

THE OBSERVER



Space Station Vista: Planet and Galaxy
 APOD January 18 2017, Image Credit: NASA, JSC, ESRS

From the Desk of the President

by Tom Mozdzen

Serving as club President marks my return to EVAC after having last served as Secretary in 2001. My first priority is to get reacquainted with the club and become familiar with all of its activities. One item that is readily evident is the positive impact EVAC has on the local community – a much bigger presence than in 2001 to say the least.

The Holiday Party was a hit and well attended by ~50 people. We had wonderful food, drink and conversation. Many thanks to Claude Haynes and his family for hosting. I'm happy I could chat with so many members.

The outreach provided by our visits to local schools and by visitors coming to us at GRCO is just amazing – I'm very impressed by the energy, enthusiasm, and generosity that our members give of themselves.

One boring, but necessary, task I need to do is to read and understand the bylaws carefully to make sure our club, myself in particular, follows them. This also provides a good opportunity to identify ambiguously written items so that we can update them to be more specific and to reflect the original intent.

We have a great set of incoming officers and board members. I'd like to thank Don Wrigley, Claude Haynes

UPCOMING EVENTS:

- Local Star Party - January 6*
 - Public Star Party - January 12*
 - Deep Star Party - January 13*
 - EVAC Monthly Meeting - January 19*
- Check out all of the upcoming club events in the Calendars on page 11.*

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From the Desk of the President

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and Brooks Scofield for making the transition easier for our incoming President (me), Vice President (Rob Baldwin), and Treasurer (Lana Young). Also much thanks goes to Marty Pieczonka for assistance on getting us up to speed on web related matters. I'd also like to welcome our incoming Secretary Ken Rowe, and incoming Board of directors Henry DeJonge, Claude Haynes, Gordon Rosner, Forrest (Woody) Sims, and Brooks Scofield.

Our outreach activities continue to be led by Claude Haynes with GRCO and Lynn Young with the local schools, who anticipate 2018 to be a very busy year. We need more volunteers to keep up with the volume of requests – please consider volunteering when the call for help comes.

We already have speakers lined up for January through

The Backyard Astronomer by Bill Dellinges (January 2018)

New Year, New Objects

New year? Why not try to observe a few new objects that you may have either not seen before or not visited in a while? Let's begin with **NGC 1807/17**, two star clusters in Taurus. They are located midway and just below a line from Aldebaran to Zeta Tauri. Though not as grand as the famous Double Cluster in Perseus, it's nevertheless interesting to see two star clusters in the same field of a telescope. Both fit in the 90x, 0.9 degree field of an 11" SCT. Sky Atlas 2000 Companion states NGC 1807 is probably just an asterism of 20 stars and NGC 1817 an open cluster of 60 stars 5,700 light years away.

Omicron 2 Eridani has the unique distinction of being the easiest white dwarf star for a stargazer to find. It helps that this triple star system is only 16 light years away. The primary is a magnitude 4.6, spectral class K1 V star. Eighty-three arc seconds to its right (in a reversed field) you'll spy a faint double star, one above the other, separated by 9.2". The bottom brighter magnitude 9.5 star is the white dwarf. The fainter magnitude 11.2 star above it is a red dwarf. SAO 131063.

NGC 2169, aka the "37 Cluster" is fairly well known but often overlooked because M-42, the Orion Nebula, is not far away. NGC 2169 is a modest star cluster of about 30

March and Rob is working on filling out the rest of the year with interesting and informative speakers. I'm confident we will have an impressive set of speakers for 2018 that club members will enjoy.

Finally, please remember to send in your dues, if you haven't already, either by PayPal online or in person at the January meeting.

Many thanks to all who have supported EVAC throughout the years, especially to our non-board members who volunteer to be in charge of various club functions and to those who volunteer in other capacities. We look forward to continued support from all of our members in 2018.

Tom Mozdzen

stars located midway up Orion's raised right arm. The brighter stars form what roughly appears to be the figure 37, though it will look backwards if your telescope renders a reversed field. Most gazers probably wouldn't give it a second thought if it weren't for its novelty factor. Note the top star in the "3" is Struve 848, a double star (AB Mag 8.3, 9.0, Sep 2.5" Pa. 108 degrees) SAO 95282.

