### NOVEMBER 2011



VOLUME 25 ISSUE 11

# THE OBSERVER East Valley Astronomy Club

### From the Desk of the President by Steven Aggas

Once again we come to a time of the year for giving thanks. I hope things are well for you and yours this holiday season, and, wish you all clear skies.

With last month's nominations filling the roster for next year's officers and board members, we'll have a complete list to vote in at the next meeting! It's good to see the willingness to move the club forward.

An item for your calendars is the Holiday Party in December. It will be held at the library meeting room on December 16<sup>th</sup> at the usual time, 7:30 pm. EVAC will provide the meat, and drinks, utensils and plates. Please bring your favorite pasta salad, bread and butter, or, dessert.

Please join us November 18th to hear Dr. Buell Jannuzi of Kitt Peak give a

presentation titled Galaxy Evolution and the Next Generation of Major Surveys! Join us to hear about the future of astronomy.



### **UPCOMING EVENTS:**

Public Star Party - November 11 **General Meeting - November 18** Local Star Party - November 19 Deep Sky Observing Night - November 26

Check out all of the upcoming club events in the Calendars on page 8

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### The Backyard Astronomer My Lunt H $\alpha$ Scope by Bill Dellinges

bout 30 years ago, I first viewed the sun through a hydrogen alpha (H $\alpha$ ) filtered telescope at a local college observatory. I thought it was just about the most incredible thing I'd ever seen in a telescope.

At the time, these special sun filters, which allowed seeing prominences on the sun's limb and surface detail unavailable through white light filters, were made by only one or two vendors and extremely expensive. Their price was beyond what the average amateur astronomer could afford.

A few years ago I had another opportunity to see the sun in H $\alpha$  at Starizona, a Tucson telescope shop. They had a 6" refractor with a Day Star  $H\alpha$  filter set up outside their store.

I took a peek. Once again my mind was blown. I had to have one of these filters! It went to the top of my wish list.

Finally, around 1998, a Tucson company named Coronado appeared, offering affordable H $\alpha$  telescopes. They produced both dedicated  $H\alpha$  scopes and filters which could be added to the front and rear of regular refractors. They were still a tad pricy for me, so I just kept my eye on the situation until 2004 when the company introduced their PST (personal solar telescope), an entry level H $\alpha$  scope priced at only \$500 (<1.0Å band pass). This shook the astronomical community. They sold like hotcakes. I bought one. It was wonderful

### The Backyard Astronomer

*Continued from page 1* to finally own a telescope that revealed prominences, filaments (prominences seen head on) and plage (bright areas of hot gas near sunspots). Sunspots could be seen by *tuning* a ring around the tube at the expense of other solar detail. It was a pretty good solar telescope. I only had one issue with the scope. Its 5mm blocking filter in the diagonal didn't leave much room for its 3.6mm solar image. If not on a driven mount, the sun left the field's sweet spot much too guickly to suit me.

By 2007, Lunt Solar Systems, a new firm based in Tucson, began selling H $\alpha$  telescopes. The company was started by Allen Lunt, son of David Lunt (1942-2005) who had formed Coronado and sold it to Meade in 2004. I became interested in their instruments and arranged a tour of the plant and telescope demonstration. They were very gracious in

only a mount. For that, I chose a Vixen Porta II alt-az mount which has worked out well. It handles the scope fine, is light but sturdy, has smooth slow motion controls and doesn't require an electrical source. At the low powers



typically used (25x-40x), the solar image takes 2-3 minutes to traverse the field. A driven mount would be nice, but my system seems to work fine and is extremely portable. Bandpass is rated as less than 0.7 angstroms (<0.7Å). The instrument's focal length is 560mm producing a solar image

allowing me to see the behind the scenes look at assembly and a view through the 80mm H $\alpha$  model I had my eye on.

I still don't think I totally grasp the concept of an etalon though! But it works as advertised and I bought the 80mm after deciding I liked what I saw in it. I went for the model LS80THA/PT/B1200FT (\$3,417) which translates into: Lunt Solar/80mm TelescopeHydrogenAlpha/ Pressure Tuner/ 12mm Blocking Filter, FeatherTouch Focuser. Whew, that's a



mouthful! The basic telescope is an F7 80mm aperture refractor. It comes with a dual-speed 2" FeatherTouch focuser, Televue Sol Searcher finder, 6" Vixen dovetail, 21.5mm -7.2mm zoom eyepiece (a very handy device!), and foam lined case. Build quality is first class.

