

East Valley Astronomy Club

September 2001

www.eastvalleyastronomy.org

Scottsdale, Arizona

Astronomy Talk

By: Randy Peterson

On Wednesday, August 1, Dr. Jeff Hester was a guest speaker at the Arizona Science Center's monthly "Adults Night Out" event. Dr. Hester has also been a past guest speaker at EVAC. His topic was **Supernova's**. This talk was very well attended, and I was happy that I got in line early, as we had excellent seats in the nearly full theatre.

Dr. Hester started by reviewing the "Earth Centered" view of old, when the heavens were considered separate from the Earth – where it was shrouded in mystery and magic. The Heavens became the "fifth element", being added to Aristotle's four elements: Earth, Fire, Water and Wind.

His presentation included a lot of excellent pictures, including many from the Hubble Space Telescope, which he accesses on a regular basis. Among the pictures shown were the Veil Nebula, M20, the Eskimo Nebula, the Helix, 1987A and several others.

He did a comparison of astronomical distances, from the snap of your fingers 1/7 second for light to circumnavigate the globe, to the 11 hours it takes for light to transverse the solar system, to the 14 billion years distance which is the current furthest distance Hubble is able to reveal.

Some of the information on Supernovas was pretty amazing too. As a star goes supernova, the outer part explodes, and the inner part condenses greatly. They have figured the magnetic field of the supernova 1987A in Cassiopea to be about a trillion times the magnetic field of the earth, and that it is rotating about 20-30 times per second.

During the Q&A, he responded that he subscribes to the current theory that the Universe is expanding at an ever increasing rate [as we saw in the film at the August meeting], but that this theory may turn out to be a "red herring".

His talk was informative, entertaining, and the pictures were superb. He is a great speaker. The one hour talk went by too fast!

The cost for this event was the cost of parking, which was \$1 after my parking ticket was validated. Members of the Arizona Science Center may not only attend the monthly "Adults Night Out" talks for free, but also initially review for free the new IMAX type movies the Center shows. The movie "Solar Max" is one example of the excellent films they show. Being a member also allows you to attend the planetarium show for free every time you visit the Center. For less than \$100 for a year's membership for my family, the Arizona Science Center is one of the best investments I have made. Sorry if this sounds like an advertisement, but I guess you can tell I really enjoy my membership! Christine Shupla, manager of the Planetarium, did a great job in helping to schedule Dr. Hester.

The next astronomical talk for Adults Night Out is on the first Wednesday in November. Dr. William Stoeger, of the Vatican Observatory, will be speaking on his specialty, Black Holes.

By the way, if you don't want to spring for buying a membership, you may still attend the talk for only \$5, plus parking!

Fall Adopt-A-Highway Cleanup

By Martin Bonadio

It's time again to have some fun picking up trash! Our Club has its semiannual cleanup of the EVAC Mile scheduled for Saturday, October 6th at 8:00 AM. Our task is to pick up trash from the shoulder of the highway to the right-of-way fence (State crews are responsible for the median dividing the highway).

Look for a sign up sheet at the September monthly meeting, or call me and let me know you want to attend. With 10 volunteers, we can finish by

around 10:30am. We meet at Florence Junction (intersection of Highway 60 and 89) on the north side in the far west corner of the parking lot (closest to the radio tower). As in the past your reward for helping will be a free **club-sponsored** lunch at the Village Inn in Apache Junction (our own Randy Peterson is the manager) following the cleanup! These cleanups have always been a great time. On every one someone manages to find a very **interesting** “treasure”! So, come out, get some exercise, and get to know each other in the daylight. As well, the conversations at lunch revolve around telescopes, telescopes, and more telescopes.

Hopefully, we'll have some first-timers. They need to know:

Participants must be at least 12 years old and work in groups, facing oncoming traffic. Dress appropriately; long pants, sturdy shoes/boots, long sleeves and/or sun block, hat, and heavy GLOVES. Safety vests to be worn will be provided. Please bring some water too, as you'll work up a sweat.

