East Valley Astronomy Club

April 2001 **www.eastvalleyastronomy.org** **Scottsdale, Arizona**

Important Message Volunteers Needed

By Martin Bonadio, President

On **April 14th,** EVAC has been invited to help the Arizona Science Center celebrate their 4th anniversary. To help commemorate this event, they would like our help in educating the public about our interest in astronomy. This is an excellent opportunity to share our exciting hobby with others.

The Science Center will be providing us with a booth, poster stands, and floor-space for demonstrations. In addition, we will have plenty of room outside to display telescopes. They have asked that we start at around 11am and continue until 4pm.

If you would like to participate, we are in need of volunteers to:

- Hand out literature and answer questions about EVAC at the booth.
- Set up solar telescopes outside during the day.
- Set up telescopes outside in the evening.
- Set up telescopes inside on the floor space and help answer visitor questions.
- Display poster presentations of Astronomy related topics such as CCD images, Astro-photos, Space events, etc.

We will also being showing the EVAC slide show (presented by Rick Scott and Joe Orman last December) at 11am and 2pm in the Science Center Gallery.

If you would like to participate, please contact Martin Bonadio @ 480-926-4900 or email: mabastro@aol.com. Even if you can only join us for a few hours, your assistance will be greatly appreciated by all. Let's show Arizona how great a club we really are!!

Astronomy Day Activities

By: Christine Shupla: Planetarium Manager; Arizona Science Center

We have most of the details worked out for our Astronomy Day activities. We will be celebrating it here at the Arizona Science Center on April 14th and members of EVAC, PAS, SAC, GPIDA, and Lowell Observatory are participating.

In addition to hands-on activities, solar viewing, and individual presentations during the day, we have some evening activities planned. We will be having a viewing session here, and newcomers are invited to come speak with the club members about observing techniques and to get pointers on buying and using telescopes. We also have some speakers lined up:

6 pm - Ken Duncan, an Apache storyteller, will tell stories in the planetarium

7 pm - Dr. Stephen Odewahn will make a presentation on using computers to help with galaxy identification in the Flinn Theater

8 pm - Wil Milan will make a presentation on the VLA in the Flinn Theater.

Those who are assisting their clubs will be admitted free; others will be charged regular Science Center admission ($8 per adult, $6 per children/seniors, members are free); there is no additional charge for attending the lectures.

Scottsdale Community College Star Party

By Martin Bonadio, President

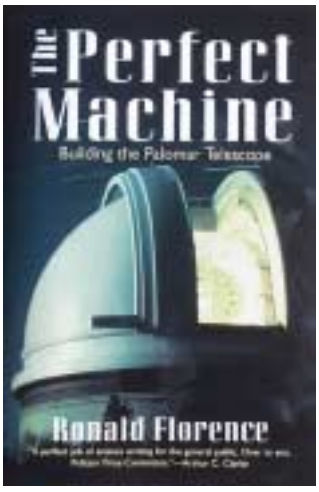
As many of you may be aware, the Scottsdale Community College allows us to use the meeting room for our general meetings each month. In addition, we have access to their overheads, projectors, and computers. In fact, for the past several years we have been given permission to use the Auditorium for our bigger meeting events!! They have been very generous and I must commend Steve Mutz, of SCC, for helping make all this possible!!

In return, EVAC sponsors a star party for Mr. Mutz and his Astronomy class. We try to do this each semester so that all his students have a chance to enjoy a night under the stars. Our next SCC start party will be on **Thursday, April 19th starting at 7pm**.

We are looking for volunteers to meet us that night and setup telescopes for a few hours, answer student's questions, and let them look at some brighter objects in the sky. We will meet around 6:30pm at the NE part of the campus, past the parking lot, in the corner of a dirt field. If you are interested in attending, please contact Martin Bonadio @ 480-926-4900 or email: mabastro@aol.com Hope to see you there!

Library Focus

by Joe Orman



This month's review: ***The Perfect Machine: Building the Palomar Telescope*** by Ronald Florence.

If this were a work of fiction, a reader might dismiss it as being unbelievably fantastic.

A factory casts the largest piece of glass ever made, only to discover after a 4-month cycle of annealing and cooling that the 200-inch diameter, 20-ton circular slab is flawed and must be completely re-done. During the 10-month cooling of the second piece, the factory floor is inundated by a flood, necessitating a frantic all-night effort with jackhammers and cranes to lift above the rising waters the huge transformers which power the furnace.