Thus the scope was a complete package ready to go lacking



blocking filter is 2.4 times larger than that allowing the generous travel time across the field mentioned above. Lunt's blocking filters are offered in 6mm, 12mm, and 18mm sizes. The latter is recommended for photographic purposes. The Lunt 80 provides a bright crisp solar image with impressive detail. I have seen prominences on the limb every time I've used the telescope, sometimes very large ones. There are usually several dark filaments visible

at any given time. Areas of unusually bright plage can often be seen around sunspots and are guite striking. The sun's disk shows a mild mottling texture somewhat less impressive than photographs in magazines. I understand the contrast of this texture can be increased or darkened by *double-stacking* the telescope: adding a second filter to the instrument resulting in a <0.5 band pass. This adds cost, generally darkens the image, and can reduce the visibility of prominences. For now, I'll stick with what I have.

I'm impressed with the scope's performance and always look forward to my next observing session with it. My fellow gazer friends have all been impressed with the views of the Lunt 80.

Any criticisms? Only one. Lunt has both tilting and pressure tuning (PT) mechanism models to adjust the etalon to obtain the desired 656.28 nanometer wavelength. Though my PT works fine, and the company believes it is superior to a tilt wheel adjustment, I find the large PT cylinder sticking out of the tube assembly detracts from the overall beauty of the telescope. It would be nice if it could be made smaller.

Other than my PT gripe, they've produced one heck of a H $\alpha$ telescope.

### This Month in Astronomical History

Sputnik 2 (Спутник-2, Satellite 2), or Prosteyshiy Sputnik 2 (Простейший Спутник 2 Elementary Satellite 2), was the second spacecraft launched into Earth orbit, on November 3, 1957, and the first to carry a living animal, a dog named Laika. Sputnik 2 was a 4-meter (13 foot) high cone-shaped capsule with a base diameter of 2 meters (6.6 feet). It contained several compartments for radio transmitters, a telemetry system, a programming unit, a regeneration and temperature control system for the cabin, and scientific instruments. A separate sealed cabin contained the dog Laika.

Engineering and biological data were transmitted using the Tral D telemetry system, which would transmit data to Earth for a 15 minute period during each orbit. Two photometers were on board for measuring solar radiation (ultraviolet and x-ray emissions) and cosmic rays. Sputnik 2 did not contain a television camera; TV images of dogs on Korabl-Sputnik 2 are commonly misidentified as Laika.

The first living creature (larger than a microbe) to enter orbit was a female part-Samoyed terrier originally named Kudry-

avka (Little Curly) but later renamed Laika (Barker). Laika was selected from ten candidates at the Air Force Institute of Aviation Medicine, because of her even temperament. She weighed about 6 kg (13 lb). The pressurized cabin on Sputnik 2 allowed enough room for her to lie down or stand and was padded. An air regeneration system provided oxygen; food and water were dispensed in a gelatinized form. Laika was fitted with a harness, a bag to collect waste, and electrodes to monitor vital signs. Early telemetry indicated Laika was agitated but eating her food.

In October 2002 it was revealed by Russian sources that Laika had already died after a few hours from overheating and stress, not suffocation, as is commonly believed. If neither had taken place, Russian Mission Control had planned to euthanize Laika with poisoned food, as she would have burned up in the atmosphere during reentry. The mission provided scientists with the first data on the behavior of a living organism in the space environment.







The image is a model of Sputnik 2 on display at the Polytechnical Museum in Russia. Image courtesy of Alexander Chernov and the Virtual Space Museum

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### NASA Hosting Human Space Exploration Workshop

NASA will host a three-day Human Space Exploration Community Workshop in San Diego starting on Monday, Nov. 14. The agency will introduce the International Space Exploration Coordination Group's Global Exploration Roadmap during the event.

The workshop will frame the Global Exploration Roadmap, with overviews of NASA's plans for human spaceflight, including exploration missions to an asteroid and Mars. The goal is to review the work done developing international exploration scenarios while seeking community input on the long-term scenarios represented in the roadmap.

NASA is seeking industry and academia feedback to shape strategy, assist with investment priorities and refine international exploration scenarios for human exploration and operations through the 2020's. The agency has outlined an ambitious program moving forward that relies on private industry to assume transportation of cargo and crew to the International Space Station, while NASA focuses on deep space exploration.

