

East Valley Astronomy Club

July 2002

www.eastvalleyastronomy.org

Scottsdale, Arizona

June 10th Annular Eclipse

By Randy Peterson, 2002 EVAC Treasurer

East Valley Astronomy Club set up scopes at two sites for the annular eclipse on June 10. At one site, the Riparian Preserve in Gilbert, we had 5 solar filtered scopes, a piece of welder's glass, one scope projecting an image of the sun through an eyepiece on a white surface held above the eyepiece, and one setup that projected an image of the sun through a "shadow-box" setup onto a "frosted-glass" surface at the rear of the device.

I estimate we had at least 400 people show up for the eclipse, thanks to an article in the Mesa Tribune advising people that we would be available to show it off. We actually exceeded the capacity of the parking lot, as cars were driving around and around looking for a place to park. We were very happy with the good turnout. Watching the moon cover the sun was good, but I think watching it cover the sun spots was more interesting! Thanks to Joe Goss and his wife, Dave Hertel, Win Pendleton and Dave Coshov for setting up your scopes for the public to look through, Frank Neuperger who brought the rear-surface projector, and for Silvio Jaconelli who showed up with a piece of welders glass. Besides my scope, I also brought a pair of "solar eclipse" glasses, made of solar film with a cardboard frame, and as they were being passed around, somebody decided they needed them worse than I did! I bought them 8 years ago for the annular eclipse through the southeast corner of the state, and this is the first time somebody at a "star party" (or sun party?)

See Solar Eclipse cont'd on Page 2

EVAC EVENTS CALENDAR - 2002							
<-- Members only -->							
	New Moon	Meeting	Local	Deep Sky	Gilbert	Other Events	Club Meeting Speaker
Jul	7/10	7/10	7/6	7/13	7/12		Unknown as of print date
Aug	8/8	8/14	8/3	8/10	8/9		Steve Coe (Deep Sky)
Sep	9/6	9/11	8/31	9/7	9/13		
Oct	10/6	10/9	9/28	10/5	10/11	All AZ Star Party 4 & 5	

NOTE : The Local and Deep Sky parties are for members and by invitation only.
 The public are welcome to attend the Gilbert Star Parties which are held at the Gilbert Library at Greenfield/Guadalupe, and which start at dusk on the dates shown.

Other events coming up:

Oct 4/5, All AZ Star Party.

Dec EVAC Holiday Party (Date undetermined)

has helped themselves to any of my astronomy stuff! Better a \$3 pair of solar glasses than a lot of other things it could have been!

Rick Merriman and Jeff Vandecar set up at the second site, Scottsdale Community College. They also had a great turnout, thanks to Channel 12 news announcing their location on the 10pm news the night before the eclipse. They estimated several hundred people looked through their two solar filtered scopes, including at least 4 classrooms of students, so they kept pretty busy!

I took some photos for the newspaper during the peak of the eclipse. Used their 200 speed film with my OM-1, and took exposures at 1/500, 1/250, 1/125, and 1/60, so tried to cover all the bases. The last set of eclipse pictures I took a couple years ago looked best at 1/250 of a second. The wind was gusting, which caused the image to shake a bit through the scope, but the paper did publish one of the pictures that worked the next day. Temperature was a little less than 100, which was pretty cool by June standards for the Phoenix area.

Randy Peterson
EVAC

If it's clear... **by Fulton Wright, Jr.** **Prescott Astronomy Club** **for July 2002**

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 Tuesday, July 2, about 4:45 AM, you can see two planets very close together. With your unaided eye or binoculars, look 7 degrees above the east-northeast horizon for Mercury (mag -0.5) and Saturn (mag 0) about 1/4 degree apart. This will be a difficult observation because the objects are so low.

On Tuesday, July 2, about 8:15 PM, you can see two other planets close to each other. With your unaided eye or binoculars, look 3 degrees above the west-northwest horizon for Jupiter (mag -2) and Mars (mag +2) less than a degree apart. They will also be close on the day before and after this date. This observation will also be difficult because the objects are even lower than the morning ones.