Pick up bags and other litter with caution-it could contain hazardous material, be hiding a snake, etc. A stick with a nail or hook is recommended to use instead of your hands, while a large bucket cuts down trips to the trash bags. Few large objects are found out there, but if lifting one, keep your back as straight as possible, the object close to your body, and let your legs and arms do the work.

Don't let anything surprise you-our fellow citizens dispose of everything imaginable along our roadsides. If anything looks odd or is really heavy, leave it alone! Note it's location and we'll notify the State about it afterwards. When a trash bag becomes full, place it on the very edge of the pavement, not in the pullout lane.

As with any government program, there are a few requirements to complete before starting. One is a briefing from the cleanup coordinator. The second is to sign the usual waiver for the State saying participants won't sue if something happens. The forms are kept on file so one signature covers you for all future cleanups.

Contact me at 480-926-4900 or email: mabastro@aol.com if you want to help or have questions. Thank you.

EVAC Shirts

By: Randy Peterson; EVAC treasurer

An update on our EVAC shirts. The Polo shirts requested in July are ready. Most were picked up at the August meeting, but several were not. The

unclaimed Polo shirts from July will be brought to the September meeting, where they may be claimed. If you have shirts coming and can't make the September meeting, email or call me, and we'll discuss options!

All T-shirts that have been requested so far from July through August 10 have been ordered, and will also be available at the September meeting.

Additional requests for both kinds of shirts will be taken on an ongoing basis. When requests for a minimum of 24 T-shirts or 12 Polo shirts are accumulated, the order will be placed, and shirts will then be available at the next meeting. As of August 11, we have several Polo shirts requested: we are just waiting for several more, so the order may be placed. You may place your request at the next meeting, or mail your request accompanied by payment to the EVAC P.O. Box, listed on the “membership/order form”.

A couple of changes for the T-shirts: We have switched to 4-color printing for the M-51 galaxy on the front of the T-shirt (from 3-color). These will look awesome! Thanks to Chris Schur for the great picture! Our costs on the T-shirts were higher than I figured for the “ash” colored shirt, so we are going to stick to white shirts only in the future. If you already ordered an “ash” colored shirt, however, it is on its way. We are going to try to place the T-shirt order in minimum quantities of 24 shirts to help EVAC get a better price on these shirts also. If three months goes by and we don't hit our goal of 24, we plan to order your requested T-shirts anyway, and just get a few extra for future sales. Our goal is not to make money on the shirts, but we don't want to lose money either. Thanks in advance for your patience!

Stargazing in San Diego

By: Greg Myers

Every summer, the wife and I stay at our timeshare in Escondido for 1 to 2 weeks, depending upon whether we can book the 2nd week. This year we were able to do so. That meant that we were going to be there during the new moon.

I decided to take my new 10” Meade LX200 with me for some 1st time CA stargazing. I got on the web and investigated what astronomy club was located in San Diego, whether they had a star party site and when/where they held the event.

The SDAA (San Diego Astronomy Association) at <http://www.sdaa.org/> was quickly found via the “Amateur Astronomy Clubs and Organizations” website at <http://www.aspsky.org/links/clubs.html>.

SDAA offers several monthly events:

- The 1st is their “Stars in the Park” event at the Ruben H Fleet Planetarium courtyard on the 1st Wednesday of each month. It is done in conjunction with a program at the Science Center.
- The 2nd is a twice monthly star party for the public at their Tierra Del Sol observing site about 50 miles East of San Diego on I8. “The site is 10 acres faraway from the lights of the city with excellent dark skies. The Lipp 22” is available for public viewing and hosted by trained members. The public is invited to come view through the telescope and request views of their favorite objects. The dates are set for the dark of the moon, Only a 75 minute drive east of San Diego, the site offers dark skies, moderate climate, and amenities such as rest rooms and electricity on the public observing pads.”