The workshop is part of a continuing agency effort to engage the broader space community in appropriate forums. More events will follow as part of a series of "theme focused" opportunities for human spaceflight exploration planning and engagement.



To register for the workshop, visit: http://ger.nasainvitation.com

Due to space limitations, reporters are invited to watch the workshop via webcast and submit questions via email. For details, visit:

http://www.nasa.gov/exploration/about/isecg/ger-workshop. html

For more information about NASA's human exploration plans, visit: http://www.nasa.gov/exploration

Early morning view on November 9, 1967 of Pad A, Launch Complex 39, Kennedy Space Center, showing Apollo 4 Saturn V (Spacecraft 017/Saturn 501) prior to launch later that day. This was the first launch of the Saturn V.

The official NASA description of the photograph is incorrect, and the image is a composite with the full moon in the background added later. On the morning of November 9, 1967 the moon was at first quarter. The flame trench at Pad 39A was oriented along the north-south axis and the rocket was south of the Launch Umbilical Tower. This means this photograph was taken facing southwest, so for the lighting to be correct it had to have been taken at sunset, not sunrise, unless the original image has been "flipped" horizontally for the sake of artistic composition. Additionally, by pre-dawn on November 9th, the rocket was fully fueled for a 7:00 AM EST launch, and would at that point have been wreathed in venting cryogenic gases, whereas none are visible in this photo.

### November Guest Speaker: Dr. Buell T. Jannuzi

We are pleased to welcome Dr. Buell Jannuzi as our guest speaker for November.

Buell T. Jannuzi is an astronomer at Kitt Peak National Observatory. He sreceived his undergraduate degree (A.B. astronomy and astrophysics) in 1984 from Harvard College, and earned his Ph.D. (astronomy) in 1990 from the University of Arizona.

Since joining the scientific staff of the National Optical Astronomy Observatory in 1995, he has studied the formation and evolution of structure in the universe using the telescopes of Kitt Peak National Observatory and other ground-based observatories. He has been active in the effort to protect dark skies as a member of the Pima County and City of Tucson Outdoor Lighting Code Committee and the American Astronomical Society's Committee on Light Pollution, Radio Interference, and Space Debris.

Dr. Jannuzi's areas of interest include observational cosmology, quasar absorption line systems, active galaxies, and instrumentation for surveys.

Dr. Jannuzi's current research activities are mainly in two areas: 1) studies of the properties of the inter-galactic medium and the gaseous content of the Universe as probes of the formation and evolution of structure in the Universe, and 2) studies of galaxies and large scale structure at redshifts between one and four as traced by the distribution of individual, groups, and clusters of galaxies. I also continue to be involved in studies of various classes of active galaxies. Lyman-alpha absorbers are observable from redshifts of zero to over 4, spanning most of the age of the Universe. Understanding how they relate to large scale structures at low redshift will facilitate using studies of absorbers to understand the



formation and evolution of structure in the Universe. As a member of the Quasar Absorption Line Key Project Team, a group of researchers that used the Faint Object Spectrograph of the Hubble Space Telescope to obtain ultraviolet spectra of guasars during the first four cycles of HST operations, he led the construction of a catalog of absorption line systems. The large and homogeneous catalogue of low redshift absorbers that resulted from this work (Jannuzi et al. 1998, ApJS, 118, p1) is being used for a wide variety of studies. Results include evidence for clustering of some low redshift Lyman-alpha absorbers near metal line systems (Jannuzi 1998, in Proceedings of the 13th IAP Astrophysics Colloquium: Structure and Evolution of the Intergalactic Medium From QSO Absorption Line Systems, edited by P. Petitjean and S. Charlot (Editions Frontier: Paris) p. 93) and for a change in the nature of the evolution of the number of these systems as a function of redshift from near the beginning of the Universe (z=4.5) to the present (z=0) (Weymann et al. 1998, ApJ, 506, p.1).

Dr. Jannuzi will give a talk on *Galaxy Evolution and the Next Generation of Major Surveys*.



First Quarter Moon on November 2 at 09:38
 Full Moon on November 10 at 13:17
 Last Quarter Moon on November 18 at 08:09
 New Moon on November 24 at 23:10

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**URES IN ASTRONOMY & NATURE** 

### **Upcoming Meetings**

November 18 December 16 January 20 February 17 March 16 April 20 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.