The resulting colossal disk of glass is transported across the country on a train whose car and route are customized to admit the passage of such an immense object. Crowds across the country gather to see the crated cargo pass, with the awe and respect usually reserved for presidents.

Five tons of glass is removed from the surface by grinding and polishing to achieve the required shape. The patient workers cannot see any result of their effort; only weekly optical tests show any progress. The final figuring is accomplished by individual rubs of a finger across the surface, then waiting for the distorting heat generated by that rub to dissipate. By the time the polishing is declared complete (having been interrupted by a World War), the glass has spent more than 11 years in the optics shop. The result is a surface so precise that its 200-inch span is accurate to within 2 millionths of an inch.

A drawing by Russell W. Porter of the 200" Hale Telescope

On the day chosen to transport the glass to its mountaintop home, an unforecasted storm requires the transport trucks to negotiate the steep hairpin turns up the mountainside in pouring rain. The mammoth glass is then loaded into the pre-assembled observatory, completing its long journey without a scratch. The 12-story high dome rides on rails that were polished for 6 months, rotating so smoothly that visitors

become disoriented -- swearing it is the building that rotates while the dome remains still.

The surface of the glass is cleaned with Wildroot Cream Oil hair tonic, then coated with a layer of aluminum only a thousand atoms thick. The mechanism that supports and aims the resulting mirror is one of the largest structures ever machined. It is balanced so finely, and floated on an oil bearing so frictionless, that the entire 500 tons can be rotated by the weight of a single milk bottle.

Through the depths of the Great Depression, individuals of wealth continue to finance all this ... a task unlike any that has ever been done before, will not be completed for years to come, and will result only in unforeseeable and intangible scientific progress. The project is planned and executed by a man whose body and mind are so affected by the stress that he has to take months off at a time to rest -- and dies before its completion.

Twenty years after it was first funded, and only 9% over budget, the machine is finished -- the biggest of its kind in the world. The scientists that follow use its steady gaze to view a cosmos that had previously been beyond the reach of even their dreams.

But, incredibly, this is not fiction. All of these things really happened, in the construction of the 200-inch Hale Telescope which still operates atop Southern California's Palomar Mountain. Ronald Florence's "The Perfect Machine" is as thrilling as any adventure story, as engaging as any mystery novel, and contains as much pathos as any Shakespearean tragedy. It should be required reading for anyone planning a pilgrimage to the mountain, to stand in the presence of the great telescope itself. Florence's vivid account will not only give visitors an appreciation of the gigantic scale of the precision instrument, but also the unseen enormous quantities of money, labor, ingenuity and patience that went into its making. The world has known many larger telescopes since, but in terms of human effort overcoming adversity, indeed there has never been a more perfect machine.

This and many other books may be checked out free of charge to EVAC members. Browse the library at the next meeting, or contact club properties manager Rick Scott at rmscott@home.com or (480) 821-5721.

Observing Report from Vekol

By: Chris Adamson

I got some observing in from Vekol Ranch (60 minutes SW of Phoenix) on March 18th. There were about 10 people or so. Weather was strange. Seeing was great early, went down the tubes, then got better late. Transparency was good early, horrible later (with lots of cloud cover) and then good again late. I did a lot of galaxy hopping, mostly in Coma Berenices and Canes Venatici.

DATE/TIME (UT): 02:00 to 07:30, March 18
LOCATION: Vekol Ranch (50 miles SW of Phoenix) Longitude: 112.25 degrees W, Latitude: 32.80 degrees N
SEEING: 7 out of 10 early, down to 4 of 10 for a couple hours, the back to 6 of 10. At various times, the E and F stars of the Trapezium were simple at 91x. Was able to split a .8 separation (14 Orionis) at 350x. Good banding on Jupiter early.
TRANSPARENCY: Generally 7 out of 10 (please note this is a relative scale for Vekol only, which I go to frequently), though a couple hours were much worse due to cloud cover. Estimate limiting mag 6.0 to 6.5. Saw galaxies down to mag 14.8.
WEATHER: 50's, very slight wind
EQUIPMENT: 16" StarMaster, 35Pan; 22, 17, 12, 9 & 7 Naglers: 10, 8, 6, 5, 4 Radians; Paracorr; GRO LOMO Binoviewer (with pairs of 32 and 24mm Ultima's, 12.5 UO Orthos).