When I asked the SDAA event coordinator whether this was the best site/event for my location in Escondido, I was referred to the OCA (Orange County Astronomers) at <http://www.chapman.edu/oca/>.

I discovered that they also have a number of outreach programs, one of which is their “Explore the Stars” star party put on at the “Observatory Campground” in the Cleveland National Forrest on highway S6, just below Mt. Palomar. The url for this program is: <http://www.sipe.com/explore/>. This event is done once a month, on a Saturday, at the time of the new moon. This was ideal for me, as it was only about 25 miles away from where I was staying in Escondido.

When I got there about 7:30, the members had finished their evening potluck meal and meeting, All the campers had been invited to an orientation in the campground amphitheatre, and were then escorted to the 6-7 camp sites reserved for the OCA members w/scopes. We spent the next several hours answering questions and showing the public images of deep sky objects. The seeing was terrific. We were at an altitude of about 5000 ft. It was so dark that I thought that the Milky Way was a high, bright cirrus cloud. When the public retired for the evening about 11:00 pm, we turned to our own observing plans for the remainder of our stay. Since I had to check out of our villa by 10 am the next morning, I left the site about 2 am.

I thought that I'd share this information with you on these two clubs because a lot of us visit San Diego each year and it's nice to know that there are opportunities to stargaze with clubs there, if your visit coincides with their events.

In conclusion, please feel free to communicate with the club event coordinators if you'd like to participate in any of their monthly events.

I found both gentlemen at SDAA & OCA very helpful and hospitable. The OCA gentleman saved me a campsite, knowing in advance, that I wished to stargaze with them.

President's Comments

By Martin Bonadio

I can't believe that we've now rolled past August. This year seems to be flying by. The good news is that with the upcoming fall months we should start be seeing less monsoon activity and get more opportunities to observe. For me this summer between work and clouds I haven't been able to get my scope out more than for a few evening or early morning observing sessions.

Starting in September, there a few notable observing and EVAC events that I wanted to mention.

On Friday, September 14th at 7:30pm the Gilbert Library is having their monthly Riparian Skywatch program. Silvio Jaconelli is going to speak this coming month, and after the talk there will be telescopes set up and some observing. They are always looking for a few volunteers to set up telescopes for public viewing, so come on out if you are interested.

Also on September 14th and 15th, the Northern Arizona Star Party, sponsored by the Prescott Astronomy Club, will take place on Mingus Mountain, off highway 89A between Prescott Valley and Jerome. Contact Gary Frey, P.O. Box 1114, Mayer, AZ, 86333; 928-632-7355; gfreynpo@mindspring.com; <http://www.pacorg.net>.

There will be an EVAC beginner's lab on Saturday, September 29th. This will be held at David Coshow's home starting at 7:30pm that evening. It's open to all EVAC members who have questions about their telescopes, observing, or just want to check out the equipment. We could also use a few veterans to be on hand to answer questions. I will have maps to David's house at the next meeting or call David at 480-730-1132 or jdcoshow@qwest.net for details.

I am in the process of forwarding contact information to the SIG hosts so that they can start forming activities. The deep sky SIG that I am hosting will probably try and meet semi-monthly with a few dark sky-observing trips each year. I hope to get in touch with everyone who signed up this month and set up an initial meeting in September so that we can discuss our ideas for the group. I'm looking forward to participating in other SIG activities. I think I signed up for all of them!! Ha ha.

There will be an adopt-a-highway cleanup on October 6th on the mile stretch of highway just before the Florence Junction. This is something that we do twice each year, and it's a lot of fun. After the cleanup, we compare treasures and then go out to a club sponsored lunch. See my article in this edition for specific details.

On October 12th and 13th. EVAC will sponsor the All-Arizona Star Party in Arizona City!! I always look forward to this, and I hope a lot of our members and fellow AZ amateurs can make it. Diana Jane' and Don Wrigley are coordinating the event, and we'll have maps at the September EVAC meeting, and in the October edition of the newsletter.

