



THE OBSERVER

East Valley Astronomy Club



Venus, Jupiter and the Moon
June 19-20, 2015 - David Douglass

UPCOMING EVENTS:

Public Star Party - July 10

Local Star Party - July 11

EVAC Monthly Meeting- July 17

Deep Sky Party - July 18

Check out all of the upcoming club events in the Calendars on page 9

EVAC This Month by Claude Haynes

Pluto, dwarfed but undiminished, takes center stage as the New Horizons probe flies past on July 14. Many of us recall the grand journeys of Voyager 1 and 2 as they sped past the outer planets in the 1980's. The images beamed back were notable not for the confirmation of what we knew about the gas giant planets, but for the discovery of fascinating things that had previously only been hinted at. The great surprises of volcanos on Io, the cracked billiard ball surface of Europa, the death star appearance of Iapetus, and the tenuous rings of Uranus and Neptune were thrilling. Any

information gained by New Horizons will be groundbreaking because we know so little of Pluto. Sitting out over 30 times the distance of Earth to the Sun, we have only fuzzy pictures from Hubble. What wonders will appear as we see the icy surface of Pluto and its large moon Charon, and what unique surprises may come from its smaller moons Nix, Hydra and Kerberos? We will be tempted by the early pictures, but the probe is so far away it will take months for it to send back all the images.

Lowell Observatory is hosting "Pluto Palooza" from July 11 – 19

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Evac This Month

if you want to escape the Phoenix heat. The restoration of the Clark telescope is ongoing, but there are many special events planned. EVAC members are invited to a special presentation on the Pluto flyby at the Mesa Community College Planetarium on July 13 at 10 am. Seating is limited, and the folks from Friendship Village have priority for this special showing. Call Mary Douglas at 480-786-4646 between 10 am and 10 pm to make a reservation for this special presentation by Dr. Kevin Healy. There is also another showing at 7pm that evening. You don't need to call Mary for reservations to that one, but the seating is limited to 52 so you may

If It's Clear...

by Fulton Wright, Jr. Prescott Astronomy Club

July 2015

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.

This month (July) is your last chance for 6 years to catch Jupiter's moons going partly in front of each other. Here is the schedule:

-DATE--TIME----	JUP-ALTITUDE--	INFRONT---	BEHIND-
-2-----8:30-PM--	-20-deg-----	Ganymede--lo-	
-5-----9:18-PM---	-8-deg-----	lo-----	Ganymede-
-7-----8:49-PM--	-12-deg-----	lo-----	Europa-

On Wednesday, July 1, at 7:25 PM (22 minutes before sunset) the full Moon rises spoiling any chance of seeing faint fuzzies for the night.

On Wednesday, July 8, the Moon is at last quarter phase and rises at 12:29 AM (Thursday).

On Tuesday, July 14, around 5:00 AM, the New Horizons space probe will be passing by Pluto. Keep your fingers crossed that it avoids running into something and can radio back all the data it gathers. (No, you won't be able to observe this event with your back yard telescope.)

On Wednesday, July 15, it is new Moon, and you have all night to hunt for faint fuzzies.

On Saturday, July 18, after about 8:00 PM, you can catch the thin crescent Moon about 1 degree to the lower left of

want to check on getting a ticket early. The Planetarium is located at the MCC campus on Dobson Rd, just north of US 60 in building PS 15. Free parking is available in any space not marked EMPLOYEE. Our July meeting speaker is Paul Temple of the American Association of Variable Star Observers who will be speaking on the Central Stars of Planetary Nebula. Some of you may have had a chance to chat with him, since he attended the June meeting.

Keep looking up.... Claude

Venus. The pair is low in the west.

On Thursday, July 23, the Moon is at last quarter phase and sets at 11:59 PM.

On Saturday, July 25, about 9:00 PM, Saturn's moons are easy to identify. Titan (magnitude 9.2) is farthest celestial east of the planet. As you move toward the planet, you come to Rhea (magnitude 10.4) and Dione (magnitude 11.2). Tethys (magnitude 11.0) is located close to, and south of, the planet. The gibbous (Earth's) Moon is about 3 degrees away.

On Tuesday, July 28, around 10:00 PM, you can view the south-west (IAU, not celestial) part of the Moon at its best. Libration tips that part of the Moon toward us. The day before and after are also good.

