via ZOOM are available on our website under Meetings & Events. If you didn't hear Sid's talk, or you want a refresher before Part II, it is available on the website.

The July meeting is again Live and via ZOOM. The live part starts at 7:30 in the library meeting room with cookies and chat. We will start the ZOOM portion at 7:45 for remote attendees. This will give an opportunity for those at the library to have a few minutes to greet each other and enable us to offer the meeting straight through for remote attendees. This may not be a permanent format change, but we are giving it a try this month. Your input is always appreciated, so let us know how this works for you.

I am writing this just before our June 27 family night presentation in conjunction with the SE Regional Library. Based upon the current reservations it looks like it will be a great evening (even if the clouds don't allow viewing). Our next event is Monday, July 25, and I encourage you to recommend it to family and friends. Gordon and Alex are working hard to have a great presentation that includes some interactive fun. I am sure there will be many more "WOWs!" in our future.

Keep looking up!

Your President  
Claude Haynes

## EVAC Zoom Meeting Notes for 2022 June 17th, at 07:30 P.M. AZ Time

*by Club Secretary Gordon Rosner*

Greetings from your club Secretary.

We continue to recover to normal club operations with our second in-person monthly meeting. For this meeting we had 27 physically in attendance, down from last month's 50. But I will chalk that up to the Arizona summer heat and folks staying cool at home by watching the Zoom simulcast.

On with the meeting notes.

First, and again, the standard monthly stuff for you first time readers. For those who are regular readers, you can skip this paragraph. The following are my notes from our 17 June General Membership Meeting. All our monthly meetings are recorded and are available to watch via links in our club's website. If you missed this meeting, or want to watch again, you can watch the recording online. My notes published here are only a summary and certainly do not replace watching the actual video presentation. Hopefully I will provide just enough to spark a drive for our members and potential members to watch the recording.

The meeting started at 7:30PM with our club President, Claude Haynes, welcoming those in attendance and our Zoom viewers. He then introduced the club officers and gave a summary of the Grand Canyon Star Party he and

other club members attended. He then mentioned that EVAC will provide lectures on the James Webb Space Telescope on 27 June and 25 July Mondays at the Gilbert Library's Summer Family Events starting at 7:30PM in the same room we hold our monthly meetings. Check out the Gilbert Library's website for more information. During the meeting members took advantage of renewing their club memberships in-person with our Treasurer, Alexandra Nachman, and some bought club shirts and hats that were available. We also had a few new members sign up.

Quick surveys by a show of hands were made to see the participation of our FaceBook page, AZ Observing and EVAC Announce use, and desires of future meeting social breaks.

Our member presentation was given by Bob Buchheim, a regular member presenter we all know very well. Bob is a major force in the Society for Astronomical Sciences and gave us an overview of the society's recent symposium. His presentation centered on science that can be done with small telescopes and focused on research and replication using backyard-scale telescopes. He described the myriad of astronomical events that the professional astronomer using large telescopes just don't have the time to research. Plus, describing how our small telescopes can actually be better than large professional telescopes in certain data gathering situations. There are a lot more

# EVAC Zoom Meeting Notes for 2022 June 17th, at 07:30 P.M. AZ Time

by Gordon Rosner

Continued from page 2

amateur astronomers like us than professional ones. Bob gave examples of what the pro's wish amateurs would do to contribute to the knowledge pool. He listed some names in the Phoenix area that do these contributions to science with some of them being familiar members of EVAC. Bob also had some previous years' symposium books that he gave out to the audience. As always, Bob gave his usual informative and motivational presentation on how we can contribute to real astronomy science.

Claude then introduced EVAC club member Sid Frede for our main presentation titled 'Astrophotography is a Journey, Not a Sprint'. Sid's presentation is of such detail regarding beginning astrophotography that the presentation is split up into two parts. The first given this month and the second will be given next month. This month focused on image capture with next month's focusing on image calibration and image creation. Image capture began with his first film camera then moved to a digital camera and later added a telescope to it and thus began his astrophotography journey. Sid described his progression with more equipment squeezed in between his job, creating his own company, and supporting his family. His first serious target was the Moon then moved to M13 and of course the Orion Nebula showing us his successes and not-so successes learning from both. He described moving from an 'Alt-AZ' mount to an equatorial mount and how it improved his imaging capture and why. He described how he continued his journey through the beginning of the pandemic when telescope equipment got scarce and backlog predictions were pushed out further and further. By reading everything he could and visiting astronomy websites, he "Became a virtual expert without ever touching equipment.". He mentioned something I always say: "Listen to everyone but make your own decisions."

