



East Valley Astronomy Club

January 2004

www.eastvalleyastronomy.org

Scottsdale, Arizona

January 2004



Contents

EVAC President. . . p.1

If it's Clear. p.2

Events Calendar. . p.3

Kitt Peak Obs p.4

Dec. Minutes. . . . p.4

Buy & Sell. p.5

Jason Nelson. . . . p.6

2004 Sky. p.7

Membership p.9

EVAC Officers . . p.10

From the Desk of the President by Peter Argenziano 2004 EVAC President

As we begin the new year, I'd like to take this opportunity to reflect on what has been and to look forward to what will be. This past year has been very successful for the club. Our membership has grown by double-digits and we are on firm financial footing. We have assumed control of our Internet presence, a first-class website by any standards. Our member and public star parties are well attended, as are our numerous outreach events.

I'd like to publicly acknowledge and thank the 2003 governing body for their determination and commitment to making EVAC the best club it can be. Please join me in bestowing a sincere 'Thank You' upon: Diana Jane, Tom Polakis, Stanley Bronstein, Howard Israel, John Matthews, Silvio Jaconelli, Gary Finnie, Marty Pieczonka, Jason Nelson, Dave Hertel, Brian Rhodes, Craig Dokken, Mort Hanlon, Jim Gutman, Dave Coshow and Randy Peterson!!

I would also like to extend my sincere appreciation to Dave Coshow for his continued support in hosting our monthly Beginner's Labs at his residence; and to Bill Dellinges and Dave Shafer for ensuring the gate is opened on time for our Local Star Parties. Thanks also to Jim Gutman for assuming the responsibilities of refreshments and A/V coordinator for the last half of the year. Thanks also to Tom and Jennifer for hosting the 2003 Holiday party!

I will take this opportunity to formally introduce the 2004 EVAC governing body:

- President: Peter Argenziano president@eastvalleyastronomy.org
- Vice President: Martin Bonadio mbonadio@cox.net
- Treasurer: Jack McEnroe keystoneconsulting@earthlink.net
- Secretary: Diane Cook dcookx2@hotmail.com
- Events Coordinator: Howard Israel events@eastvalleyastronomy.org
- Newsletter Editor: John Matthews john-cathy@cox.net
- Properties Director: Dave Williams davewilliams@cox.net
- Webmaster: Marty Pieczonka martyp@sybase.com
- Photographer: Jason Nelson photobyjason@cox.net
- Board Member: Joe Goss apachejo@cox.net
- Board Member: Mort Hanlon hanlonm1@wellsfargo.com
- Board Member: Jim Gutman jim@jgg.net
- Board Member: Tom Polakis tpolakis@cox.net
- Board Member: Dave Shafer david.g.shafer@worldnet.att.net

In the final Board meeting of 2003, the following topics were discussed and voted upon:

Our bylaws were modified to exempt some positions from term limits. The executive officers (President, Vice President, Secretary and Treasurer) as well as the five seats on the Board of Directors will retain the current term limits. Each of these positions carries a one-year commitment, with a maximum of two consecutive terms in the same office. All other positions (Events Coordinator, Newsletter Editor, Properties Director, Webmaster and Photographer) no longer have limits. Each position is still elected annually, but an individual may serve in that capacity for any number of consecutive terms.

Our new Properties Director, Dave Williams, is putting the finishing touches on the official list of equipment that is available for loan to members. Once finished, this list will be publicized in print and on our website, along with the process for borrowing an item. Dave has

me that the loan period will be one month, with the meeting serving as the check-in / check-out location.

We will continue to meet in room PS-172 (on the campus of Scottsdale Community College) on the second Wednesday of each month, at 7:30 PM. However, I have it on good authority that we will probably have at least one special meeting in the planetarium at Arizona Science Center or the auditorium at SCC.

Our monthly Local Star Party site will remain at Boyce Thompson Arboretum State Park, and the Deep Sky Star Party site will remain at Vekol Road.

This month's meeting will feature a talk on the current status of Mars exploration activities. Our guest speaker will be Dr. David Williams, Faculty Research Associate with the ASU Planetary Geology Group. As of this writing the Beagle II has landed, but has not begun transmitting data. The Mars Exploration Rover (MER) Spirit is scheduled to land in Gusev Crater on January 4th, followed three weeks later by Opportunity, which will land on a level plain called Meridiani Planum on the opposite side of Mars from Gusev. With any luck Dr. Williams will be able to share with us some preliminary data received from Spirit.