On Monday, July 8, about 4:45 AM, you can see a planet near the moon. With your unaided eye or binoculars look 10 degrees above the east-northeast horizon for the very thin crescent moon and Saturn, about 1 degree apart.

On Wednesday, July 10, about 8:45 PM, you can see a planet near a star. With your unaided eye, look 15 degrees above the west horizon for Venus (mag -4) and Regulus (mag 1.5) about 1 degree apart.

EVAC Meeting Minutes

by Tom Polakis, Secretary

President Martin Bonadio opened the meeting with solar observing tips. Howard Israel then mentioned his increased involvement with the Arizona Science Center. His work in planetarium programs is rewarding. They are always looking for other volunteers for the planetarium and public shows.

AJ Crayon presented certificates for those who participated in the Messier Marathon. Martin showed off members in print, who included Chris Schur, who had a photo of Saturn in S&T, and Randy Peterson, who was in the Mesa Tribune for the solar eclipse.

Member presentations began with two fine CCD images shown by Steve Aggas. Jim Gutman followed with a review of five binocular viewer units that he and others used at the dark site the previous weekend. Laurice Dee showed a video previewing NASA's CONTOUR mission, which will observe Comet Encke and Comet Schwassmann-Wachmann 3. Launch is scheduled for July 2002.

The main speaker was Sam Herchak, who spoke about the finer points of mirror making. These include the need to bevel the edge, how to make a tool, and working with pitch lap.

Tom Polakis
Tempe, AZ
Arizona Sky Pages <http://www.psi-az.com/polakis/>

Coming up in the next few months:

June 20: Use binoculars or a low power (less than 50x) telescope after sunset to see Venus next to the Beehive Cluster, about 0.4° apart. Look to the WNW.

July 1 and 2: 4:30 a.m. Look to the ENE, just above the horizon. Mercury and Saturn will be close together, with Mercury slightly brighter. On July 1, they will be about 1.5° apart, and on July 2, they will be less than 0.25° apart.

July 20 - 29, 2002: Saturn has a close encounter with the Crab Nebula (M1). Saturn will be at magnitude +0.1. (Note: Moon Phase = 0 means New Moon, 0.25 means First Quarter, 0.50 means Full Moon, etc.)

See Coming Up on Page 4

Date at 4am	Angle between Saturn & M1	Moon Phase	Angle between Moon & M1
July 20	0.55	0.353	161.36
July 21	0.43	0.386	173.91
July 22	0.30	0.420	168.51
July 23	0.18	0.454	154.56
July 24	0.06	0.488	140.51
July 25	0.06	0.522	126.94
July 26	0.18	0.556	114.04
July 27	0.30	0.590	101.81
July 28	0.42	0.624	90.16
July 29	0.54	0.657	78.89

The best time to see this will be July 23, 24 and 25, with the closest approach being July 24. This will be roughly Azimuth 72, Elevation 13. On July 24, the nearly-full Moon will be Azimuth 226, Elevation 16. Now, the Crab Nebula is 6 x 4 arc-minutes = 0.1 x 0.067 degrees. Look at July 24, where Saturn will be 0.06 degrees away. This means Saturn will go pretty close to, if not RIGHT THROUGH, the Crab Nebula!

December 30, 2002 - January 10, 2003: Saturn has another close encounter with the Crab Nebula (M1). Saturn will be at magnitude -0.4.