NGC 2301 is Open cluster in Monoceros. At 90x in an 11" SCT, a string of stars runs across the 0.9 degree field from upper right to lower left in its reversed field. The stars pile up near the center of the string, and to their lower right there is a separate "V" pattern of stars lying slightly on its side. The cluster is about two degrees southeast of 18 Monocerotis.

17 Canis Majoris is an interesting looking quadruple star found two degrees east of M-41 in the Great Dog. It's one of three stars forming a triangle. The dimmer star of the trio below Pi and 15 Canis Majoris is 17 Canis Majoris. Their magnitudes range from 5.8 to 9.5 with separations from the primary A of 43.5", 49.4", and 129.9" and are easily split in an 11" telescope (a 70mm refractor pulled in the A, B, and C components but struggled with the mag 9.5 D star). The primary's little retinue all reside south of it, forming a neat little wanabe cluster 245 light years distant. SAO 172569.

The Backyard Astronomer

Continued from page 2

NGC 2264 is an outstanding star cluster in northern Monoceros appropriately called, for this time of the year, the Christmas Tree Cluster. About 40 stars form what can be imagined as a Christmas tree, albeit upside down. Furthermore, the stars' various magnitudes and colors give the impression of ornaments! This is a large cluster that fills the 0.9 degree field of an SCT at 90x. The Christmas Tree appearance is much more noticeable in a 70mm refractor at 26x and field of 2.3 degrees. The brightest star in

the cluster is 15 Monocerotis, acting as the tree's base. It's also a triple star – AB Mag 4.7, 7.5, Sep 2.8", Pa 213 degrees. AC Mag 4.7, 9.8, Sep 16.6", Pa 13 degrees. SAO 114258. The AB pair can be challenging but was seen sporadically in poor seeing recently with an 11" SCT at 212x.

It takes hardy souls to brave winter observing. If it's any consolation, think about those stargazers north of us who have it much worse.

Let's Party for January

Astronomical objects for public (and private) star parties, arranged by type.
by Fulton Wright, Jr. Prescott Astronomy Club

Flashy, deep-sky objects, visible in the middle of the month, at the end of astronomical twilight, 7:10 PM this month, (when it really gets dark). This list customized for Prescott, Arizona, should work well anywhere in the state, and be usable anywhere in the old 48 states.

Name: M 45
alt name: Pleiades
magnitude: 1.5
size: 120 arc-minutes
R.A.: 3hr 48min, Dec.: +24deg 10'

Double Stars (2 or 3 stars, close together)

Name: Gamma Andromedae
alt name: Almach
magnitudes: 2.1 & 5.0
separation: 10 arc-seconds
R.A.: 2hr 5min, Dec.: +42deg 45'

Globular Clusters (about 200,000 dim stars)

Name: M2
alt name: NGC7089
magnitude: 6.5
size: 16 arc-minutes
R.A.: 21hrs 34min, Dec.: -0deg 45'

Name: Gamma Arietis
alt name: Mesarthim
magnitudes: 3.9 & 4.6
separation: 7 arc-seconds
R.A.: 1hr 55min, Dec.: +19deg 23'

Name: M15
alt name: NGC7078
magnitude: 6.2
size: 18 arc-minutes
R.A.: 21hrs 31min, Dec.: +12deg 15'

Open Clusters (about 50 bright stars)

Name: M37
alt name: NGC2099
magnitude: 5.6
size: 14arc-minutes
R.A.: 5hr 53min, Dec.: +32deg 33'

Name: M79
alt name: NGC1904
magnitude: 7.7
size: 10 arc-minutes
R.A.: 5hrs 25min Dec.: +24deg 31'

Name: Double Cluster
alt name: NGC869 and 884
magnitude: 5.3 and 6.1
size: 18 and 18 arc-minutes, centers 28 arc-minutes apart
R.A.: 2hr 22min, Dec.: +57deg 12'