Sid then listed some things he learned on his journey's beginnings on what equipment he should have bought at first. He then presented such things as off-axis guiding, describing prime focus, and how to calculate the required spacers to achieve it. Sid's 'Observatory' is his backyard and tripod mount. So, his presentation continued on lessons learned and how he turned his limitations into ultimate journey successes.

Sid then talked about different types of software and the ones he likes and uses. He then went into Polar Alignment and the number of ways that it can be done. Then went into guiding, types of cameras, and focusing showing how a common clothespin can be used just as well as a \$300 focuser. He then went into subjects such as Plate Solving, Dithering, Meridian Flip, and creating an evening plan. He completed his presentation with some fabulous images he has taken in his backyard on a tripod.

Sid's was an excellent presentation on his journey. I am often asked by inquisitive people what is all involved with serious beginning astrophotography. My answer now is "Watch Sid's presentation". Be sure to join us during next month's meeting as we continue to ride along on Sid's journey.

Claude thanked the presenters and those in attendance and those on Zoom and reminded everyone that the next meeting will be on 15 July opening at 7:30PM but the actual Zoom simulcast will begin at 7:45PM since we will return to a social event for in-person meeting attendees at the beginning. See Claude's column above for details. The meeting will again be at the library. Claude closed the meeting at 8:57PM.

Gordon Rosner  
EVAC Secretary

**FIRST QUARTER MOON ON JULY 6 AT 19:48**

**FULL MOON ON JULY 13 AT 11:37**

**LAST QUARTER MOON ON JULY 20 AT 07:18**

**NEW MOON ON JULY 28 AT 10:54**

# The Backyard Astronomer

by Bill Dellinges

## Return to the South Rim (GCSP 07-2016)

After five years of participating in the Grand Canyon Star Party at the North Rim, I decided to try the South Rim this year. In my absence the event's location had changed from Yavapai Point to the Visitor Center and I was interested in how that might be working out – very well as it turned out. About the only advantage Yavapai had was that you could set up your scope next to your car. The downside was securing a parking space in competition with hundreds of tourists who for some reason felt they could only view sunset from that location. Then there were the Park's buses weaving their way through the parking lot until midnight, sometimes missing telescopes by only one meter!

The Park currently sets aside a large parking lot next to the Visitor Center for the telescopes. You are allowed to drive into the lot to set up your equipment but must move your vehicle to an adjacent bus parking lot. There were no buses there after dusk during my three night stay. And it's only minutes away from the telescope field thus easily reached for those items you may have forgotten when you set up your equipment. I'm not sure if the Park encourages it, but I noticed each night several gazers set up scopes in the bus parking lot apparently to avoid the somewhat chaotic conditions in the main lot which one night saw 58 telescopes in action. I used only 7x50 binoculars on a tripod my first night as I arrived late and was unfamiliar with this new South Rim arrangement, and there were cirrus clouds to contend with. The next night was clear and I used my Celestron Evolution 8 to snag 103 victims according to my counter. Later observing alone, I was amazed at how dark the sky was compared to sites around the Phoenix area – even Picketpost. In the scope the background sky was DARK and loaded with stars wherever I looked. It was like I had doubled my aperture (ok, that might be a slight exaggeration). But I

also noticed something else. During star talks I often say the spring and fall skies are star poor regions because we're not looking directly through the main Galactic plane as we do in summer and winter. But that's truer for light polluted skies whose fainter stars don't shine through. At the Grand Canyon in June, we were looking primarily at spring constellations as the summer constellations were still rising in the east. I was rather shocked to notice the Grand Canyon's spring sky, while not hosting a great number of blazing suns (only Regulus and Arcturus) still displayed a LOT of stars! Lesson learned: I'm going to have to revise my star talks – in a dark sky there are myriad stars regardless of the season.

I saw a few familiar faces there. EVAC's Don Wrigley, Claude Haynes and Wayne Thomas were in attendance. Dean Ketelsen of the Tucson mirror lab was on the scene with his C-14 and its stencil reading "My other telescope is an 8 meter." Jim and Vickie Palmer who often assist Tony LaConte at his stargazing programs at local parks in Phoenix, seemed to have set up a commune gathering in the bus lot. Joining them was Sky Watcher's Kevin Lagore, who in addition to his 6" Sky Watcher refractor, displayed a fine meteorite collection. The best view of Mars I saw was in a 4" Astro-Physics Traveler at 250x with a moon filter. There were two APM 27x100 APO binoculars on the field that looked absolutely stunning. They sported 90 degree eyepieces. They looked identical to the new Lunt 27x100 binoculars, except the latter has 45 degree eyepieces. The first pair was on an APM affair reminiscent of Televue's Telepod. The other was mated to a Celestron Evolution single fork mount – an innovative mating.