EVAC has always had a strong public outreach dimension, and the coming year should see this trend continue. I have been selected to serve as a Solar System Ambassador for the Jet Propulsion Laboratory (JPL). The Solar System Ambassadors Program is a public outreach program designed to work with motivated volunteers across the nation. These volunteers communicate the excitement of JPL's space exploration missions

and information about recent discoveries to people in their local communities. The Solar System Ambassadors Program builds on and expands the outstanding efforts undertaken by the Galileo mission since 1997. Because of the success of the original Galileo Ambassadors program, JPL missions exploring Jupiter, Saturn, Mars, Asteroids, Comets, Earth, the Sun and the Universe now come together to expand the program's scope to the Solar System and beyond.

Details on the first scheduled event, a Saturn Watch, will be announced shortly. This event will combine a public observing session of the ringed planet with an overview and status update on the Cassini-Huygens Mission. Stay tuned...

EVAC has applied for JPL's Night Sky Network program. Howard Israel has volunteered to serve as our coordinator. The Night Sky Network (NSN) is a nationwide coalition of amateur astronomy clubs bringing the science, technology and inspiration of NASA's missions to the general public. We share our time and telescopes to provide a unique astronomy experience at science museums, observatories, classrooms, and under the real night sky. Complete details on the NSN program can be found here: <http://nightsky.jpl.nasa.gov/index.cfm>

The upcoming year promises to be a great one for the club. There will be lots of activities in which to participate. I urge everyone, regardless of your experience level, to get involved. This is your club and it is only as good as you make it!

Keep looking up!

**If it's clear...
by
Fulton Wright, Jr.
Prescott Astronomy Club
for January 2004**

Shamelessly stolen information from Sky & Telescope magazine, Astronomy magazine, and anywhere else I can find info.

When gauging distances, remember that the Moon is 1/2 a degree or 30 arc minutes in diameter. All times are Mountain Standard Time unless otherwise noted.

On Tuesday, January 6, after 6:00 PM, you can see the Moon and Saturn near each other. With your unaided eye look low in the east for the full Moon. Saturn is 4 degrees to the right.

On Monday, January 12, about 7:00 AM, you can see Mercury. With binoculars look 10 degrees above the southeast horizon for the magnitude 0 planet. Mercury should be visible for a week before and 10 days after this date.

On Monday, January 12, after 10:30 PM, you can see a number of events with Jupiter's moons. The first 3 events happen within 20 minutes. Here is the schedule:

- 10:04 PM Jupiter rises in the east.
- 10:38 PM Io appears from behind Jupiter.
- 10:53 PM Callisto disappears behind Jupiter.
- 10:54 PM Ganymede emerges from Jupiter's shadow.
- 11:39 PM Ganymede disappears behind Jupiter.
- 1:42 AM Callisto appears from behind Jupiter.
- 2:58 AM Ganymede appears from behind Jupiter.

On Wednesday, January 14, about 6:30 PM, you can see Venus and Uranus close together. With a small (3 inch) telescope look 20 degrees above the southwest horizon for Venus (mag 4). Less than 1 degree up and to the right is Uranus (10 magnitudes dimmer!) This won't be an easy observation with that difference in brightness. Don't be fooled by the star (about the same brightness) to the right of Uranus.

On Saturday, January 24, about 7:00 PM, you can see the Moon and Venus near each other. With your unaided eye look 20 degrees above the southwest horizon for the thin crescent Moon on the left and bright Venus on the right.



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Schedule of Events - January, February & March
East Valley Astronomy Club
by
Howard Israel