Whew!! There is always a lot happening in our club. This is exciting news, and again I look forward to all the fun in the upcoming months.

Next order of business is the annual EVAC elections. Starting in September we will begin to accept nominations for club positions as follows.

- **President**
- **Vice-President**
- **Treasurer**
- **Secretary**
- **Properties Manager**
- **Newsletter Editor**
- **Star Party Coordinator**
- **Membership Coordinator**
- **Board Members (5 or 6)**

I encourage all current officers to volunteer for a 2nd term if applicable, and want to thank those who are completing their 2nd terms for their continuing efforts. Also thanks should go out to all the officers this year for doing such a great job organizing club events. Anyone in the club is welcome to volunteer for a position. If you have suggestions for a new position next year I also welcome your ideas! Nominations will continue through October, and a vote will take place at the November meeting if necessary. Contact any of the current officers or myself if you have questions about the duties of any position.

Have a great September! Clear Skies.

July EVAC Board Meeting Minutes

By: Tom Mozdzen

The board meeting was held at Dave Coshow's house and began at 7:30pm on 7/27/01, after a pizza snack.

Members Present:

Martin Bonadito Dave Coshow
Ken Levy Gene Lucas
Tom Mozdzen Joe Goss
Rick Scott

Treasurer's report:

The total balance sheet is projected to be flat for the year.

T-Shirt advanced purchase:

The board decided to make an advanced order of T-shirts, and sell them to future buyers.

IDA membership:

The board voted to renew membership in the IDA organization.

Pierre Schwaar Scholarship fund:

Gene was assigned the task of researching this fund. He will gather more information about contributing to a scholarship fund. Matching membership contributions up to a certain limit was one proposed method of participating.

Newsletter stats:

We are at 55 hardcopy mailings out of a possible 176 (total membership). This is helping to reduce our fixed costs. (~\$120 savings per month)

Properties Report:

Rick bought 6 eyepieces: 25mm, 17mm, 6mm for our two scopes for under \$200. Our scopes are both 6" f8 Dobsonian scopes.

The board voted to buy a video of a lecture series for \$120. It consisted of 40 lectures of 45min duration each.

All Az Star Party:

We (Don and Diana) will be more proactive in promoting the party through magazine articles, and other clubs.

Paid Star Parties:

Pending membership support, we will pursue providing a paid star party service. Martin will probe the club to see if there is support for this topic.

Kitt Peak trip in the fall:

Mirror lab is open Mon-Fri, but not on the weekend. Need to find an employee to give us a view as a special favor. A trip to the mirror lab should be a separate trip to the peak for an opportunity to view through the 16" scope at ~\$30/head.

SIG Funding:

If the SIGs need money for something, then they should write up a proposal and submit it to the board.

Upcoming Positions:

Several officers have served the limit of two consecutive terms of office and will need to be replaced next year.

The newsletter editor will retain control over dividing up the task to his/her discretion. The number of positions on the ballot for next year will not change.

December Meeting:

Looking for a big speaker for the December meeting. Ideas for speakers are welcome.

Christmas Party:

Martin will coordinate. Place is still undecided.

Opens:

A night of software star chart comparisons with several laptops and the 3-gun projector was proposed. Other special meeting formats were also discussed.

The meeting ended at 9:50pm.

EVAC Meeting Minutes

by Tom Mozdzen

08/08/01

7:30pm: Martin Bonadio called the meeting to order. There were about ~70 people in attendance with several guests present. Martin showed a few slides on his "fix-up" project from his scope.