Exact object stats listed at the end of each of the viewing notes below (mag, surface brightness and size) are from the Night Sky Observer's Guide and/or The Sky.

Jupiter - Early in the night we watched Io begin its transit over the SEB on Jupiter. Started watching from the moment it was just touching the limb of the planet and followed it a bit onto the SEB as a distinct white circle. Callisto was directly south of it, just missing the southern limb of Jupiter. Later, the shadow

transit was distinct with the GRS close behind. Banding was nice early up to 291x. Saturn also showed some good detail early. At 437x, the ring divisions were wonderful, especially the gradation in contrast in the Crepe Ring as it moved in towards the disk.

OE147 in Auriga is a nice quadruple, although tonight I could really only see ABC. C itself splits into C and D components, but at .5, I could only get hints of elongation. The A star is nice and yellow. The others silver-white. A is mag 6.6., B is mag 10, C is mag 10.6. AB is 43.2" and PA73, AC is 46.3" and PA117. Nice arrowhead shape.

NGC4111 Lenticular Galaxy in Canes Venatici at 118x has a nice double about 4' to the NNE, one yellow (GSC3019:657, mag 8) and one silver-white (GSC 3019:2033, mag 11.6), 34" split, PA241. The field is nice, though a poor star field. Moderately strong central core with hints of a dust lane to the west of the core with averted vision. No mottling visible. The halo seems perfectly symmetric around the somewhat oval core. 4'46" to the SW (PA206) is NGC4109, a small (1' x .9'), round smudge with a stellar core. GSC3019:1520, a 13.6 mag star is just on the northern tip. Very dim (the Sky lists this at mag 14.8). NGC4111 is Mag 11.63, 4.5' x .9',

SB12.1, PA150. NGC4214 Irregular Galaxy in Canes Venatici at 118x is roundish, mottled core with a tiny stellar point. Averted vision makes the halo somewhat nebula-like, and not quite round. A semi-circle of stars frame the east side. At 224x, the mottled core seems to be in two chunks, one stellar. Mag 10.18, 8.4' x 6.6', SB14.4.

NGC4244 Spiral Galaxy (edge on) in Canes Venatici at 224x fills the field. Very nice, very large, edge on. Ghostly in appearance, a couple black spots on the halo (almost reverse mottling!). Some faint stars exist at both halo tips. Mag10.57, 16.6' x 1.9', SB14.2.

NGC4449 Irregular Galaxy in Canes Venatici at 224x is very irregular! Bright and a bit patchy. A very faint star is in the eastern halo (I think it is GSC3020:987 at mag 13.41), another right off the center of the core ESE (I think it is GSC3020:996 at mag 13.02). Mag 10.10, 6.1' x 4.3', PA44, SB12.8.

NGC4490 Spiral Galaxy and NGC4485 Irregular Galaxy in Canes Venatici at 168x. The Cocoon Galaxy is a pair of interacting galaxies (Arp 229).

NGC4490 is almost fish shaped! Curves a bit towards the north. Irregular in appearance, mottled and reasonably bright. NGC4485 is a round smudge with no real central core to the North. A 14.23 mag star (GSC3020:1256) is on the eastern edge of NGC4490. Generally featureless. Maybe a slight dust lane, with averted vision to the north. NGC4490 is Mag 10.32, 6.3' x 3.1', PA124, SB13. NGC4485 is mag 12.51, 2.3' x 1.6', PA14, SB 13.8.

NGC4631 Spiral Galaxy (edge on) and NGC4627 Elliptical Galaxy in Canes Venatici at 224x (Arp 281). NGC4631 nearly fills the eyepiece. A star is directly north of the center (about mag 12). Lots of mottling, especially in the thinner, western halo. The western halo almost seems to have a small dark lane running at an W/E angle. On the western tip of the halo is GSC2531:2167 at mag 14.04. NGC4627 is a featureless, small, dim, blob 3' away towards the north at PA306. NGC4631 is mag 9.64, 15.5' x 2.7', PA86, SB13.3. NGC4627 is mag 12.93, 2.6' x 1.8', PA10, SB13.6. Nearby is....

NGC4656 Spiral Galaxy (edge on) and NGC4657 in Canes Venatici is another pair of interacting galaxies close to NGC4631. At 224x, is strange, elongated, with the "central core" stuck on the western end and a small loop at the eastern end. With averted vision, some mottling appears. All in all quite irregular. Mag 10.55, 15' x 2.9', PA32, SB14.8.

