

# THE OBSERVER



M65 in Leo  
Credit and Copyright Volker Wendel

## From the Desk of the President by Gordon Rosner

Greetings from your President.

As you must be aware, all EVAC meetings and events have been cancelled and postponed to a currently unknown date due to the club supporting the actions being taken to contain the spread of COVID-19. This includes our GRCO observatory. Our Observatory Manager, Claude Haynes, and I agreed on the GRCO closure and on 13 March Claude talked with our Town of Gilbert representative and she agreed. A revisit date of 11 April was decided to coincide with the town's review of the status of other town event closures being planned. On 15 March, our

club Board of Directors unanimously voted on cancelling the 20 March General Meeting and to review each subsequent meeting status each month. All EVAC outreach events planned with schools were also cancelled. The Forest Service has also closed the Picket Post Trailhead. When will EVAC return to normal operation? No one knows at this time. However, when it can be determined that it is safe, we certainly will. In the meantime, we will continue to publish our monthly newsletters that will contain news and updates.

## UPCOMING EVENTS:

*All events for April have been cancelled.*

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# From the Desk of the President

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Early in the month, I was receiving quite a few questions from other Arizona astronomy clubs on what were EVAC's plans as they were also being troubled by steps to take. This was a testimony to EVAC being a respected club and one of the main leaders in the state on astronomy. I decided to take steps to unite all Arizona clubs in sharing their plans and actions. I contacted each Arizona public astronomy club that maintains a publically available website asking if they wanted to be a part of an actions sharing program. Eight immediately responded with "YES!". Each club then started sending me their plans and actions that I included in a list, updated each day, and published an email back to all of them daily. This was a great help to all clubs as a decision support tool. Arizona public observatories got wind and some also joined in. This is a prime example of the high status and recognized leadership that our club has across the state and how proud each club member should be to be a member of our club. The program's list changes daily and is too large to include here. Each club updates their website, as we do, on the status of their club. If interested in knowing what a certain club is doing or not doing, see their public website.

So, what do we as astronomy enthusiasts do in the meantime when we are so used to the gatherings we so much enjoy, be they just sharing the night sky with friends or family members, or attending large events?

Of course... first take care of yourself! I'm sure we all know how to do that by now in these troubled times and no need to list again here. But, there are lots of things we can do to continue our astronomy enthusiasm and actually use this time to do some things we all know we wanted to do but just kept coming up with excuses to do them sometime later. Well, now is a great 'later'.

In no particular order, here are some ideas.

Learn the sky. Some folks rely on their computer controlled GoTo telescope mounts to have done that for them. Spend some evenings with a sky map, planisphere, or smartphone app to really learn the night sky. Can you pick out the constellations? What are the stories behind them? What are the names of the major stars in them? Where are the major deep sky objects located? 'Star Hop' to find them. Practice remembering how to find where they are. Now is a great time to get an understanding of where all the Messier Objects are. Use an app to help, such

as SkySafari, SkyView, or Stellarium, to name just a few of the more popular ones.

If you have a computer controlled GoTo telescope mount, learn your mount software and practice the alignment procedure. And, yes... Read the instructions!

Interested in beginning astrophotography? Watch what I think is the best beginning YouTube Channel on this subject... Trevor's 'AstroBackyard'. Also, visit his website at [astrobackyard.com](http://astrobackyard.com).

Go through and sort your equipment. If you're like me, I have accumulated lots of observing stuff. Some of which I forgot what they actually are. But, organize your tools, lights, eyepieces, filters, adapters, and check all your items that use batteries. Batteries can leak over time and can damage that thing you can't remember what it does. Charge any rechargeable batteries.

Experiment with eyepieces and filters. Really understand what each one does and see for yourself.

Read some of those books and magazines you have accumulated and always wanted to read.

Create an equipment wish list. Do you always wish you had something during an observing session but just forgot to get or kept putting it off? Use your wish list that you can refer to when ordering that next thing and see if you can save by including other desires.

Mark where your tripod legs go when you observe at home to help in mount alignment. Sink bricks into the soil, pour small cement pads, or make small chips or notches in your patio or driveway.