Likewise, all are invited to meet for coffee and more astro talk after the meeting at Denny's on Cooper (Stapley), between Baseline and Guadalupe Roads.

### Visitors are always welcome!



		Nov	EMBER 2	011		
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	<b>26</b>
27	28	29	30			

November 2 - School Solar Event at GRCO

**November 4** - Charlotte Patterson Elementary

School Star Party

November 10 - School Solar Event at GRCO

November 10 - Webster Elementary School Star

Party

November 11 - Public Star Party & SkyWatch at

**Riparian Preserve** 

November 13 - Citizen Scientist Meeting

November 17 - School Solar Event at GRCO

**November 17** - Paragon Science Academy Star Party

November 18 - General Meeting at SE Library

November 19 - Local Star Party at Boyce

Thompson Arboretum

November 21 - School Solar Event at GRCO

November 26 - Deep Sky Observing Night. Head

out to your favorite dark sky site and observe!

### DECEMBER 2011

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	<b>16</b>	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

December 1 - Akimel A-al Middle School Star

### Party

December 2 - School Solar Event at GRCO

December 2 - Kino Junior High School Star Party

**December 7** - Edu-Prize Elementary School Star

Party

December 8 - Brimhall Junior High School Star

December 9 - Public Star Party & SkyWatch

December 11 - Citizen Scientist Meeting

**December 16** - General Meeting at SE Library

**December 17** - Local Star Party at Boyce

Thompson

December 24 - Deep Sky Observing Night

### East Valley Astronomy Club - 2011 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 accord         \$30.00 Individual January through March	ing to the month you are joining the club):    \$22.50 Individual April through June
<b>\$35.00 Family</b> January through March	Sec. 25 Family April through June
<ul> <li>\$15.00 Individual July through September</li> <li>\$17.50 Family July through September</li> <li>Renewal (current members only):</li> <li>\$30.00 Individual</li> <li>\$35.00 Family</li> </ul>	<ul> <li>\$37.50 Individual October through December</li> <li>\$43.75 Family October through December Includes dues for the following year</li> </ul>
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 □ Pa on	yment was remitted separately using my financial institution's line bill payment feature
Name:	Phone:
Address:	Email:
City, State, Zip:	Publish email address on website     URL:
How would you like to receive your monthly newsletter Electronic delivery (PDF) Included with membershi	er? (choose one option): p US Mail Please add \$10 to the total payment
Areas of Interest (check all that apply):         □ General Observing       □ Cosmology	Please describe your astronomy equipment:
Lunar Observing     Telescope Making     Planetary Observing     Astrophotography	
Deep Sky Observing Other	
Would you be interested in attending a beginner's workshop	$2^{\circ} \square Y_{es} \square N_{o}$
How did you discover East Valley Astronomy Club? PO Box 2202 All members Mesa, AZ 85214-2202 complete one	are required to have a liability release form (waiver) on file. Plea and forward to the Treasurer with your membership application

### **Liability Release Form**

In consideration of attending any publicized Star Party hosted by the East Valley Astronomy Club (hereinafter referred to as "EVAC") I hereby affirm that I and my family agree to hold EVAC harmless from any claims, liabilities, losses, demands, causes of action, suits and expenses (including attorney fees), which may directly or indirectly be connected to EVAC and/or my presence on the premises of any EVAC Star Party and related areas.

I further agree to indemnify any party indicated above should such party suffer any claims, liabilities, losses, demands, causes of action, suits and expenses (including attorney fees), caused directly or indirectly by my negligent or intentional acts, or failure to act, or if such acts or failures to act are directly or indirectly caused by any person in my family or associates while participating in an EVAC Star Party.

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.

Please	nrint	name	here
Flease	μιμι	name	nere

Date

Please sign name here

PO Box 2202 Mesa, AZ 85214-2202 www.eastvalleyastronomy.org



# The Gray Cubicle You Want to Work In by Dr. Tony Phillips

It's another day at the office.

You're sitting in a gray cubicle, tap-tap-taping away on your keyboard, when suddenly your neighbor lets out a whoop of delight.