Date at 8pm	Angle between Saturn & M1	Moon Phase	Angle between Moon & M1	Moon Set
Dec 30	0.44	0.895	155.95	
Dec 31	0.36	0.929	169.46	
Jan 1	0.27	0.963	172.63	
Jan 2	0.19	0.996	158.48	
Jan 3	0.11	0.030	143.67	6:29 pm
Jan 4	0.03	0.064	129.43	7:34 pm
Jan 5	0.06	0.098	116.00	8:37 pm
Jan 6	0.13	0.132	103.42	9:37 pm
Jan 7	0.21	0.166	91.56	10:34 pm
Jan 8	0.29	0.200	80.21	11:31 pm
Jan 9	0.37	0.234	72.64	12:25 am
Jan 10	0.43	0.267	61.34	1:20 am

The best time to see this will be January 3, 4 and 5, with the closest approach being January 4. This will be roughly Azimuth 93, Elevation 48. On January 6, the crescent Moon will be Azimuth 239, Elevation 18. Now, the Crab Nebula is 6 x 4 arc-minutes = 0.1 x 0.067 degrees. Look at January 4, where Saturn will be 0.03 degrees away. This means Saturn will go pretty close to, if not RIGHT THROUGH, the Crab Nebula again!

MARK YOUR CALENDARS!
Jeff

BACKYARD ASTRONOMER

MMT Telescope Tour

By Bill Dellenges

[Http://sculptor.as.arizona.edu/foltz/www/mmt.html](http://sculptor.as.arizona.edu/foltz/www/mmt.html)

My wife, Lora, and I took this tour recently. Allow me to share our experience with you.

This trip was somewhat nostalgic for me because I had taken the tour around 1980 as part of the Astronomical Society of the Pacific's annual meeting in Tucson that year. I recall fondly, sitting behind the late Clyde Tombaugh (discoverer of Pluto in 1930) on the tour bus.

A little history on this facility: The Smithsonian Institution Astrophysical Observatory was established at Mount Hopkins Observatory in 1968. The unique Multiple Mirror Telescope (MMT) went into operation at the 2606 meter (8550') summit in 1979. It utilized six 72" mirrors which operated together for an effective aperture of 4.5 meters (177"). In 1981, the observatory's name was changed to the Fred L. Whipple Observatory. With the advent of Roger Angel's large spin cast mirrors at the University of Arizona, it was decided to replace this arrangement with one 6.5 meter (256") mirror. The MMT was shut down for two years during the modification. The new MMT 6.5 meter telescope was dedicated on May 20th, 2000. It has twice the light gathering power of the previous telescope with a field of view 20 times greater (400x more sky). For traditional reasons, it will continue to be known as the "MMT".

The new visitor's center is located about 10 miles east of I19, near Green Valley. This is about 35 miles south of Tucson, Arizona. The tour costs \$7 per person. It begins with a 30 minute video covering the history of the observatory, modification of the MMT, and the fabrication of spin cast mirrors. A bus can take 26 visitors up the 10 mile, narrow dirt road to the 2317 meter (7600') level in about 45 minutes. This is called the "Ridge", where most of the telescopes are located. We were taken inside the 1.5m (60") and 1.2m (48") telescope domes and shown the outside, exposed 10m (400") Gamma Ray Telescope - a pretty weird telescope. Looking sort of like a radio telescope, it's comprised of a couple hundred 2 foot mirrors. Looking into that maze of mirrors can be a bit disorienting! Since our atmosphere filters out gamma rays, it looks for "Cherenkov Radiation", secondary particles produced by the rays at

higher altitudes.

Lunch time! You are asked to provide and pack your own lunch on this tour. We were directed to a very pleasant picnic area with tables shaded by trees.

After the 45 minute lunch break, we were off to the summit to see the new MMT. I have to say that I think it would have been worth the 7 bucks just to be driven to this mountain top-the view is glorious. I could see the Kitt Peak domes 45 miles away to the northwest with the naked eye. With binoculars you can see Mount Lemmon Observatory 55 miles away to the north. To the east, Mount Wrightson (2882m, 9453') towers majestically above you, seemingly only a stone's throw away.

We were taken inside the square shaped "dome" of the MMT and up to the 4th floor where we were looking down on the scope. Our tour leader "John", an amiable and knowledgeable person, talked to us for about 30 minutes about this instrument. It was a bit chilly in all the air conditioned domes, so bring a jacket! By the way, once the current secondary is replaced with a forthcoming adaptive optics one, this telescope is expected to be a real killer- I forgot the specs but I think I recall it's suppose to be competitive with the Hubble.