Upcoming star parties and events were discussed:

- All Arizona Star Party October 12-13
- Northern Arizona Star Party September 14-15
- Gilbert Library – 2nd Friday of each month – Hosted by Riparian Skywatch.
- Dinner with the speaker @ 5:30pm at Blackeyed Pea – Scottsdale Pavilions shopping center (Pima & Indian Bend).
- Next beginner's lab – September 29 at Martin's house.
- Volunteers needed for:
 - EVAC Family meeting organizers
 - SIG group members – we now have leaders:
 - Double Stars – Silvio Jaconelli
 - Deep Sky – Martin Bonadio
 - ATM – Rick Scott
 - Astrophotography – Chuck Crawford
 - Occultations – Randy Peterson/Bill P.
 - Planetary Exploration – Laurice Dee
 - Newsletter Article collector
- Arizona Explorer Magazine – Article Collaborations
- Special thanks to those who volunteered to be SIG leaders.
- Congratulations to Joe Goss on observing the EVAC 200 list!

- Congrats to Chris Schur on getting another photo published in Astronomy magazine!!
- Gene Lucas now has an asteroid named after him!!!

Show and Tell

Joe Orman – Gave a us a sampling of his latest photos of the night sky, accented with a flash of the desert. Joe also had many nice shots of the planets.

Laurice Dee – Talked about the various NASA scientific satellites and where they are in the life of their missions.

8:20 Break

8:30 Main Speaker

Our main speaker was the Nova video on Supernovas.

9:30 pm Meeting Adjourned.

If it's clear... September 2001

By Fulton Wright, Jr.; Prescott Astronomy Club

Shamelessly stolen information from Sky & Telescope magazine, Astronomy magazine, and anywhere else I can find data. When gauging distances, remember that the Moon is 1/2 a degree or 30 arcminutes in diameter.

On Monday, September 3, about 5:00 AM, you can see Venus near a star. With a small (3 inch) telescope look for Venus (mag -4) and Delta Cancri (mag +4, yes, that's 8 magnitudes fainter) 2 arcminutes apart. The pair rises at 3:30 AM and the Sun rises at 6:05 AM.

On Saturday, September 8, at 9:19 PM, you might see an asteroid occult a star. Antigone (mag 11) might cover SAO 165635 (mag 8.5). The event happens 20 degrees above the southeast horizon. As always, it is hard to predict the occultation path. See Sky & Telescope Feb 2001 p. 116 and Sep 2001 p. 98 for details.

On Monday, September 10, at about 5:00 AM, you can see the Moon occult Saturn. With a small (3 inch) telescope, look 70 degrees above the southeast horizon for the last quarter Moon with Saturn to the east. It will take about a minute and a half for the Moon to move over Saturn's ring system. Here is the schedule of events: 5:02 AM the bright limb of the Moon starts to cover Saturn 6:09 AM the Sun rises 6:29 AM Saturn starts to reappear (hard to see in daylight)

On Wednesday, September 12, about 4:00 AM, you can see the Moon pass within half a degree of Jupiter.

With binoculars or a wide field telescope, look 40 degrees above the east horizon for Jupiter (mag -2) to the right of the fat crescent moon.

On Tuesday, September 18, about 7:00 PM, you can see a collection of objects. With your unaided eye or binoculars look low in the west-southwest for the crescent Moon. To the left is Spica (mag 1) and below it, Mercury (mag 0). Spica and Mercury will be even closer the next night.

On Wednesday, September 19, about 7:00 PM, you can see the southeast part of the Moon at its best. With a small (3 inch) telescope, look 15 degrees above the west-southwest horizon for the thin crescent moon. Tonight and the next couple of nights. libration tips the southeast part of the Moon toward us.

On Thursday, September 20, about 5:30 AM, you can see Venus (mag -4) within 1 degree of Regulus (mag 1.5). Look 15 degrees above the east horizon.

EVAC & Other Events: 2001					
	New Moon	Meet	Local	Deep Sky	Other
Sept	9/17	9/12	9/15	9/22	9/14 & 9/15 – Northern Arizona Star Party 9/29 - Beginner's lab @ David Coshow's House
Oct	10/16	10/10	None	10/20	10/6 - Adopt-a-Highway cleanup 10/12 & 13 – All AZ Star Party
Nov	11/15	11/14	11/10	11/17	11/17 - Leonid Meteor Shower
Dec	12/14	12/12	12/8	12/15	Xmas party (TBA)

Deadline for the October Newsletter
Submissions is September 20th, 2001.
Send articles to JKLINE29@HOME.COM

East Valley Astronomy Club Membership Form

Please complete this form and return to the club treasurer at the next club meeting OR mail to EVAC, P.O. Box 2202, Mesa, AZ 85214, with a check or money order made payable to EVAC.