I thoroughly enjoyed my return to the South Rim Star Party and hope to return next year. Since there are no stairs involved I might even consider bringing my CPC-11. Unless of course, the sirens of the North Rim call me back.

## EVAC Outreach Events

by Alexandra Nachman

Events are slowly picking up for EVAC! We have one event on June 27th with the Southwest Regional Library. We will be giving a presentation and then the audience can visit GRCO afterwards! Our next event is on July 25th with the same format- presentation followed by a GRCO visit. Both presentations will be linked- the first one in June will be all about space telescopes and how we view light through telescopes and the second one in July will be about Webb's first images. Both events are sure to be exciting.

Come out and join us! Event registration is available at the [Southwest Regional Library's calendar](#).

Stay tuned for events later this year! We have some exciting things in the works!

Alexandra Nachman  
Events Coordinator

# Deep Sky Imaging Target Highlights for July

by James Yoder

The average low [temperatures](#) for July in the Phoenix metro area is 83° F. July 28th is a new moon with Astronomical dusk at 9:05pm and Astronomical dawn at 4:02, giving us 6:57 hours of imaging time.

In this months list there are over 99 object/configuration combinations provided of just about every class of deep sky object including 20 Globulars, 13 Open Clusters, 10 Planetary Nebulas, 30 Nebula and 19 Dark Nebula, 7 Galaxies/Galaxy Clusters.

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 June

Configuration	Page	Object	Type	Image Link
Hyperstar	22	Fish on the Platter (B-144)	Nebula & Open Cluster	<a href="#">No Image</a>
Hyperstar	26	Butterfly Nebula (IC-1318)	Nebula	<a href="#">No Image</a>
Focal Reducer	11	IC-1274	Nebula	<a href="#">230 min</a>
Focal Reducer	20	Barnard's E (B-143)	Dark Nebula	<a href="#">No Image</a>
Primary Focus	23	Dumbbell Nebula (M-27)	Planetary Nebula	<a href="#">91 min</a>
Primary Focus	34	Pegasus Cluster (M-15)	Globular Cluster	<a href="#">Unknown</a>

## Resources:

- [ArtCentrics.com – July 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.

## 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 [gco@evaonline.org](mailto:gco@evaonline.org) for information.

## Classified Ads



[SkyPi Remote Observatory](#)

The darkest, most Pristine, sky in the continental U.S.!

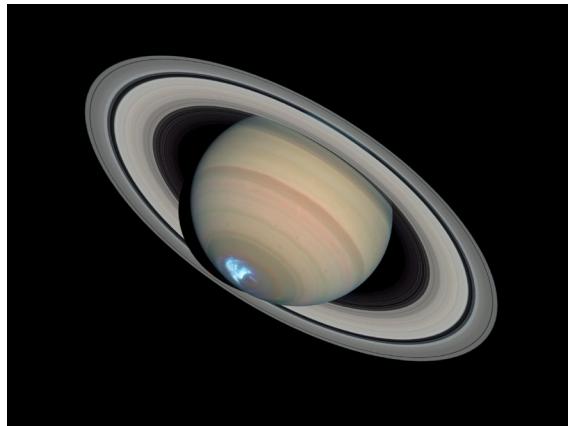
**At the site:** Bathroom facilities, running water, 5 pads w110v, wifi, acres of grassy camp sites.