After a most enchanting trip, we arrived back at the visitor's center about 3 p.m. I highly recommend this tour, it's a steal at \$7. (No children under 6 are permitted on the tour to the top of the mountain).

For Further info:

Phone: (520) 670-5707.

Address: F.L.W.O., 670 Mount Hopkins Road, Amado, AZ 85645.

Hours: 8:30 a.m.-4:30 p.m., Monday-Friday. Tours by reservations only on Monday, Wednesday, and Friday, mid March through November (or until it snows).

**EARTH/SPACE SCIENTIFIC
RESEARCH INSTITUTE, INC.*
Presents A Series Of Public Lectures**

By Flagstaff's Professional Scientists from Lowell Observatory, the U.S. Naval Observatory, the USGS, the Museum of Northern Arizona, and Northern Arizona University. Topics in Astronomy, Geology, Paleontology, Volcanology, Meteorology presented by local scientists for the non-professional science person's general knowledge and interest.

Lecture Series Speakers and Dates:

- July 25 - Phillip Massey, Lowell Astronomer (Galaxies) and David Brumbaugh, NAU (Director Arizona Earthquake Information Center) ;
Aug. 29 - Deidre Hunter, Lowell Astronomer (Dwarf Galaxies);
Sept. 26 - Diana Anderson, NAU (Atmospheric Science);
Oct. 31 - Ted Bowell, Lowell Astronomer (Asteroid Search);
Nov. 21 - John Spencer, Lowell Astronomer (Io Volcanoes);
Dec. 19 - Marc Buie, Lowell Astronomer (Pluto and Occultation's).

Others to be added as time permits.

PLACE: Continental Country Club, 2380 N. Oakmont Drive, Flagstaff

TIME: 7:00 - 8:30 PM

Free lectures to the public. Donations accepted. Children welcome. Come early to purchase dinner, drinks, and socialize in The Cafe.



For Sale

Must sell: Televue 101 with Ash Gibraltar Alt-Az mount; Televue sky-tour computer (digital setting circles and object database); JMI electric focuser, hard case, 1x quick-point finder, and an everbrite 2" diagonal. This scope is in like new condition and has super-excellent optics. At f5.4 and a 540mm focal length with a 4" aperture this scope affords rich fields and pin-point stars, yet has enough aperture to pick up galaxies and detail in the planets. It is an APO refractor design with 4-element special dispersion glass optics. I would like to offer it at \$2750 OBO.

Contact: Martin Bonadio:
mbonadio@cox.net or at 480-926-4900 for more information.

**A Discovery In Southeastern Arizona
Makes Safford The Place To Be For
Space, Science, History And Culture**

Arizona residents and visitors who want to learn more about the Southwest's past and future will want to visit Safford's Discovery Park – 200 acres of scientific, historical, cultural and hands-on exhibits – which will be open Friday and Saturday evenings beginning July 5.

The park – located south of Highway 70 on 20th Avenue in Safford in southeastern Arizona's Graham County – features the Gov Aker Observatory, the Nature's Hideaway Wildlife Habitat and the official visitors center of the Mount Graham International Observatory (MGIO).

The Gov Aker Observatory – named for Safford's former mayor – features a 20-inch reflecting telescope available for public use and the world's largest known camera obscura, the forerunner of today's photographic, video and digital cameras. In addition, the observatory houses the park's exhibit gallery – which highlights origins of the universe, the sun, sounds of space, history of astronomy and telescope making – the gift shop and educational facilities.

Also at Discovery Park, passengers can board the shuttlecraft POLARIS – a full-motion space simulator complete with six-channel Dolby® Surround Sound – from Discovery Park Base 121 for an exciting voyage through the solar system. POLARIS stops for refueling at the orbiting Discovery Space Station before heading through the universe, dodging ice or rock particles along the way.

MGIO is a division of Steward Observatory – the research arm for the Department of Astronomy at the University of Arizona – and is considered one of the best astronomical viewing areas in North America because sky conditions on Mount Graham are among the best in the world.