NGC5005 Spiral Galaxy in Canes Venatici at 224x has a strong core, with averted vision the halo stretches somewhat oval. Light and hazy. Not much detail. 5.7' x 2.7', PA64, SB12.7.

NGC5033 Spiral Galaxy in Canes Venatici is near NGC5005. At 224x, small central core, almost stellar. Somewhat oval. Off the center western edge is a dim star (I think GSC2541:782 at mag 13.85). Otherwise, not much detail. Mag 10.6, 10.7' x 5', PA170, SB 14.4.

NGC4274 Spiral Galaxy in Coma Berenices at 168x has a strong, large central core, with a smaller than normal halo. Fuzzy. Very oval. Off

to the SE (22') is NGC4278, NGC4283 and 4286. All are round and dim, with NGC4286 the most difficult. NGC4278 and NGC4283 have almost stellar cores, otherwise are featureless. NGC4274 is mag 11.15, 6.8' x 2.5', PA102, SB13.3. NGC4278 is mag 11.06, 4' x 3.8', SB12.7. NGC4283 is mag 12.96, 1.5' x 1.5', SB12.1. NGC4286 is mag 14.14, 1.6' x 1, PA150 (4' at PA66 from 4283).

NGC4414 Spiral Galaxy in Coma Berenices at 118x is similar to NGC4274. Oval, large central core, almost seems to have a small, dust lane to the SE. Fuzzy looking halo, with averted vision, a dim star seems to blink in and out to the NE tip. Mag 11.34, 3.6' x 2', PA154, SB12.8.

NGC4494 Elliptical Galaxy in Coma Berenices at 118x is round, but somewhat irregular. Moderately strong core. At 168x, a mini-Cygnus looking asterism is to the north. Mag 10.66, 4.7' x 3.5', SB12.9.

NGC4559 Spiral Galaxy in Coma Berenices at 168x is a very interesting site. 3 stars frame the SE edge of the galaxy (GSC1992:1757 at mag11.48, GSC1992:1659 at mag 12.35, GSC1992:2058 at mat 13.39). Hazy patches, slight darkening on the SE edge. Mottling to the north and south edge. Mag 10.23, 10.8' x 4.4', PA 150, SB 14.3.

NGC4725 Spiral Galaxy in Coma Berenices at 168x. Round/oval, very nice, strong core, averted vision brings out three stars surrounding the southern end (GSC1993:817 at mag 11.2 and GSC1990:2859 at mag 11.81), one very dim just jumping in and out of view (I think GSC1993:1158 at mag 14.32). A couple other dim stars seem to be superimposed on the halo. The north and south are fainter than the east and west, giving the galaxy a pinched appearance (almost like Hubble pictures of a two lobed nebula). Mag 9.81, 10.8' x 7.6', PA34, SB14.1. At low power (91x), NGC 4747 (Arp 159) is 24' to the NE at mag 12.83.4' x 1.1', PA30, SB13.8. Also, NGC4712 is 11.5' to the west at mag 13.09, 2.5' x 1.1', PA160, SB13.2. Both are basically featureless and dim.

NGC3412 Lenticular Galaxy in Leo at 168x is oval, somewhat strong core. Featureless. There is a dim star at the NNE edge (GSC852:749, mag 14.18). Mag 11.39, 3.6' x 2', PA154, SB12.4.

PK219-31.1 Sh2-290 Planetary Nebula in Cancer. This was tough to find. It is large (used the 31 nagler for low power, wide field and the O-III). It is large, circular though somewhat notched. A handful of dim stars frame it. Mag 12v, >980".

That was the end of the night, as I got a bit too cold to continue.

President's Comments

By Martin Bonadio

Well, late March and into April it appears that things will be staying busy. The first bit of good news is that the weather has cleared up quite a bit.

This is a good thing because we have a lot planned. At the end of March (the 30th) the club held another beginner's lab – Thanks David for hosting it at your house this time. We'll do another one in the May time frame.

The Messier Marathon was held at AZ-City on March 23/24th. I hope many of you were able to attend, and I hope that you were able to achieve your goals for the night!

