



THE OBSERVER

East Valley Astronomy Club



[NGC 6946- Fireworks Galaxy](#)
[APOD January 1, 2011 Adam Block U. Arizona](#)

UPCOMING EVENTS:

- Public Party - January 13*
- EVAC Monthly Meeting - January 20*
- Local Star Party - January 21*
- Deep Sky Star Party - January 28*
- Check out all of the upcoming club events in the Calendars on page 9.*

INSIDE THIS ISSUE:

EVAC This Month

by Don Wrigley

Happy New Year, everyone! I don't have a long message this month, so I think it is a good time to remind everyone that, if you have not done so already, it is time to renew your membership. The club dues are what pays for all those little amenities that we all enjoy: refreshments at our club meetings, food for our cookout and holiday party, and the porta-potties and refreshments for our annual All Arizona Star Party. They

also provide the funds to pay an honorarium to our monthly speaker. Speaking of which, our speaker for January's meeting is Dr. Steven Desch from ASU, who will give a talk on the Physics of the Space Race. That takes in a lot of territory, and this talk alone might be worth our payment of dues!

Don Wrigley

<i>EVAC This Month</i>	1
<i>If It's Clear...</i>	2
<i>Moon Books I Use</i>	3
<i>Announcements</i>	4
<i>Classified Ads</i>	5
<i>Meeting Maps</i>	8
<i>Calendar</i>	9
<i>Membership Form</i>	10

If It's Clear...

by *Fulton Wright, Jr. Prescott Astronomy Club*

January 2017

Celestial events (from *Sky & Telescope* magazine, *Astronomy* magazine, and anywhere else I can find information) customized for Prescott, Arizona. All times are Mountain Standard Time.

Starting Sunday, January 1, for about a week, around 6:30 PM or 7:00 PM, you could look low in the south-west for comet 45P-Honda-Mrkos-Pajdusakova with binoculars. *Astronomy* magazine, January 2017, p. 42 has an article on the comet complete with a star chart of its path.

On Monday, January 2, the Moon occults both Neptune and Mars, but, unfortunately, each has set before the event happens (Neptune by only 9 minutes, Mars by 2 1/2 hours). Drat.

On Thursday, January 5, the Moon is at first quarter phase and sets at 1:10 AM (Friday).

On Monday, January 9, you can watch the Moon occult a magnitude 3.6 star. The star, Gamma Tauri, disappears on the dark limb at 2:14 AM and reappears on the bright limb at 2:33 AM. One of the programs I use lists it as a close double star, so you might see it disappear in 2 steps.

On Wednesday, January 11, at 5:16 PM, the full Moon rises, spoiling any chance of seeing faint fuzzies for the night.

On Thursday, January 12, about 6:30 PM, Venus and Neptune are less than 1/2 a degree apart. They are not the same diameter or brightness. Venus is magnitude -4.4 and 25 arc-seconds across. Neptune is magnitude +7.9 and 2 arc-seconds across. Notice that Venus is almost exactly half lit (what we would call first quarter

phase).

On Sunday, January 15, about 6:30 AM, you can see Mercury below and left of Saturn low in the south-east, and Jupiter near Spica much higher in the South.

On Tuesday, January 17, drat, we have another near miss. At 10:07 PM the Moon covers the magnitude 2.7 double star, Gamma Virginis. At 11:01 PM the Moon uncovers the double star. At 11:23 PM the double star rises. At 11:24 PM the Moon rises. Close but no cigar. At least you can see the objects near each other.

On Thursday, January 19, the Moon is at last quarter phase and rises at 1:13 AM (Friday).

On the night of Wednesday, January 25, after midnight (Thursday), you can see Ganymede transit the disk of Jupiter. It will be in front of the planet from 12:54 AM to 2:58 AM. It will transit the very northern part of Jupiter.

On Friday, January 27, it is new Moon and you have all night to hunt for faint fuzzies.

On Saturday, January 28, for those of you who like to watch events with Jupiter's moons, you have the best chance of the month. (More events will be observable in the coming months.) Here is the schedule:

11:41 PM Jupiter rises.

03:33 AM (Sunday) Io's shadow falls on Jupiter.

04:42 AM Io moves in front of Jupiter.

05:43 AM Io's shadow leaves Jupiter.

06:51 AM Io moves from in front of Jupiter.

07:30 AM the Sun rises.

On Tuesday, January 31, about 7:00 PM that the Moon, Mars, and Venus are all near each other in the sky.

Moon Books I Use

For those who enjoy observing the Moon, I offer the following list of books that have served me well over the past few years.

Stars and Planets (Ridpath and Tirion, 2007): A general astronomy pocket book that includes Moon charts which, for a pocket book, are the best I've seen.