The observatory facility is home to the Vatican Advanced Technology Telescope – which is used by the Vatican Observatory Research Group and the University of Arizona – and the Heinrich Hertz Submillimeter Telescope

– which is used by all State of Arizona and German institutions and is made available on a limited basis to astronomers from other institutions. The facility also is the future home of the Large Binocular Telescope, which will be the world's most powerful optical telescope.

Tours leave every Saturday from the Graham County Chamber of Commerce – located at 1111 Thatcher Boulevard, on U.S. 70 at Firth Park in Safford. Guests must sign in by 9:30 a.m. for a 10 a.m. departure. The tours return to the Chamber at approximately 4:30 p.m. The fee of \$20 per person includes lunch and admission to Discovery Park.

For more information on Discovery Park, call (928) 428-6260 or visit the web site at www.discoverypark.com. For more information on Tours of the Mount Graham International Observatory or events, activities or accommodations in the area, contact the Graham County Chamber of Commerce at (928) 428-2511 or (888) 837-1841 or visit the web site at www.visitgrahamcounty.com

PRE-PUBLICATION ANNOUNCEMENT - NEW ASTRONOMY FIELDBOOK

"OBJECTS IN THE HEAVENS" is a new deep-sky fieldbook/notebook for amateur astronomers that contains descriptions and locations of 588 objects of all types, viewable with small scopes and binoculars. All object listings are magnitude 10 or brighter; 129 entries are specially highlighted for use with average binoculars. Generous space is provided for personal observation comments.

O*I*T*H provides many answers to: "What can I see and where is it?" by providing only those objects which are potentially viewable from the Northern Hemisphere, formatted to simplify finding these visual treats with 79 individual constellation and seasonal maps. Also featured are modern locations, available descriptions, extensive cross-referencing, meteor shower details, common names list and historic observational comments from TWWebb. The book's compact size makes it ideal for camping and hiking.

How to Order: Reserve your signed copy of O*I*T*H at a special Pre-Publication discount price of \$17.25, until July 15, 2002, only from the author, shipping to US addresses included. You'll save \$10.00+ per book off the retail price of \$27.99 each. Orders of 10 or more are only \$15.99 each. Please allow about 8 weeks for printing and shipping.

Send your check or money order to:

PeterB Publishing

PO Box 91943

Elk Grove, Illinois 60009-1943

Details:

84 pages, spiral-bound softcover, 5.5" x 8.5"

588 objects brighter than magnitude 10 listed;

186 objects brighter than magnitude 7 highlighted;

148 non-Messier or NGC objects, 28 of which are binocular-class;

129 binocular-class objects have separate symbol;

79 maps: constellational, seasonal, seasonal insets;

61 observable northern constellations, arranged alphabetically;

27 astronomy catalogs are included, expanded beyond M or NGC objects; plus common names list; plus modern Messier list of 110 objects; plus meteor shower dates and details; plus complete object number cross-reference and mapping.

O*I*T*H is being published through The Trafford Company <<http://www.Trafford.com>> and will be available from Amazon, Barnes&Nobel, Borders and other great booksellers. But then it'll be at full price :-)

REFRACTOR SHOOT-OUT

By Silvio Jaconelli

With the observing conditions becoming less tolerable with the high evening temperatures, now is the time to turn our attention to our equipment. Before I go any further, let me backtrack a couple of years...

One evening out a Florence Junction at one of our local star parties, I was set up close to a non-member called Jeff Quinn, a young and very personable astronomer who seemed to have a passion for the hobby. He was not a member of EVAC, and it was fun just chatting with him. We ran into each other on several subsequent star party nights, and it was interesting to hear the direction that he was with regard to his equipment choices - at that time he had a 10" Meade Reflector on a GEM - pretty good light grasp, but the images were not spectacular.

Fast forward to the present, and Jeff had by now acquired a 6" f/9 Meade Refractor; Jeff had mentioned to Rich Peters and a few other folks that he was pretty pleased with the images through the Meade, and the question came up as to how well would it stack up against a premium 6" refractor like an AP or a Takahashi. Well, since I have a 6" Takahashi, I was the designated Takahashi person for a 'shoot-out'!