Date	Event	Location	Notes
		January 2004 Events	
Sat. Jan. 4	Quadrantid Meteors		Before dawn
Fri. Jan. 9	Public Star Party	Gilbert Library	7:00 PM, Setup
Sat. Jan. 10	Beginners Lab	Dave Coshows' home	7:00 PM, Setup
Thu. Jan. 15	Zaharis Elementary School	9410 E. McKillips Rd.	6:00 - 8:00 PM Volunteers needed
Wed. Jan. 14	General Meeting	SCC - PS 172	7:30 PM, Dr. David Williams, Current Mars Exploration
Sat. Jan. 17	Local Star party	Boyce Thompson Arboretum	Sunset: 5:45 PM
Sat. Jan. 24	Deep Sky Star Party	Vekol Road Site	Sunset: 5:52 PM
		February Events	
Sat. Feb. 7	Adopt-A-Highway Clean-up	Florence Junction	8:00 AM Usual meeting place
Sat. Feb. 7	Beginners Lab	Dave Coshows' home	7:00 PM, Setup
Wed. Feb. 11	General Meeting	SCC - PS 172	7 :30 PM, Fr. Bill Stoeger, Cosmology, Multiverse
Fri. Feb. 13	Public Star Party	Gilbert Library	7:00 PM, Setup
Sat. Feb. 21	Deep Sky Star Party	Vekol Road Site	Sunset: 6:18 PM
Sat. Feb. 28	Local Star Party	Boyce Thompson Arboretum	Sunset: 6:24 PM
		March Events	
Wed. Mar. 10	General Meeting	SCC-PS 172	Fr. Chris Corbally, Know Thy Neighbors - Nearby Stars
Fri. Mar. 12	Public Star Party	Gilbert Library	7:00 PM, Setup
Sat. Mar. 13	Beginners Lab	Dave Coshows' home	7:00 PM, Setup
Sat. Mar. 13	Local Star Party	Boyce Thompson Arboretum	Sunset: 6:35 PM
Sat. Mar. 20	Messier Marathon	Farnsworth Ranch, Arizona City	Sunset: 6:40 PM
Sat. Mar. 27	Steward Mirror Lab Tour	U of A, Tucson	Tentative

Kitt Peak Observing Program

by
Bill Dellinges (11/03)

On November 18th, 2003, I finally got around to checking out the "early" evening public observing program offered at Kitt Peak Observatory. This is the session that runs from sunset to about 9 - 10pm and costs \$36 per person (\$31 for seniors over 55). Also offered is the "Advanced Observing Program" for more experienced persons willing to pay \$350 plus \$55 for an overnight room and meal. The advanced session starts after the early program and runs to dawn. A telescope operator is provided; that person will point the telescope to anything you want all night for visual or CCD work (for more on this program, see Tom Polakis' article in Astronomy, July 1997).

We were asked to arrive at 4:45pm at the Visitor's Center (V.C), given an introduction to the evening's festivities and a generous box lunch (a vegetarian sandwich is available). Chuck Dugan, an affable, knowledgeable amateur astronomer led us outside to watch sunset at 5:30pm and gave us a look at the SARA 0.9 meter remote operated telescope (one of about 23 telescopes on the peak). Normally, about 35 people are booked for these sessions and are split into two groups: half use the RC Optical 20" Ritchey-Chretien in the 20' dome adjacent to the V.C. The other group use the Meade LX200 16", which was moved from the 20' dome recently and relocated in an 18' dome next to the WIYN 3.5 meter telescope. This is a considerable distance from the V.C.

Tonight would be different. Because there were only 23 of us and it was cold, Chuck suggested we stay close to the heat of the V.C., split into two groups and rotate turns in the dome. "Jace" remained in the dome as telescope operator, explaining the nature and significance of the objects we were viewing. Chuck gave a constellation lesson outside using planispheres, loaned binoculars, and his laser pointer. During our second break from scope viewing, he gave a talk inside on just about everything pertaining to astronomy and the facility.

During two sessions in the dome, Jace, using a full line of Naglers, gave us looks at Mars, M15, 31, 57, 27, Albireo, Epsilon Lyrae, NGC 253, and Encke's Comet. I was impressed with the telescope's performance. E. Lyr was split cleanly with small sharp star images. NGC 253 was a huge bright "cigar". I could see the

14th magnitude central star in M27.

This 20" is made by RC Optical Systems -- see web site: (www.rcopticalsystems.com), and costs \$45,000. It's an F/8.1, 4115mm focal length (eff. F.l.) truss instrument beautifully machined. It's amazingly small for its aperture and could probably fit in a modest sized amateur's observatory -- I want this telescope! I can't have this telescope! A review of their 12" can be found in the December 2002 issue of Astronomy, p.80. It sits on a Paramount GOTO mount (\$10,000...cha-ching!).