Exploring the Moon Through Binoculars and Small Telescopes (Cherrington, 1984): A nice, somewhat old (1984) venerable Moon book. Amazon still shows it available. The late Randy Peterson (EVAC) introduced it to me. Good detail lunar info. The pictures are not of the best quality but good enough for you to find your way around the moon. Classic from the '70's and '80's.

The Modern Moon; A Personal View (Charles Wood, 2003): A moon book with different approach. Emphasizes lunar geology/morphology. This is not a lunar atlas, but the photographs are excellent. The author writes a monthly moon column in S&T magazine.

21st Century Atlas of the Moon (Charles Wood, Maurice Collins, West Virginia University Press, 2013, ISBN PB 978-1-938228-80-3): Unprecedented high resolution photographs of the lunar surface taken by the Lunar Reconnaissance Orbiter set this apart from previous lunar atlases. Excellent nine page introduction to our Moon's history and topography.

Observing the Moon; The Modern Astronomer's Guide (Gerald North, 2002): Comprehensive moon book, many photographs and drawings. Dense content. I only use it as a reference. For some reason, it's not my go to moon book.

New Atlas of the Moon (Legault, Bruner, 2006): Coffee table moon book illustrates full moon disk photographs for each day of the month, with transparent layover sheets for every other day identifying craters and other points of interest. Last half of book provides large photographs and text of main maria and close-ups of craters. Spiral bound.

Unfortunately, all illustrations are south up.

Hamlyn Atlas of the Moon (Antonin Rukl, 1990): This has become a classic. Unique in that 76 full page charts cover every foot of the moon's surface facing Earth and are meticulously hand drawn. Facing pages name crater, its etymology, diameter and depth. Last 14 pages have close-up photos of selected interesting craters, rilles and mountains.

Moon Maps: Sky and Telescope magazine offers two excellent moon maps. A small version based on a composite photograph so everything is in focus and laminated, \$6.95, either normal or reverse image. Their large laminated Field Map of the Moon is 2 feet square but folds into quarters. It's offered at \$12.95, either normal or reversed image. I highly recommend either one.

The Monthly Sky Guide, 9th edition by Ridpath and Tirion now includes an excellent 4 page Moon map (\$12.33, Amazon). Often found in book stores.

Web: <http://roc.sese.asu.edu/images> for incredible close-ups of the moon taken from the Lunar Reconnaissance Orbiter satellite. I used it to find the Ina Caldera, number 99 on the Lunar 100, a difficult if not impossible object to find in a telescope.

Consolidated Lunar Atlas <http://www.lpi.usra.edu/resources/cla/> for complete near side images of the moon taken by the 61" telescope at Catalina Observatory, Mount Lemmon, Arizona.

Final note: There are MANY moon books out there. Most are very good. The ones above just happened to find their way into my home somehow - like a stray cat.

I leave you with the following good news: Every time you observe the moon, you will discover something you never noticed before. That's the wonderful thing about observing the Moon.

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 on the Contact-Us tab. 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.

Looking for that perfect weekend activity?

Why not resolve to getting involved?

Contact Claude Haynes to join the staff at GRCO

Email: grco@evaonline.org

Classified Ads

FOR SALE:

TMB 115mm f/7 APO refractor. Comes complete with dovetail plate, 2" star diagonal, FeatherTouch dual focuser, and a Celestron red dot finder. A laser pointer with mounting bracket is also available. The optics are superb - this telescope ranks as one of the top performers I've owned in my close to 40 years in the hobby. Photographs are available on request.

Call Silvio Jaconelli at 480-262-2322, or email: silvioj12@gmail.com

Classified Ads

I have added a filter wheel with 36mm filters to my equipment, and no longer need my collection of 2" filters. I am offering them For Sale...

Some of the items have already sold, but these below are still available.

Item:	Model:	Cost New:	Asking:
<u>Baader UV/IR Cut L Filter</u>	2459210A	\$ 132	\$ 80
<u>Baader O III 8.5nm</u>	245836	\$ 227	\$ 140
<u>Lumicon Deep Sky UHC/LP</u>	LF <u>3015</u>	\$ 299	\$ 200
<u>Lumicon Night Sky H-Alpha</u>	LF <u>3090</u>	\$ 149	\$ 100
<u>Astromik 1.25" CLS</u>	CLS-1	\$ 70	\$ 50