Galaxies (about 200,000,000 very dim and distant stars)

Name: M31 (M32 & M110)
alt name: Andromeda galaxy
magnitude: 3.4 (7.9 & 8.0)
size: 180 x 70 arc-minutes (8 x 5 & 16 x 10)
R.A.: 0hr 44min, Dec.: +41deg 22'

Let's Party for January

Continued from page 3

Name: M77
alt name: Cetus A
magnitude: 9.0
size: 6 x 6 arc-minutes
R.A.: 2hr 44min, Dec.: +0deg 4'

Diffuse Nebulae (gas and dust lit by a nearby star)

Name: M42
alt name: Orion Nebula
magnitude:
size: 85 x 60 arc-minutes
R.A.: 5hrs 36min, Dec.: -5deg 26'

Name: NGC2239
alt name: Rosette Nebula
magnitude: 5.5
size: 80 x 60 arc-minutes
R.A.: 6hrs 31min, Dec.: +5deg 2'

Planetary Nebulae (gas shell from exploding star, looks like Uranus in telescope)

Name: NGC1535
alt name: Cleopatra's Eye
magnitude: 9.4
size: 0.8 arc-minutes
R.A.: 4hr 15mm Dec.: -12deg 42'

FULL MOON ON JANUARY 1 AT 21:24

LAST QUARTER MOON ON JANUARY 8 AT 17:25

NEW MOON ON JANUARY 16 AT 21:17

FIRST QUARTER MOON ON JANUARY 24 AT 17:20

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

I have a Takahashi Q-106 System for sale. It includes all the extras:

- . F3.6 reducer, 2” visual back, extender
- . Canon DSLR hookups
- . 72mm Deep Sky filter
- . Custom rings with Losmandy plates
- . Finder
- . Large Pelican case

Much more. It is the best flat field astrograph and visual refractor combo available.

Please research the cost and make an offer. All considered.

[Takahashi Q-106 Pictures](#)

I'm very motivated to sell.

Thanks, Dan Gordon

az.dan.gordon@gmail.com



5757 N. Oracle Road Tucson, AZ 85704 520-292-5010
www.starizona.com

Apache-Sitgreaves Observatory
Overgaard, Arizona
Largest Public Observing Telescope in Arizona
Apache-Sitgreaves.org

10" Orion Dob. Hardly used, excellent condition. Complete with 2" Crayford focuser and extra large eyepiece holder.

Cost new, \$670. Asking \$375.

Derek Youngson

No eyepiece or finder. Tube comes in original packing box. Too many scopes forces sale!

derek.youngson@gmail.com

Canon Camera for Sale:

The camera was modified by Hap Griffin about 5 years ago and has ~8,150 shutter counts. It was purchased late 2011. Overall it's in good condition and has the latest Canon Firmware installed. A Custom White Balance and been set. Some example images can be seen at the URL below. If needed I can supply 100% cropped 'Dark Frames' images so you can examine the camera background noise.

- . Canon TC-80N3 Intervalometer \$135.49
- . Canon CA-PS700 125VAC Power Adapter \$49.95
- . Orion 12VDC Power Adapter \$119.00
- . Canon RS-60E3 Remote Switch \$21.00
- . Extra Canon LP-E8 Battery – 2ea total \$47.95
- SanDisk Extreme Plus 32Mbytes \$20.95
- Journey34 DSLR Shoulder Bag \$49.95
- . Canon LP-E8 Charger
- Canon T3i - S/N 072023005219

For current 2017 EVAC members I will include a 21 day warranty period.