Next, we have the Adopt-a-highway clean up on April 7th. I hope many of your can join us in this fun bi-annual event. Then on April 14th, we will be helping the AZ-Science Center host their 4th anniversary. EVAC will be doing their slide show, setting up a booth, showing posters, and setting up telescopes (outside for viewing and inside for demonstration). I'm really excited about this and I really appreciate those of you who volunteered to help. If you are interested in helping with any of the upcoming events, please contact me at 480-926-4900. I'm also very interested in any ideas you have.

One exciting idea that Ken Levy and I are working on is a "Family Meeting". A few times this year we will be planning to host EVAC meetings at the Science Center. These meetings will be geared toward families and children in an effort to allow more people to enjoy our club. I'm thrilled about this, and hope that many of you will join us in the coming months. Details are forthcoming. If you are interested in doing a presentation for an upcoming family meeting (or

our regular meetings) contact David Coshow at (480) 730-1132.

I finally made it out to a star party in March – the local FJ event. I was really surprised at how many people showed up this past month. I counted nearly 30 cars and almost as many telescopes. What really impressed me was that a number of people who were new to the club, or had not been out to a dark site were present. Don Wrigley, Gene Lucas, and myself stayed until well past 1am enjoying the many deep sky treasures that were to be seen.

I'm glad to see this level of star party attendance. Everyone is welcome, but it does bring me to a quick reminder about star party etiquette. For those of you planning on going to a star party here are a few tips that you might consider:

Bring a red flashlight – yellow and white lights affect night vision. It takes the human eye many minutes to dark-adapt and a misplaced light can have an adverse effect.

If you plan to leave early, the best thing to do is to park closer to the exit of the observing field, and aim your car in the direction of the road out. This will prevent you from having to turn on your lights to get out. Typically you should try to ease out of the observing field, and then get far enough away so that your headlights don't disturb others who are viewing (or worse taking an astro-photo). The best thing to do is have someone walk beside the car and help guide you out.

Alert others around you of your intention to open your car door, or leave the party. This gives them a chance to hide their eyes, and prevent loosing their night vision.

Try to arrive before it gets dark. This gives you time to setup, let your telescope optics cool down, and also gives you a chance to meet others in the daylight. Some observers plan their observing goals after they arrive, while others try to do this much further in advance.

Take a few minutes to visit the other folks at the star party. Ask questions, and try different telescopes and eyepieces. This is the best way to learn and to enjoy the hobby.

Dress accordingly – it gets cold out in the desert in the fall, winter and early spring. You'll enjoy yourself more if you come prepared. You may also wish to bring coffee, snacks, or other such items with you. An observing chair is another must for staying comfy. Just remember that we get permission to use observing sites. Pack out your trash, and leave the site clean. Fires, alcohol, smoking, and loud music are discouraged so that others are not bothered.

Don't drive home too tired. If you need to, take a short nap in your truck or a tent before driving home. Don't leave anyone there alone; the last 2 observers should leave together to prevent someone from getting stranded. EVAC wants you to be safe.

Most important – Have fun!!

Well, that's a lot to talk about! Enjoy the wonderful AZ springtime. Get out and do some observing, and let us know what you find. There is a lot to look at out there, and as I finish writing my article this month, I plan to get back to my observing charts and reference books looking for the next 25 targets!! Clear skies….

Vice-President's Comments

By: David Coshow

Our speaker this month will be Steve Dotter. Steve has an observatory located in Maricopa and has been an amateur astronomer since age 8. Steve, a past member, will be speaking to us about his involvement with the High Energy Astrophisics field and Gamma Ray Bursts. He will also talk about Variable Star observing.

As always we will meet at the Black-eyed Pea (Pima and Indian Bend) for dinner. If you are going to attend, please call me at 480-730-1132 and let me know you are coming.

Minutes of the March EVAC Meeting

By Tom Polakis for Tom Mozdzen, Secretary

President Martin Bonadio opened the meeting with calendar announcements. These include:

- Adopt-a-Highway on April 7
- Scottsdale Community College star party, which will be held on April 19.
- Arizona Science Center event on April 14

In club news, plans for an EVAC tour of the Steward Observatory Mirror Lab and Kitt Peak National Observatory are in the works. Stay tuned. Also, Rick Scott solicited interest in a smaller tour of Palomar Observatory.

Next up were member presentations. Richard Jacobs showed a number of fine CCD images taken with an ST-8 through color filters. Many of these were taken from an urban site. He remarked that his image of the Moon was one of his most challenging. Chris Schur followed with a display of his own CCD work, including splendid images of M76, NGC 2403, and Hubble's Variable Nebula. Following Chris was Laurice Dee. She discussed the NEAR spacecraft mission to the asteroid EROS. She closed by bringing up this year's Mary Odyssey mission, which she will cover during the next meeting.