David Douglass
david@az-douglass.net
Cell (602) 908-9092

FIRST QUARTER MOON ON JANUARY 5 AT 14:47

***FULL MOON ON JANUARY 12 AT 06:34**

LAST QUARTER MOON ON JANUARY 19 AT 17:13

NEW MOON ON JANUARY 27 AT 19:07

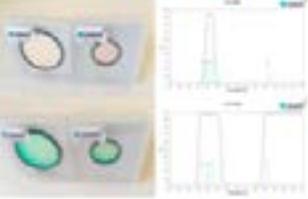


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Upcoming Meetings

January 20

February 17

March 17

April 21

May 19

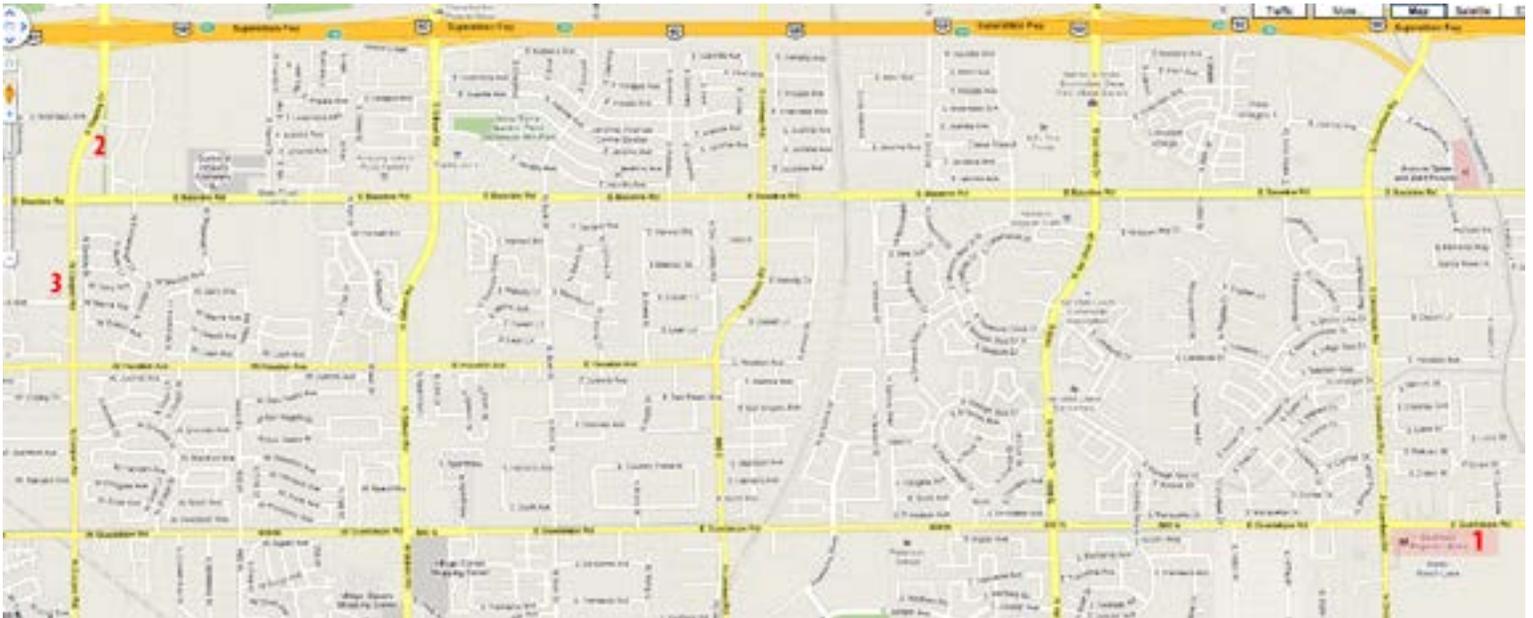
June 16

July 21

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!



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



JANUARY 2017

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
20	21	22	23	26	27	28
29	30	31				

Jan 13 - Public Star Party

Jan 19 - Charlotte Patterson Elementary

Jan 20 - EVAC Monthly Meeting

Jan 21 - Local Star Party

Jan 26 - Frye Elementary School

Jan 27 - City of Chandler Star Party

Jan 28 - Deep Sky Star Party

FEBRUARY 2017

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				

Feb 1 - Payne Jr High

Feb 2 - Carlson Elementary School

Feb 7 - Concordia Charter School

Feb 8 - C.O. Greenfield

Feb 9 - Navarette Elementary School

Feb 10 - Public Star Party

Feb 15 - Coronado Elementary School

Feb 16 - Kyrene De La Mariposa Elementary

Feb 17 - EVAC Monthly Meeting

Feb 18 - Local Star Party

Feb 21 - San Marcos Elementary

Feb 25 - Deep Sky Party

Feb 28 - Carson Jr High School

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

www.evaonline.org

East Valley Astronomy Club
PO Box 2202
Mesa, Az. 85214-2202

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