Over the top of the carpeted divider you see a star exploding on the computer screen. An unauthorized video

Consider the following:

NASA's Science Mission Directorate (SMD) supports research in four main areas: Earth Science, Heliophysics, Astrophysics, and Planetary Science. Read that list one more time. It includes everything in the cosmos from the ground beneath our feet to the Sun in the sky to the most distant galaxies

at the edge of the Universe. Walking

among the cubicles in

NASA's science offices,

you are likely to meet

people working on climate change,

extraterrestrial life,

Earth-threatening

or a hundred other

things guaranteed

to give a curious-

asteroids, black holes

minded person goose

bumps. Truly, no other

government agency

has a bigger job

And it's not just

scientists doing the

engineers to design

its observatories and

build its spacecraft,

mathematicians to

to do. Even writers

work. NASA needs

description.

game? No, this explosion is real. A massive star just went supernova in the Whirlpool Galaxy, and the first images from Hubble are popping up on your officemate's screen. It's another day at the office ... at NASA.

Just down the hall, another officemate is analyzing global temperature trends. On the floor below, a team of engineers gathers to decode signals from a spaceship that entered "safe mode" when it was hit by a solar flare. And three floors above, a financial analyst snaps her pencil-tip as she tries to figure out how to afford just one more sensor for a new robotic spacecraft.



analyze orbits and decipher signals, and financial wizards to manage the accounts and figure out how to pay for everything NASA dreamers want

Some of the employees of NASA's Science Mission Directorate may work in gray cubicles, but their jobs are anything but dull. They get to study Earth, the Sun, the Solar System, and the Universe!

These are just a few of the things going on every day at NASA headquarters in Washington DC and more than a dozen other NASA centers scattered around the country. The variety of NASA research and, moreover, the variety of NASA people required to carry it out often comes as a surprise. and artists have a place in the NASA scheme of things.

Someone has to explain it all to the general public. Clearly, some cubicles are more interesting than others. For more information about the Science Mission Directorate, visit science.nasa.gov. And for another way to reach the Space Place, go to http://science.nasa.gov/kids.

### If It's Clear... by Fulton Wright, Jr. Prescott Astronomy Club

### NOVEMBER 2011

Celestial events (from Sky & Telescope magazine, Astronomy magazine, and anywhere else I can find information) customized for Prescott, Arizona. Remember, the Moon is ½ degree or 30 arcminutes in diameter. All times are Mountain Standard Time.

All month comet C/2009 P1 (Gerradd) continues to put on a show. See the November 2011 issue of Sky & Telescope, p. 52; or Astronomy, p. 46 for details.

On Wednesday, November 2, the Moon is at first quarter phase and sets at 12:24 AM (Thursday).

On the night of Thursday, November 3, at 12:10 AM (Friday) Ganymede disappears behind Jupiter. 3 minutes later lo moves from in front of the planet. 10 minutes after that lo's shadow leaves the planet.

On Sunday, November 6, at 2:00 AM, most of the United States goes off daylight savings time (they fall back). Arizona sails on smoothly, never having engaged in such foolishness.

On Tuesday, November 8, the asteroid 2005 YU55 passes closer to the earth than the Moon. See Sky & Telescope, November 2011, p. 53, for a finder chart. You should be able to detect its motion easily.

On Wednesday, November 9, about 6:00 PM, you can see 3 objects close together in the west and 2 in the east. With bin-

oculars look low in the southwest for Venus (magnitude -4), Mercury (magnitude 0) to the lower left, and Antares (magnitude 1) more to the lower left. You won't need binoculars to see the nearly full Moon (magnitude -12) and Jupiter (magnitude -3) low in the east.

On Thursday, November 10, at 5:22 PM, (7 minutes before sunset) the full Moon rises spoiling any chance of seeing faint fuzzies for the night.

On Friday, November 11, between 2:00 and 5:30 AM, you can see Mars (magnitude 1) near Regulus (magnitude 1.4).

On Monday, November 14, at 6:46 PM, Ganymede moves from in front of Jupiter. 4 minutes later, Ganymede's shadow falls on the planet and remains there for almost 2 hours.

On Thursday, November 17, at 11:43 PM, the last quarter Moon rises.

On Thursday, November 24, it is new Moon.

On Saturday, November 26, about 6:00 PM, you can see Venus near the Moon. With binoculars, look 10 degrees above the southwest horizon for brilliant Venus (magnitude -4). Then look 3 degrees to the right for the much dimmer, very thin crescent Moon.