**From the site:** Very Large Array 42mi E, The Astronomical Lyceum 55mi E, MRO Observatory 80mi E

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## Classified Ads



5757 N. Oracle Road   Tucson, AZ 85704   520-292-5010  
[www.starizona.com](http://www.starizona.com)

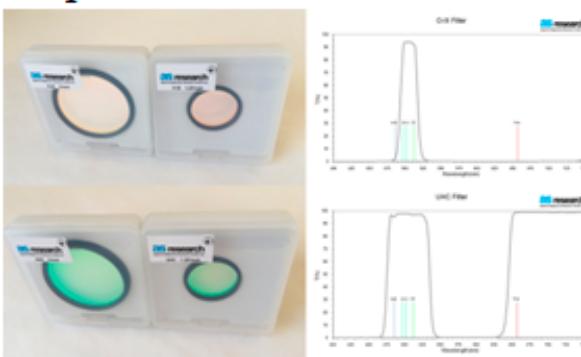
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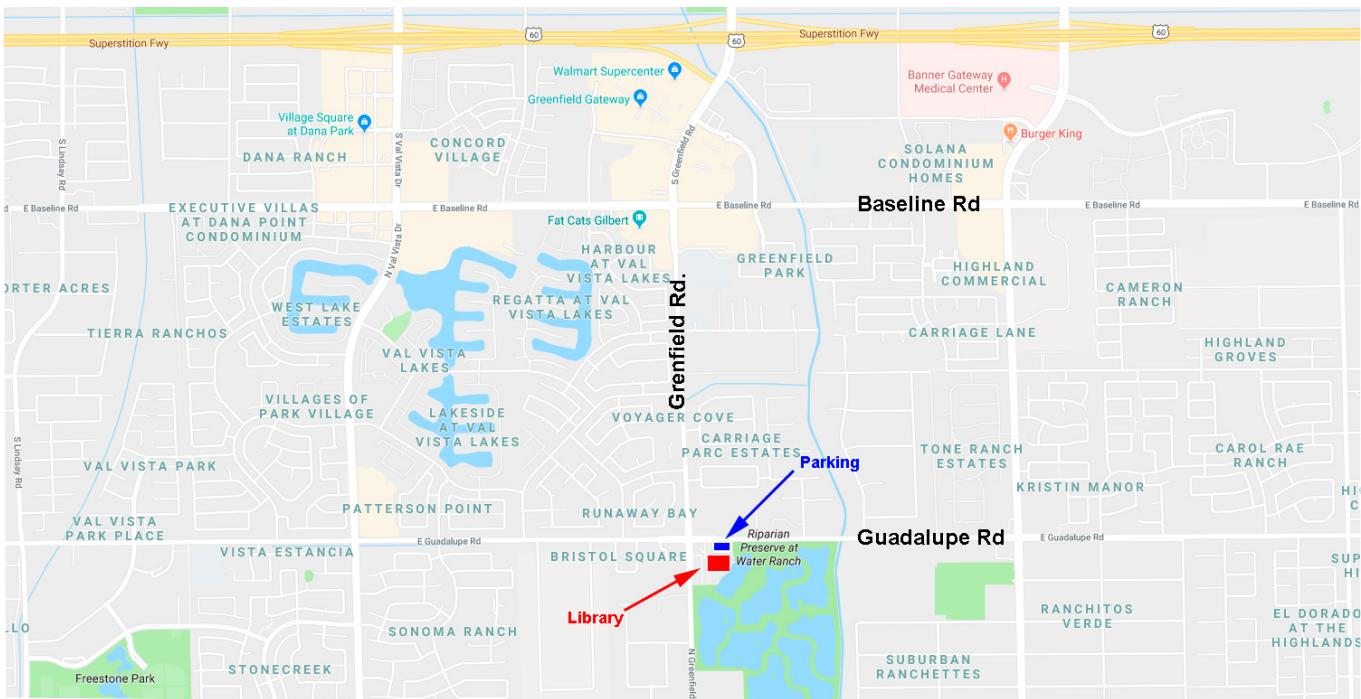
**Monthly Meetings will be held in person and also presented live online using Zoom. See the EVAC Website for updates. All other events are on hold until health concerns are resolved.**

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**



## JULY 2022

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						

**July 15** - EVAC Monthly Meeting Online via Zoom and in Person at the Gilbert Library.

**All other meetings and events have been cancelled until further notice.**

## AUGUST 2022

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			

**August 12** - EVAC Public Star Party

**August 19** - EVAC Monthly Meeting Online via Zoom and in Person at the Gilbert Library.

## East Valley Astronomy Club -- 2022 Membership Form.

**IMPORTANT:** All memberships expire on December 31 of each year

**New Member Dues** (select according to the month you are joining the club)

	<b>Individual</b>	<b>Family</b>
January, February & March	<b>\$30.00</b>	<b>\$35.00</b>
April, May & June	<b>\$22.50</b>	<b>\$26.25</b>
July, August & September	<b>\$15.00</b>	<b>\$17.50</b>
October, November & December	<b>\$37.50</b>	<b>\$43.75</b> <i>(Includes following year)</i>

**Renewal** (current members only):

**\$30.00 Individual**     **\$35.00 Family**

**Astronomical League: \$7.50 Annually (per person)**

**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: \_\_\_\_\_

Phone: \_\_\_\_\_

Address: \_\_\_\_\_

Email: \_\_\_\_\_

City  
State  
Zip

URL  
For website

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.

Signature \_\_\_\_\_

Date \_\_\_\_\_

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[www.evaconline.org](http://www.evaconline.org)

East Valley Astronomy Club  
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