So one Saturday evening in 100 degree June weather, Jeff brought his Meade over to my place for an informal and not-very-scientific comparison. It must be my old age, but I really enjoy unstructured and informal viewing sessions with no goals, timetables or agendas, and that was exactly how the evening went. So what is shown below is in no way meant to be a definitive test, but rather just an informal report of the impressions that we obtained that night.

Jeff's Meade is a 152 mm f/9 ED doublet with KF3 & FPL51 glass; it was mounted on a solid AP mount sitting on a homemade tripod designed and built by Jeff himself based on a music-stand concept. Jeff's total investment was below \$5,000. The TAK is a 152 mm FS fluorite doublet mounted on an EM 200 TAK mount with a total investment of over 5 figures (I'm embarrassed to any more specific than this!). The seeing was fair, and the location was my Gilbert back yard. So how did it work out ?

Well, the mount contest went to Jeff - his mount was solid, and took heavy eyepieces and binocular viewers in its stride with absolutely no problem. The AP mount was rock solid, and Jeff's homemade pier was impervious to any vibration. My TAK EM 200 had some slop in the DEC shaft earlier in the week, which contributed to what I consider to be an undermounted set-up - I feel that the 6" FS 152 is just a tad heavy for the EM200, so when I added a binocular viewer to an already unsteady DEC shaft, the damping times were in the 6 to 7 seconds range; I also have the tripod fitted with hard plastic casters that Jeff said was probably also contributing to the 'shakes' ! Texas Nautical will 'fix' the EM200 to make it more stable, but I have never got round to shipping it off to them, especially since Rick Scott did a great job eliminating the free play earlier; maybe I need Rick to give the mount another tune-up. But on the evening, Jeff's mount was better.

The first target we looked at was the Moon, and this was where the TAK showed what it's capabilities were. I was able to take the magnification up to over 600x with very little image breakdown, while the Meade was superb up to 400x before image breakdown occurred. Jeff also saw some lateral color in the Meade but not in the TAK (as for me, I saw no lateral color anywhere - old eyes, I guess!).

On double stars, the performance between the two telescopes was comparable - we were both

See ShootOut on Page 9

able to split 1 arc second doubles at around 500x (such as NU Scorpii). I would call this a tie. At this point, we both agreed that for the Moon and double stars, a large aperture refractor was probably the way to go - the images through most of the reflectors that we had both looked through over the years would have been hard pressed to beat the images that both our scopes were getting that evening. The star images were pinpoints, and Albireo was just beautiful.

Where our equipment fell down was on globular clusters and planetary nebulae - objects that do better under dark skies with larger aperture. From my Gilbert backyard, the Dumbbell Nebula, M4 (Scorpius Globular), the Ring Nebula (M57), and the Hercules Globular (M13) were certainly worth looking at, but my Spooner 8" reflector regularly show these objects far better - the result of approximately double the light grasp. I would also call this part of the comparison a tie.

My personal impressions? Firstly, I was surprised at how well the Meade did compared to the TAK. I do need to point out though that Jeff felt that he was fortunate in getting a Meade with probably a better than usual objective; and Jeff spent time throughout the evening continually fine tuning the collimation on the Meade - this is a tribute to Jeff's technical knowledge and skills that he was able to do this, and it resulted in him squeezing every last ounce of performance from his equipment. The TAK was more consistent, was less impacted by moments of poor seeing, and handled high magnification better. For a 'point and shoot' observer like myself, the TAK probably is more suitable, but for someone with Jeff's patience and technical skills, a lot of money can be saved by going the 'used equipment and adjust it' route with very little sacrifice in image quality.



Photo published with permission by Jeff Quinn.