### Do you like getting involved with the general public and sharing both your knowledge and love of astronomy?

Would you like to learn the operations of an amateur observatory?

Like to become more familiar with a Paramount ME mount, a 16" Meade SCT and The Sky X?

### Then please volunteer to join the staff at Gilbert Rotary Centennial Observatory

To avail yourself of this wonderfully rewarding opportunity, please contact the observatory manager, Martin Thompson grco@eastvalleyastronomy.org



### 2012 Club Officer Elections

Any club is only as good as its members... and the East Valley Astronomy Club has some pretty fantastic members.

The club's bylaws require us to elect officers in November for the following year. We are primarily looking for members who are interested in filling the positions being vacated because of term limits, but any member may throw his or her hat in the ring for any elected position.

The election process, fully articulated in the EVAC Constitution & Bylaws (available online), is quite simple:

Officers and Board Members shall serve a period of one (1) year and/or until their successors are elected. No member shall be eligible for more than two (2) consecutive terms in the same office.

In accordance with our bylaws, nominations for Officer or Board positions were opened at the October general meeting and were publicized in the club newsletter and on the club website prior to the November general meeting. Nominations will be closed with the start of elections at the November general meeting.

Any member may nominate another member-in-goodstanding for office, provided prior consent of the nominee has been given. The Secretary and/or Treasurer shall validate qualification of the nominees.

Officers and Board Members shall be elected by a simple majority of the General Assembly present at the November general meeting. Voting will be done by secret ballot. Single nominees for office may be affirmed to the position by a majority *yes* vote taken by a show of hands. All ballots, if any, shall be saved until the installation of officers at the January general meeting, and a committee of volunteers will do the ballot counting. In the case of a tie, a special run-off election at the December general meeting shall determine the election.

If you want to contribute to the operation of EVAC, please contact Steven Aggas, EVAC president, to let him know which position is of interest. Steven will then present his slate of volunteers at the next meeting, If more than one person is interested in any position there will be a vote. Is this the year you give back to the club?

Executive Office	ers	
	<u>Current</u>	<u>2012</u>
President:	Steven Aggas	Open
Vice President:	Steven Aggas $(Acting VP)$	Open
Treasurer:	Silvio Jaconelli (Term-Limited)	Open
Secretary:	Claude Haynes	Open
Board of Directo	ors	
	Current	2012
	Marty Pieczonka	Marty Pieczonka
	Dave Coshow	Dave Coshow
	Brad Geisler	Brad Geisler
	Ray Heinle (Term-Limited)	David Hatch
	Ed Thomas	Open
Administrative (	Officers	
	<u>Current</u>	<u>2012</u>
<b>Events</b> Coordina	tor: Lynn Young	Lynn Young
Property Directo	r: David Hatch	Ďavid Hatch
Membership:	Les Wagner	Les Wagner
Newsletter Edito	r: Peter Argenziano	Peter Argenziano
Webmaster:	Marty Pieczonka	Marty Pieczonka
Observatory Man	ager: Martin Thompson	Martin Thompson

# RA: ooh 49m 07.3s Dec: +57° 48' 48" PA: 323° Sep: 13.25" Mag: 3.58 - 3.63

# Achird (Eta Cas, 24 Cas) Multiple Star System in Cassiopeia





As one of the many benefits to becoming an East Valley Astronomy Club member, we have an 8 inch Dobsonian reflector with eyepieces available for monthly check-out to current EVAC members. Have any questions, or interested?

### Call or see David Hatch, EVAC Properties Manager 480-433-4217







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. Printed copies are available at the monthly meeting. Mailed copies are available to members for a slight surcharge to offset printing and mailing expenses.

Please send your contributions, tips, suggestions and comments to the Editor at: news@evaconline.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.evaconline.org

President: Steven Aggas Vice President: Steven Aggas (acting) Secretary: Claude Haynes Treasurer: Silvio Jaconelli Board of Directors: Marty Pieczonka, Dave Coshow, Ray Heinle, Ed Thomas & Brad Geisler **Events Coordinator: Lynn Young** Property Director: David Hatch **Refreshments: Mort Hanlon Observing Program Coordinator: Marty** Pieczonka AL Representative: David Douglass Membership: Les Wagner Newsletter Editor: Peter Argenziano Webmaster: Marty Pieczonka SkyWatch Coordinator: Claude Haynes **Observatory Manager: Martin Thompson** 

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