Dr. Peter Wehinger was the featured speaker for the evening. The subject of his presentation was large professional telescopes. These include the 6.5m Magellan telescopes at Las Campanas Observatory in Chile, the 6.5m replacement mirror for the Multiple Mirror Telescope, and fabrication of the 8.4m Large Binocular Telescope, slated to be installed at Mount Graham in Arizona.

Armchair Astronomy

By: Christine Shupla: Planetarium Manager;
Arizona Science Center

I will be presenting an introductory astronomy course here at the Arizona Science Center this April. The "Armchair Astronomy" course is geared for adults, and will be given in the planetarium. The cost of the class includes the admission to the Science Center for that day/evening.

This series of adult evening astronomy classes will be taught in the planetarium. The classes are independent of each other, so participants can attend as many or few as they'd like. Some classes may include telescope observations, weather permitting. Registration includes admission to the Science Center for the evening. Registration fee (for each class): $15 (members) / $20 (non-members) Registration for the whole series: $50 (members) / $65 (non-members) Classes begin at 7 PM and end at 8:30 PM.

April 3 - Surveying the Solar System: An overview of the planets, moons, asteroids, and comets, with a focus on new concepts and discoveries.

April 10 - Great Balls of Fire: A look at the different types of stars and how they evolve, from formation to destruction.

April 17 - Billions and Billions: A study of the types of clusters, galaxies, and clusters of galaxies in our Universe.

April 24 - From Beginning to End: A plunge into the theories on how our Universe, Galaxy, and Solar System began, and the latest information on how it could all end.

To register, please call (602) 716-2028. For further information, contact: Planetarium Manager Christine Shupla at (602) 716-2078 or shuplac@azscience.org

If it's clear...

By Fulton Wright, Jr.
Prescott Astronomy Club for April 2001

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 Sunday, April 1 (no fooling), you can watch 2 of Jupiter's satellites disappear behind the planet. At 8:33 PM Europa goes, at 9:01 PM Io goes.

On Tuesday, April 3, about 7:30 PM you can watch interesting things with Jupiter's moons. As soon as you can find the planet in the twilight, you will see that all four moons are close to the planet and that the shadow of Europa is on the planet. At 7:48 PM Ganymede's shadow also falls on the planet. We have two shadows till 8:03 PM when Europa's leaves. Ganymede's shadow remains on Jupiter for another couple of hours.

On Thursday, April 5, about 8:00 PM you can see 2 of Jupiter's satellites (Io and Europa) close together. The same thing occurs on April 8 and 15.

On Tuesday, April 9, after 11:00 PM you can see the southeast part of the Moon at its best. Look in the southeast for the almost full moon and focus your small (3 inch) telescope on the right hand part, which is tipped toward us by libration.

On Wednesday, April 10, you can see several events with Jupiter's moons.
7:45 PM Ganymede moves in front of Jupiter (only 1 moon visible now)
8:00 PM Europa's shadow falls on Jupiter
8:41 PM Europa moves from in front of Jupiter (2 moons show)
8:42 PM Io emerges from Jupiter's shadow (3 moons show)

On Monday, April 16, about 8:00 PM, you can see all 4 of Jupiter's satellites lined up in order on one side of the planet. The same thing occurs on April 30.

On Wednesday, April 25, about 7:30 or 8:00 PM, you can see the thin crescent moon between Jupiter and Saturn in the west.

On Friday, April 27, you can see the Moon occult two 3rd magnitude stars.
7:30 PM Moon hides Eta Gem
8:19 PM Moon reveals Eta Gem (reappears on bright side)
10:55 PM Moon hides Mu Gem (Moon only 7 degrees above horizon)

For Sale:

Celestron G-3 Maksutov-Cassegrain. 90mm aperature w/ 1000mm F.L. at f/11. Includes 25mm eyepiece, CG-3 Equatorial mount, adj. tripod, motor drive (not used), and custom carry case. 1 yr old. Asking $325. Contact Jim at (602) 820-0372.