Desert Sunset Star Party

May 1-4, 2003

At the Kartchner Cavern State Park, Benson AZ
Hosted by: Chart Markers and More
(Pat and Arleen Heimann)
And the Arizona State Park Department

Mark your calendars and watch our website for updates <http://chartmarker.tripod.com>

Currently looking for volunteers for

- Evening talks – ½ hour lectures
- Afternoon presentations – 15-20 minutes
- Afternoon demonstrations – (e.g. for beginners, how to culminate your scope)

Provide a written title and brief description and Email to chartmarker@cox.net

Deadline for submission, Sept. 30, 2002

Still For Sale

8'0" Observatory Dome with 32" slide shutter with all 4 vertical and 4 horizontal good size casters. Steel ring plate, four steel keepers holding horizontal casters. Can help move with trailer and will also sell trailer for \$200 firm. Sale price starts at \$800 payable only in cash. Please call ahead for information and directions.

Contact: Raul Phone # 480-515-4339

If no answer, call #602-526-9810



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
- \$25.00 October – December & next year

Membership Renewals:

- \$20.00 January – December

Name Badges:

- \$7.00 each

Name: _____

Magazines: if renewal, customer # _____

(New) (Renewal)

- \$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: _____

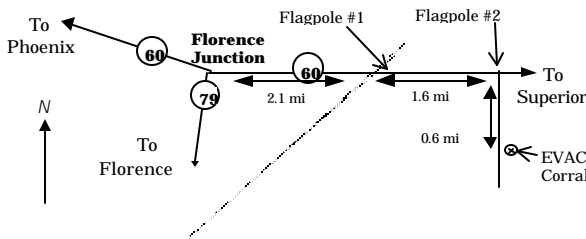
EVAC Star Parties

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.

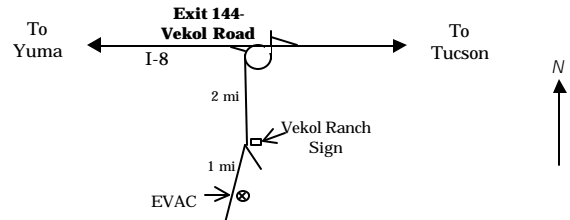


Deep Sky Star Party: Vekol Road Site

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**

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Silvio Jaconelli,
Coordinator
(480) 926-8529

East Valley Astronomy Club—2002 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. Email: rgpeterson@cox.net

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.

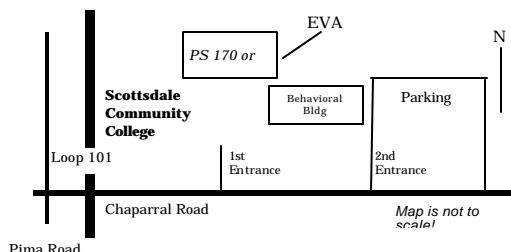
Address Changes: Contact Randy Peterson. Email: rgpeterson@cox.net or PO Box 2202, Mesa, AZ. 85214.

Newsletter: Contact Don Wrigley or Kathy Woodford, 423 W. 5th Ave, Apache Jct, AZ 85220. 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 send your contributions to Silvio Jaconelli SilvioJ@msn.com or Don Wrigley DJWrigley@earthlink.net. Contributions may be edited.

EVAC Library: The library contains a good assortment of books, downloaded imagery, and helpful guides. Contact Gary Finnie for complete details gfinnie@kam-az.com

Book Discounts: Kalmbach and Sky Publishing offer a 10% Discount to EVAC members on books and other items from their catalogs! When ordering, notify the person on the phone that you would like the "Club Discount." When ordering by mail, there is a line to subtract the 10% club discount.

EVAC Party Line: Let other members know in advance if you plan to attend a scheduled observing session. Contact Dave Coshow (480) 730-1132.



Deadline for the August Newsletter is July 26th



EVAC

PO Box 2202

Mesa, AZ 85214

Space is limited. Get your articles in early. May be edited for brevity.

Don Wrigley & Kathy Woodford, Co-Editors
Silvio Jaconelli, Coordinator
423 W 5th Ave, Apache Junction, AZ 85220

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, July 10, 2002