On Thursday, July 30, at 6:56 PM (38 minutes before sunset), the full Moon rises spoiling any chance of seeing faint fuzzies for the night. This is the second full Moon of the month, which happens once in a blue moon.

North Rim Star Party



My wife Lora and I made our 16th trip to the North Rim for the annual Grand Canyon Star Party. It was a 396 mile drive from Apache Junction to the North Rim Lodge. We like to break up the long drive by over-nighting at the Cameron Trading Post a little over halfway to the North Rim. That makes the trip survivable for us. The portion of the trip from Cameron to just beyond the Navajo Bridge is very similar to the surface of an asteroid though the Vermilion Cliffs that parallel the north side of the road are quite striking. While taking a break from driving, we were fortunate to see three rare Condors under the Bridge (which crosses the Colorado River some 500 feet below).

For our four night stay I brought my new Celestron Evolution 8" along. Previously I had used my vintage 1974 C-8 so it was nice to be able to ignore polar alignment and have Goto capability. We had three clear nights and one partially cloudy night that still gave us plenty of "holes" to view through. This year we had only seven telescopes on hand. SAC's Steve Dodder, who manages the flow of scopes here, told me he had several cancellations of would-be attendees this year. As usual we had plenty of visitors descend upon us and were quite busy till around 10pm. My vote for the nicest looking telescope on the veranda was a Stellarvue 4" refractor on an Astro-Physics Mach One German equatorial head supported on a wood surveyor's type tripod imported from Germany. What a sweet setup. Also on deck were two large Dobsonians, a William Optics refractor, a 10" Orion Dobsonian and Steve's 8" LX200. Each day a SAC member set up his double stacked Lunt 80mm H-Alpha solar telescope for three hours at the nearby Bright

Angel Trailhead where he snagged many curious passerbys. In the past I had not been a fan of double stacking because I felt it dimmed the image of the sun to a unacceptable level (though it brought forth more surface detail on the sun). But I was knocked out by the increased solar detail in his image compared to what I see in my single stacked Lunt 80 – nor did I notice any dimming of his image. So I might have to revise my thoughts on double stacking.

Of course the night sky at this site is awesome – that's why we keep returning. In M57 I see more detail with my 8" than I do with my 11" back home. The seeing is also much better. At home I can't split the AB pair of Nu Scorpii (1.3") with my 8" but at the North Rim I routinely can. The AB pair of Xi Scorpii (0.7"), north of Nu, is hopeless at home but there I cleanly split them at 400x in the 8", a power I would never consider using at home. A fellow gazer suggested I try splitting Antares which has the reputation of being difficult due to its unequal components: AB 0.9, 5.5, separation 2.6". My 8" split them at 160x though 200x rendered a better view.

After the crowd left on my last night, I retired the 8" and used my tripod mounted 10x70 binoculars to do some wide field two-eyed viewing of the glorious Milky Way. After all, there's more to life than observing a tiny field with one eye. Grab those binos and take in the big picture; you won't be sorry. May I suggest a tour? Start at the heart of Scorpius: Antares and M4. Follow the creature's body down to Mu Scorpii 1 and 2, a fine optical pair of stars like cat's eyes in a dark alley. Drop down to NGC 6231 and Trumpler 24, the "False Comet." Swing up to the Scorpion's Stinger, another pair of "eyes." They guide you east a short way to M7, one of the most beautiful open star clusters in the night sky, tailor made for binoculars. Take a drink of your coffee. Now back to work. Nudge your binoculars northwest slightly to M6, another fine cluster. Zoom northeast to M8, the Lagoon Nebula. Slide east to M22, a globular cluster perhaps finer than M13 in Hercules. Slip northwest to Mu Sagittarii (above the top star in the Teapot). One degree north is the Great Star Cloud M24. Feast on this diamond field. Slightly northeast of M24 you'll stumble across the subdued cluster M28, then the bright emission nebula M17, the Swan Nebula. Let us end the tour here in the interest of brevity. The public was most gracious and appreciative of our willingness to share the night sky. You always meet such

interesting people from so many places, both domestic and abroad. There can be surprises too. My Celestron telescope caught the eye of a gentleman who told me

he was the real estate agent who found Celestron their Torrance, California property!