Deadline for April Newsletter Submissions is April 25th, 2001. Send articles to JKLINE29@HOME.COM

EVAC & Other Events: 2001

	New Moon	Meet	Local	Deep Sky	Other
Apr	4/23	4/11	4/14	4/21	4/7 Adopt-a-highway 4/14 EVAC Slide Show 4/17 SCC Star party
May	5/23	5/9	5/19	5/26	
June	6/21	6/13	6/16	6/23	
July	7/20	7/11	7/14	7/21	
Aug	8/19	8/8	8/11	8/18	
Sept	9/17	9/12	9/15	9/22	
Oct	10/16	10/10	10/13	10/20	

East Valley Astronomy Club

EVAC on the Internet

EVAC Homepage: www.eastvalleyastronomy.org

E-mail Mailing Lists

EVAC-mls is a mailing list for club announcements and quick notification of astronomical events.
To join, send E-mail with the "Subject: subscribe" to EVAC-mls-request@psiaz.com

EVAC-Board is for EVAC business. All club members are welcome to participate.
To join, send E-mail with the "Subject: subscribe" to EVAC-Board-request@psiaz.com

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-request@psiaz.com

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.

East Valley Astronomy Club

Membership Form

Please complete the information requested. Return at the next club meeting or to the address below, with a check made payable to EVAC for the appropriate amount due.
IMPORTANT: Please note that ALL memberships expire on December 31 of each year.

1. Check one of the following: ( ) New Member ( ) Renewal

2. Select appropriate dues options:

New Member select month joining:
( ) $20.00 January - March
( ) $15.00 April - June
( ) $10.00 July - September
( ) $ 5.00 October - December

Member Renewals *(current Members ONLY!)*
( ) $20.00 Annual Renewal (January - December)

Magazines: *Provide renewals notices with payment.*
( ) $29.00 Astronomy Magazine
( ) $30.00 Sky & Telescope

Name Badges
( ) $7.00 Each

Send To:
EVAC Treasurer
P.O. Box 2202
Mesa, Arizona 85214-2202

_____ **Total Enclosed**

3. Complete requested information below. Please Print.

Name: _____

Address: _____

_____

Phone #: _____ E-mail: _____

URL: _____

4. Newsletter delivery option: ( ) U.S. Mail ( ) E-mail

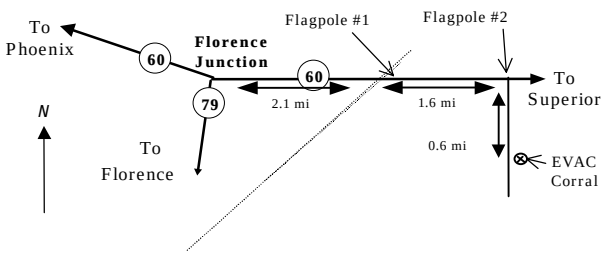
EVAC Star Parties

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 right before a gas-line sign.

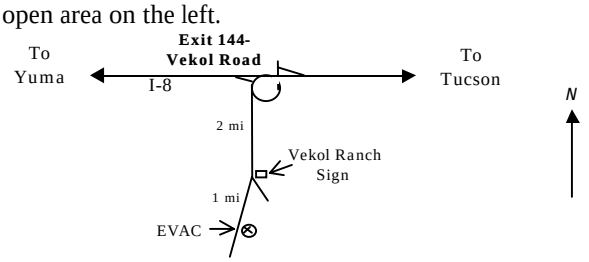


Deep Sky Star Party: Vekol Road Site

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.



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NEWSLETTER
Jim & Chris Kline

East Valley Astronomy Club—2001
Scottsdale, Arizona EVAC Homepage—http://www.eastvalleyastronomy.org/

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. (480) 947-4557Email: rgp14159@aol.com

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

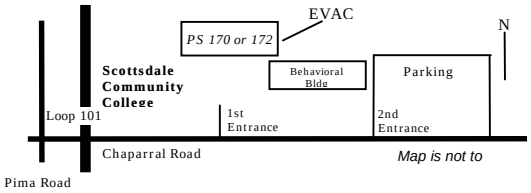
Address Changes: Contact Randy Peterson. PO Box 2202, Mesa, AZ. 85214-2202. (480) 947-4557. Email: rgp14159@aol.com.

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 & Chirs of your delivery your 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: Great savings through Kalmbach and Sky Publishing. Contact Randy Peterson, rgp14159@aol.com

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



East Valley Astronomy Club

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

Contents:

Reminder: Next EVAC Meeting Wednesday, April 11, 2001