Cost of included items is \$440.75. Asking \$350

[Canon Camera Pictures](#)

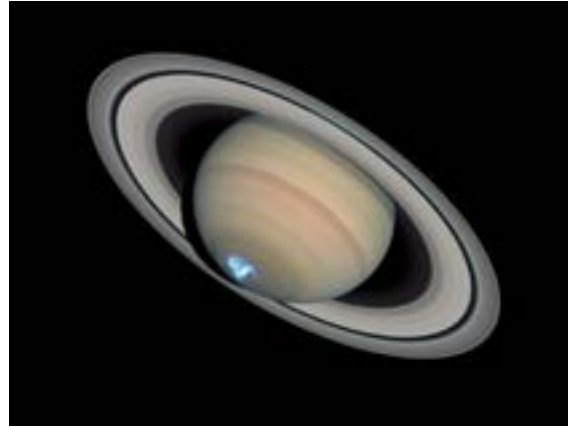
E-mail me for additional information – jimwaters@cox.net

Included items:

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& lunar
imaging**



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detection**

Meteor capture

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480-835-1767 800-574-2589



For Sale:

10" Meade LX-200GPS. This is the fast f6.3 - not the standard f10.0. It has Meade's UHTC Ultra High Transmission Coating, SMT upgrade and Peterson EZ-Clutch, EZ Focus, and Buck's Gears. The tripod has the "Springy Thing" springs on the mounting screw. An OPT 'scope saver' (larger than the scopetronix version) and both the standard length screw as well as the longer version for use with the scope saver. Includes Meade's 2" electric focuser with 1-1/4" and T adapters. A 1-1/4" diagonal and 40mm Plossl eyepiece are included as is a 60mm finder scope.

Additional included options are a JMI Hardside Carrying Case for the scope and a Scopetronix soft side case for the tripod. A 115 VAC power, Kendrick Kwik-focus, 5 colored visual filters and both narrow band and wide band pollution filters. A Meade Pickback adapter is also included.

If the observer get more involved in astro-photography a Meade Superwedge with Scopestuff Rosette knobs and stiffening rod is provided along with a Rigel nFocus focus controller.

If the observer gets even more seriously involved in astrophotography, two Losmandy "D" series dovetail bars are provided.

Using this scope and an SBIG ST-8300 camera over a two year period I was able to photograph all NGC and IC objects above -38 deg from my backyard in Chandler.

Asking price is \$1500

If you have any questions please contact:
Bruce Barron - bbarron1@cox.net

For Sale

Telescope: A Vixen mount with star book and through the mount align scope. The scope is a five inch refractor. Carrying case shown. Sale price: \$2700. Call 480-882-3485 Frank Pino



For Sale:

A Vixen mount with star book and through the mount align scope. The scope is a five inch refractor. With wooden carrying case.