Special Invitation

Mesa Community College – Dobson Road

Pluto Flyby Planetarium Show

Presented by Dr. Kevin Healy

Monday, July 13 at 10 AM

Seating is limited – Call Mary Douglas

480-786-4646 between 10 AM and 10 PM

To reserve your spot

***FULL MOON ON JULY 1 AT 22:20**

LAST QUARTER MOON ON JULY 8 AT 16:24

NEW MOON ON JULY 15 AT 21:24

FIRST QUARTER MOON ON JULY 24 AT 00:04

***FULL MOON ON JULY 31 AT 06:43**



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Dobsonian Telescope For Sale

In April of 1992 I bought a dobsonian telescope with a 17.5" mirror from Coulter Optical. They are no longer in business. I paid \$1239.13 for the telescope. (Tax incl.) I have enjoyed using it but no longer have the means to transport it to a dark sky. The telescope needs to be used by someone who can get full use out of it so I am ready to bid farewell. I have the original operating guide. Some of the specifications are as follows:

- Mirror Diameter = 17.5
- Mirror Focal Length = 78.85
- Obscuration diameter = 4.25
- Focal ratio F/# = 4.5

I have just the original eyepiece that came with it. I never bought any extra eyepieces or filters. The overall condition of the telescope is good, but the mirror has never been cleaned. If you'd like to hear more about it, you may e-mail me. You can also leave a message at 480-483-3071. I will call back as soon as I get a chance.

Fred Marderness (reednote@yahoo.com)

Upcoming Meetings

July 17

August 21

September 16

October 16

November 20

December 18

January 15

February 19

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.

All are welcome to attend the pre-meeting dinner at 5:30 pm. We meet at Old Country Buffet, located at 1855 S. Stapley Drive in Mesa. The restaurant is in the plaza on the northeast corner of Stapley and Baseline Roads, just south of US60.

Visitors are always welcome!



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Old Country Buffet
1855 S. Stapley Drive
Mesa, Az. 85204

1

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



JULY 2015

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	1

July 10 - Public Star Party

July 18 - Deep Sky Party

July 11 - Local Star Party

July 20 - Explore the Night Sky

July 17 - EVAC Monthly Meeting

AUGUST 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
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					

Aug 8 - Local Star Party

Aug 17 - Explore the Night Sky

Aug 14 - Public Star Party

Aug 21 - EVAC Monthly Meeting

Aug 15 - Deep Sky Party

East Valley Astronomy Club -- 2013 Membership Form

Please complete this form and return it to the club Treasurer at the next meeting or mail it to EVAC, PO Box 2202, Mesa, Az, 85214-2202. Please include a check or money order made payable to EVAC for the appropriate amount.

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

Select one of the following:

☐ New Member

☐ Renewal

☐ Change of Address

New Member Dues (dues are prorated, select according to the month you are joining the club):

☐ **\$30.00 Individual** January through March

☐ **\$22.50 Individual** April through June

☐ **\$35.00 Family** January through March

☐ **\$26.25 Family** April through June

☐ **\$15.00 Individual** July through September

☐ **\$37.50 Individual** October through December

☐ **\$17.50 Family** July through September

☐ **\$43.75 Family** October through December

Includes dues for the following year

Renewal (current members only):

☐ **\$30.00 Individual**

☐ **\$35.00 Family**

Name Badges:

☐ **\$10.00** Each (including postage) Quantity: _____

Name to imprint: _____

Total amount enclosed:

Please make check or money order payable to EVAC

☐ Payment was remitted separately using PayPal

☐ Payment was remitted separately using my financial institution's online bill payment feature

Name:

Phone:

Address:

Email:

☐ Publish email address on website

City, State, Zip:

URL:

How would you like to receive your monthly newsletter? (choose one option):

☐ Electronic delivery (PDF) *Included with membership*

☐ US Mail **Please add \$10 to the total payment**

Areas of Interest (check all that apply):

☐ General Observing

☐ Cosmology

☐ Lunar Observing

☐ Telescope Making

☐ Planetary Observing

☐ Astrophotography

☐ Deep Sky Observing

☐ Other

Please describe your astronomy equipment:

Would you be interested in attending a beginner's workshop? ☐ Yes

☐ No

How did you discover East Valley Astronomy Club?

**PO Box 2202
Mesa, AZ 85214-2202
www.evaonline.org**

All members are required to have a liability release form (waiver) on file. Please complete one and forward to the Treasurer with your membership application or renewal.

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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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www.evaonline.org

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