IMPORTANT:

ALL memberships expire on December 31 of each year.

New Member Only - select month joining:

- () \$20.00 January – March
- () \$15.00 April – June
- () \$10.00 July – September
- () \$ 5.00 October – December

Membership Renewals:

- () \$20.00 January – December

Name Badges:

- () \$7.00 each Name: _____

(New) (Renewal) Magazines: if renewal, customer #

- () () \$29.00/yr Astronomy Magazine
- () () \$30.00/yr Sky & Telescope

Newsletter delivery option, check one:

- () E-mail (saves club postage/printing) () U.S. Mail

Total enclosed \$ _____

Name: _____

Address: _____

Phone # (____) _____ **E-mail** _____

URL: _____

Polo shirt: Hanes, short sleeved, with pocket on left.
50% cotton/50% polyester.
EVAC logo in black on right.
Logo may not show up as well on Royal Blue.

Polo Shirt Order Form

SIZE	M	L	XL	XXL	XXXL
Color	Qty:	Qty:	Qty:	Qty:	Qty:
White					
Ash					
Light Steel					N/A
Light Blue					N/A
Royal Blue					N/A
Price>	\$16	\$16	\$16	\$18	\$19

T-shirt: Hanes, short sleeved with pocket.
Pre-shrunk 100% cotton.
Four-color silkscreen picture of galaxy on front.
Large EVAC logo in black on back of shirt.
Stars in picture are color of shirt. (Picture on back, EVAC logo on front)

T-Shirt Order Form

SIZE	S	M	L	XL	XXL	3XL
Color:	Qty:	Qty:	Qty:	Qty:	Qty:	Qty:
White						
Ash						
Price>	\$14	\$14	\$14	\$14	\$16	\$17

Clothing: IMPORTANT: Your shirt will not be made until a minimum of 12 polo shirts or 24 T-Shirts are ordered. Please be patient.

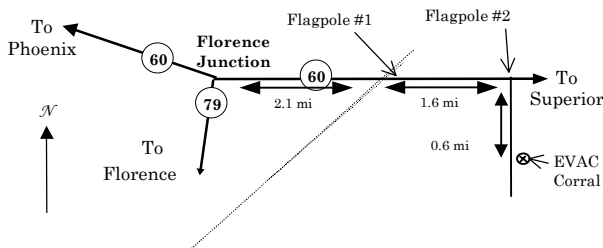
EVAC Star Parties

Local Star Party: Florence Junction Site

General Information: The Florence Junction site is the official site for the East Valley Astronomy Club's Local Star Party, typically held on the Saturday closest to Last Quarter Moon. Florence Junction offers reasonably dark skies within a short drive of most east Valley locations. (Report gunfire or illegal activity: 800/352-3796; Land use permit number: 26-104528.)

Location: N 33° 14' 40" W 111° 20' 16"

How To Get There: Take US 60 east to Florence Junction. Go past Florence Junction. 2.1 mi past FJ are railroad tracks, and on the right will be a flagpole. Do not turn there. Continue on for another 1.6 miles until you find the second flagpole on the right. This is your turn. Turn right, and continue on the dirt road for 0.6 miles. The corral is on the left, just before a gas-line sign.