Surf the web. All of Carl Sagan's original hour long 13 episodes of 'Cosmos, A Personal Voyage' first broadcast in 1980, are on YouTube. A classic that is well worth watching again. Also, hunt down 'Cosmos: A Spacetime Odyssey', a 2014 followup with Neil deGrasse Tyson. And 'Cosmos: Possible Worlds', another 13 episode series on the National Geographic Channel currently being broadcast and again with Tyson. Anything NOVA does is fantastic and they have lots of astronomy and science videos. 'The Planets' series is currently showing on PBS. Search 'Sixty Symbols' in YouTube and find hundreds of excellent 5-10

# From the Desk of the President

*Continued from page 2*

videos on astronomy and physics. Are you a beginner astronomy enthusiast or new-comer? Watch 'Crash Course Astronomy' on YouTube. This series by Dr. Phil Plait has 46 episodes. It's five years old now, but still appropriate because of its basic focus. Some of these are part of the various videos shown at GRCO during public events.

Always look for ways to turn a negative into a positive and use these troubled times not to hurt our enthusiasm, but

## The Backard Astronomer

*by Bill Dellings (April 2020)*

### Spring Skies = Galaxyfest

Goodbye Orion, hello Leo. That's about it in a nutshell. The Winter Hexagon, with all its gleaming treasures, is sinking in the west, replaced by a less impressive cast of characters. The one constellation that does dominate spring skies is approaching the meridian – Leo the Lion. It's not difficult to see a lion in repose with its backward question mark asterism forming the head and chest and a triangle of stars forming the beast's hind quarters. Its brightest star Regulus symbolizes the Lion's heart. Leo is peppered with galaxies. NGC 2903, 30 million light years away (MLY) lies just off the Lion's nose, M95, 96, and 105 (all 30 MLY) are under his belly, and M65, 66, and NGC 3628 (30/30/35 MLY) are below his rear leg. I would be remiss if I didn't point out the interesting coincidence that the Lion is flanked by two extraordinary open star clusters – M44, the Beehive Cluster in Cancer and Mel 111, the Coma Berenices Star Cluster in (where else?) Coma Berenices. Because of their large size, both these objects are best seen in binoculars.

Below the Lion there is, at first glance, a huge void with the exception of one 2nd magnitude star, Alphard (the Solitary One) in Hydra the Water Snake. The rest of the constellation is quite faint and almost impossible to make out unless you have a fairly dark sky. Still, it's fun and challenging to try to follow its star pattern beginning at its head below Cancer and rambling southeast under Sextans, Crater, Corvus and terminating just short of Libra. That's one long constellation! Indeed, Hydra has bragging rights to being the largest of the eighty-eight constellations in terms of square degrees of sky (1302.84). FYI, the next four, in order of decreasing size are Virgo, Ursa Major, Cetus, Hercules and Eridanus. My mnemonic for them is Hate Viewing Under Clouds Hiding Earth. While in the

to grow it.

"Keep your feet on the ground and keep reaching for the stars."

Your President,

Gordon Rosner

lair of this long snake, don't pass up checking out the fine planetary nebula NGC 3242, the Ghost of Jupiter, just two degrees below Mu Hydrae.

Galaxy fanatics rejoice when the spring night sky rolls into view. For now, the winter Milky Way and all its clutter has gotten "out of our way," and the stargazer can now plumb the depths of deep space and go after those island universes. In the "Wineglass" asterism of Virgo, midway between the star Vindemiatrix (Epsilon Virginis) and Leo's eastern most star, Denebola (Beta Leonis) lies the Realm of the Galaxies, a super cluster of 2,500 galaxies 60 MLY's away. Take your pick! You'll wear out your goto buttons pulling up such favorites as M84, M86, M87, etc. There's such a glut of galaxies in this region, it's amusing to think that before goto telescopes, and the lack of bright reference stars in the area, stargazers would galaxy-hop (rather than star-hop) through this distant field of faint fuzzies.

You might want to check out a smattering of galaxies away from the Virgo Group which, being only half the distance of the Virgo galaxies, are much more rewarding in the eyepiece. Try M104 in southern Virgo (30 MLY), NGC 4565 and M64 in Coma Berenices (30 MLY/ 20 MLY), M63, M51 and M94 in Canes Venatici (25 MLY/26MLY/16 MLY).

We have been looking south and overhead so far. Let's end by spinning around and facing north. Other than second magnitude Polaris, the North Star, this part of the sky is dominated by only one humongous constellation - Ursa Major, the Great Bear, the third largest constellation in terms of square degrees. This time of year, the bruin is upside down. Its seven brightest stars form the famous Big Dipper asterism. But can you identify the rest of the beast's body? It's fun to find his legs, two rear and one forward, all three ending with a pair of stars forming the

# The Backyard Astronomer

*Continued from page 3*

feet, once called by the Arabs the "Three leaps of the Gazelle." You can follow the stars of his forward leg back to the Bear's chest area and use a trickle of faint stars to form his neck and pointed snout. Sky Atlas 2000 shows 30 galaxies in and around the bowl of the Dipper and many more throughout the constellation. Without a doubt the most interesting two are M81 and M82 (13 MLY), which can usually be spied in reasonably dark skies with a finder or binoculars. Both fit in a low power one

- degree telescope field and display uniquely differing structure.