Sale price \$1,700.00

Frank Pino f.pino@mchsi.com 480-882-3485

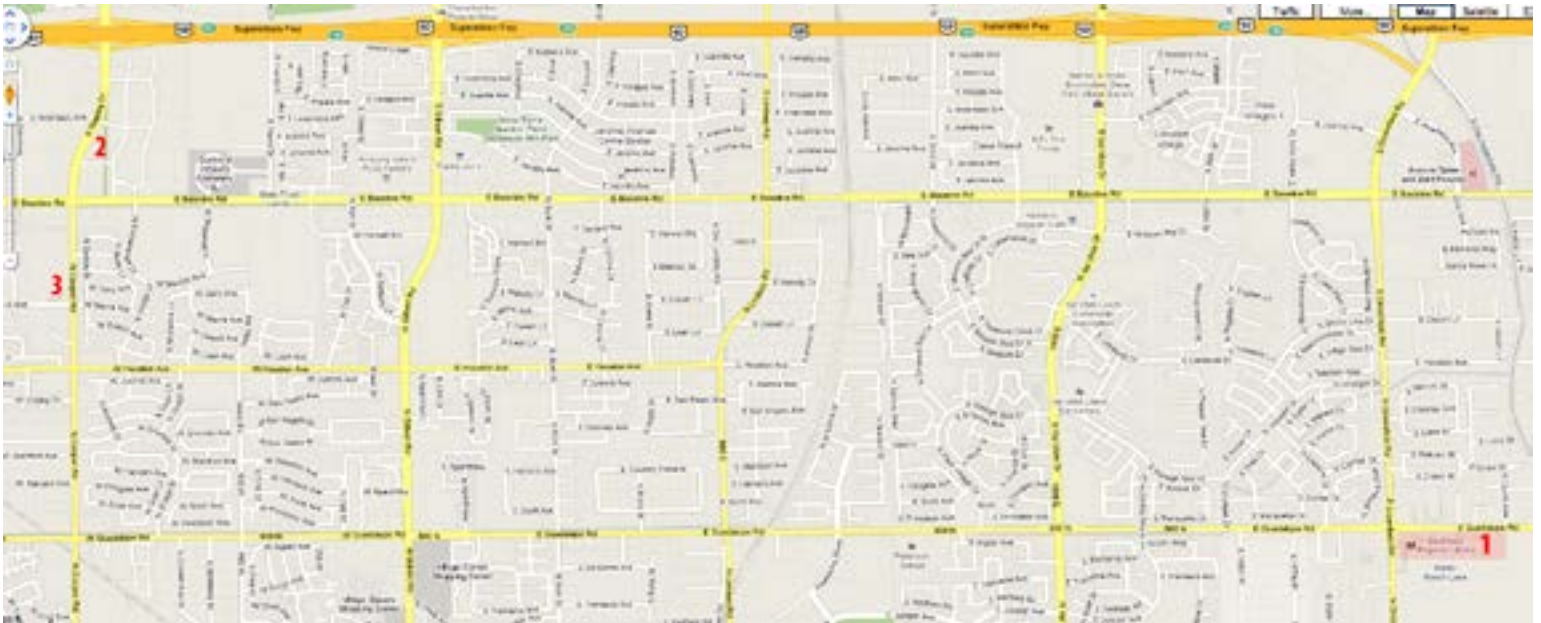
Upcoming Meetings

January 19
February 16
March 16
April 20
May 18
June 15
July 20
August 17

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



DECEMBER 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	29	30	31			

January 6 - Local Star Party

January 11 - Zaharis Elementary School

January 12 - Public Star Party

January 13 - Deep Sky Party

January 18 - Fulton Elementary

January 19 - EVAC Monthly Meeting

January 25 - Charlotte Patterson Elementary

January 31 - Kyrene Middle School

FEBRUARY 2018

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
26	27	28				

February 1 - Carlson Elementary School

February 7 - C. O. Greenfield

February 9 - Public Star Party

February 10 - Local Sky Party

February 12 - CGCC Star Party

February 13 - Keller Elementary School

February 15 - Kyrene de la Mariposa School

February 16 - EVAC Monthly Meeting

February 17 - Deep Sky Party

February 20 - Carson Junior High School

February 21 - San Tan Junior High School

February 23 - City of Chandler

February 27 - San Marcos Elementary School

East Valley Astronomy Club -- 2018 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):

- | | |
|---|---|
| <input type="checkbox"/> \$30.00 Individual January through March | <input type="checkbox"/> \$22.50 Individual April through June |
| <input type="checkbox"/> \$35.00 Family January through March | <input type="checkbox"/> \$26.25 Family April through June |
| <input type="checkbox"/> \$15.00 Individual July through September | <input type="checkbox"/> \$37.50 Individual October through December |
| <input type="checkbox"/> \$17.50 Family July through September | <input type="checkbox"/> \$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:

City, State, Zip:

Publish email address on website
URL:

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.

- | | |
|--|---|
| <input type="checkbox"/> General Observing | <input type="checkbox"/> Cosmology |
| <input type="checkbox"/> Lunar Observing | <input type="checkbox"/> Telescope Making |
| <input type="checkbox"/> Planetary Observing | <input type="checkbox"/> Astrophotography |
| <input type="checkbox"/> Deep Sky Observing | <input type="checkbox"/> Other |

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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www.evaonline.org

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

President: Tom Mozdzen

Vice President: Rob Baldwin

Secretary: Ken Rowe

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Property Director: David Hatch

Refreshments: Jan Barstad

Observing Program Coordinator: Wayne Thomas

AL Representative: David Douglass

Membership: Les Wagner

Newsletter Editor: Marty Pieczonka

Webmaster: Marty Pieczonka

SkyWatch Coordinator: Claude Haynes

Observatory Manager: Claude Haynes