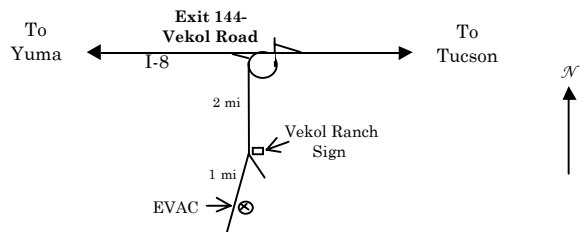


Deep Sky Star Party: Vekol Road Site

General Information: The Vekol Road site is the official site for the East Valley Astronomy Club's Deep Sky Star Party, typically held on the Saturday closest to New Moon. Vekol Road offers dark skies despite prominent sky glow from Phoenix to the north. The site is within 1½ hours drive time from most east Valley locations.

Location: N 32° 47' 55" W 112° 15' 15"

How to Get There: Take I-10 south and exit onto Maricopa Road. Continue through the town of Maricopa to SR 84, about 25 miles from I-10. Turn right on SR 84, after about 5 miles the road merges with I-8. Continue west and exit I-8 at Vekol Road—Exit 144. Turn left and cross the highway overpass. Before looping back onto I-8 take the dirt road to the left. Go south for 2 miles. At the Vekol Ranch sign bear right and continue south for another mile until reaching a large, open area on the left.



EVAC Officers

PRESIDENT

Martin Bonadio
(480) 926-4900

VICE-

PRESIDENT

David Coshow
(480) 732-1132

TREASURER

Randy Peterson
(480) 947-4557

SECRETARY

Tom Mozden
(480) 497-5703

PROPERTIES

Rick Scott
(480) 821-5721

NEWSLETTER

Jim & Chris Kline

Membership & Subscriptions: \$20 per year, renewed in December. Reduced rates to *Sky & Telescope* and *Astronomy* available. Contact Randy Peterson. PO Box 2202, Mesa, AZ. 85214-2202. Email: rgp14159@aol.com

Club Meetings: Second Wednesday of every month at the Scottsdale Community College, 7:30 p.m. Normally Room PS 170 or PS 172 in the Physical Sciences Building. See map below.

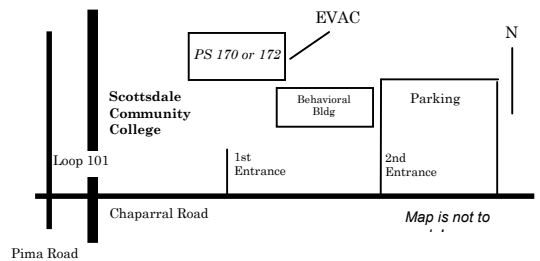
Address Changes: Contact Randy Peterson. PO Box 2202, Mesa, AZ. 85214-2202. Email: rgp14159@aol.com

Newsletter: Contact Jim & Chris Kline. 1209 W. Palo Verde Dr., Chandler, AZ 85224. Email: jkline29@home.com. Contributions may be edited. The Newsletter is mailed out the week before the monthly Club meeting. An electronic version is available in Adobe PDF format in lieu of a printed copy. Please notify Jim & Chris of your delivery preferences.

EVAC Library: The library contains a good assortment of books, downloaded imagery, and helpful guides. Contact Rick Scott for complete details, (480) 821-5721

Book Discounts: A 10% discount when ordering books from Kalmbach and Sky Publishing. Order forms have a line for club members to subtract discount from regular price.

EVAC Party Line: Let other members know in advance if you plan to attend a scheduled observing session. Contact Stan Ferris, (480) 831-7307.



Jim & Chris Kline, Editors
1209 W. Palo Verde Dr. Chandler, AZ 85224

EVAC on the Internet
EVAC Homepage: www.eastvalleyastronomy.org

E-mail Mailing List:
 AZ-Observing is a fairly general mailing list about observing in Arizona. Included are star party information, who is going, as well as the latest observations and astronomical events.
 To join, send E-mail with the "Subject: subscribe" to AZ-Observing@freelists.org

Although EVAC is a private club not open to the public, we do encourage potential new members to initially join us at our club meetings and/or star parties to help them determine the suitability of the club to meet their needs.

**Reminder: Next EVAC Meeting
Wednesday, September 12, 2001**