I hope you'll give some of these galaxies a look this spring before summer's offerings push them aside. Save a little time too for spring's many fine double stars. Check your stargazer's handbook for those. You do have one, don't you?

## EVAC Outreach Events

*by Gordon Rosner*

Unfortunately, a very short column this month. All outreach events were cancelled as of 15 March due to supporting the public health concerns. The Mt. Hopkins MMT Telescope tour scheduled for 24 April has also been cancelled. The MMT will be providing a full refund and when the club receives it, refund checks will be provided to those who had signed up."

But, we did have one event in March before the overall cancellation. That was Pomeroy Elementary School in Chandler on 5 March. This is a yearly event supporting their 'Reading Under the Stars' program and draws about 100 students and parents. Claude Haynes, Brooks Scofield, and I attended along with a new outreach volunteer, Josh Eyre. Welcome aboard, Josh. You did a great job on your first event with us. An enjoyable part of this event was talking to a retired fireman from Chicago who wanted to get involved with astrophotography. Being heavily involved with photography for many years and

having a lot of equipment, he wanted to take a step in a new direction with it. He stayed right by us the entire event asking questions and getting our advice. We all had a great time chatting with him and his excitement about being able to talk with us and learn about the scopes we had there. I think we found a new club member.

That was our only outreach event in March. Very sad for our outreach program and volunteers but I later found out that all the events that we cancelled were for schools who would eventually be closed for the time being.

Looking very forward to our outreach program getting back and to hearing all those "OH WOW's" we so love to hear.

Gordon Rosner  
EVAC Outreach Events Coordinator

**FIRST QUARTER MOON ON APRIL 1 AT 06:21**

**FULL MOON ON APRIL 7 AT 22:35**

**LAST QUARTER MOON ON APRIL 14 AT 18:56**

**NEW MOON ON APRIL 22 AT 22:26**

## 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 that may be of interest is AZ-Observering. To subscribe click <http://www.freelists.org/list/az-observing>.

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](#).

***Looking for that perfect weekend activity?***

***Why not resolve to getting involved?***

***Contact Claude Haynes to join the staff at GRCO***

***Email: [grco@evaconline.org](mailto:grco@evaconline.org)***

## EVAC Logoed Clothing

We now have clothing inventory of polo shirts in various sizes and colors and hats. If you ordered clothing, it will be available at the next meeting. If you didn't order, you can select an item at the next meeting and get immediate delivery. We have one 2XL navy-blue hoodie for sale. Please see Brooks or Tom at the next meeting.

Contact Tom Mozdzen at [vp@evaconline.org](mailto:vp@evaconline.org) if you have questions.

## Classified Ads

### **FOR SALE: Unitron 4-inch Equatorial Refractor Model 152**

Classic Unitron from 1965 complete with:

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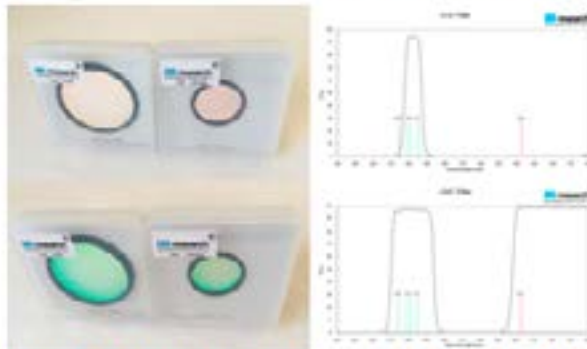
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## Classified Ads



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

**IC 405**

**Insight Observatory  
16" ATEO 1 Telescope**

[SkyPi Remote Observatory](#)





# Upcoming Meetings

All 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 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



## APRIL 2020

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

**April 17** - EVAC Monthly Meeting

**April 28** - EVAC Star Party

**April 18** - EVAC Star Party

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

## MAY 2020

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

**May 8** - Public Star Party

**May 16** - EVAC Star Party

**May 15** - EVAC Monthly Meeting

**May 23** - EVAC Star Party

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

## East Valley Astronomy Club – 2020 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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