I had wondered what the night sky might be like at Kitt Peak (el. 6800'). It seemed to me to be about on par with the Grand Canyon, Sunglow Ranch, or Jack Newton's Portal, AZ location. But here, there was a nasty light dome from Phoenix in the north, rising perhaps 15 degrees. An equally sized light dome from Tucson rose in the east. I neglected to check the south for a light dome from Nogales, something that's a problem for the Green Valley, MMT, and Patagonia areas.

The session came to an end around 9:30pm. We were then led about half a mile down the summit road with only our parking lights on. Opaque paper and tape are available for cars with lights on other than parking lights. You can then turn your headlights on. Watch out for skunks on the road.

Interesting note: Chuck pointed out a private observatory on the peak and told us the owner paid Kitt Peak \$5 million dollars for a ten year lease there. Cool, eh? I have since learned the gentleman's name is Eagar O. Smith. For more on this interesting man, see page 262 in Timothy Ferris' book, "Seeing in the Dark".

I enjoyed this program even though it's really designed for the beginner. I see it as a modestly priced fun class and introduction to Kitt Peak after dark and look forward to taking the Advanced Program in the future.

An unrelated thought from the past:

"Matter tells spacetime how to curve, and curved spacetime tells matter how to behave."

Dr. William Kaufmann.

EVAC Meeting Minutes

December 10, 2003

by Tom Polakis, Secretary

President Peter Argenziano opened the meeting by having guests introduce themselves. Stanley Bronstein followed with the Treasurer's report. He is requesting the members renew their memberships.

Dave Williams will be the new Properties director. In coming months he will be organizing EVAC's properties, which include a loaner telescope and the library.

Tom Polakis gave a member presentation about simple astrophotography with a digital SLR camera. The camera enables the use of removable lenses and long exposures.

The main speaker for the evening was Michael Schwartz of Tenagra Observatories.

Beginning in Oregon with a C14 on a Paramount in 1997,

Schwartz promptly discovered three supernovae in three weeks. He has since moved to a site near Patagonia, Arizona, and continues his supernova search work with a robotic 32-inch telescope. The telescope is also used for asteroid work and is leased to professional institutions.

January Classified Ads.

Free Classified Ads (Wanted & For Sale)

Noncommercial advertisements for Astronomical equipment, books, computers, or software — Wanted or For Sale — will be accepted from current EVAC members.

Ads will be run on a “space available basis” and may be edited slightly to best fit the space. Ads should consist of a brief text description and must include a current member name and an evening phone number. You may include your email address if you wish. Ads will be run until canceled or until they have appeared in three issues of the newsletter (whichever occurs first). Ads will be “tagged” with the first issue in which they appear.

Ads can be emailed to: john-cathy@cox.net
(this address may change in the future)
or send by U.S. Mail to:

EVAC PO Box 2202
Mesa, AZ 85214

Please mark the subject line of the email or the envelope, “EVAC Newsletter Ad.”

For Sale (January)

Dinkmeier Binoviewer with 3 pr. Plossls, 15mm,25mm,32mm.
\$500

Harold Godley 480-985-0009
harold.godley@gte.net

For Sale (January)

I have the following
telescope/accessories set for sale:

11" Celestron Nexstar GPS w/XLT coatings, bought 9/2003.
Need to sell quickly due to emergency family medical problems.

\$3500 price includes scope w/ tripod, still under warranty, plus these extras:

In a locking padded custom aluminum-sided Case:

Celestron anti-vibration pads
2" Meade Super Plossl 56mm
TeleVue Big Barlow 2" 2X
TeleView Panoptic 2" 35mm
Celestron 1.25" 4-pc. Filter set #94118
Celestron 1.25" Filter #94118-05(#21)
Celestron 1.25" Filter 94118-03(#12)
Meade 1.25" Nebular O-III Filter #908
1.25" Contrast Booster Filter #2458360
Meade 1.25" 8mm-24mm Zoom
Celestron 1.25" 2X Barlow
Meade 1.25" Variable Polarizing System
Celestron 1.25" E-Lux 40mm Plossl
Celestron 1.25" 35mm Ultima
Set of five Celestron X-Cel 1.25 eyepieces:
2.3mm, 5mm, 8mm, 12.5mm, & 10mm
Meade Electronic 1.25/2" Focuser
Meade Focal Reducer
Meade computer USB-PC Serial port adapter
custom made adapter for Mac i-Sight FireWire webcam
(includes i-Sight webcam).

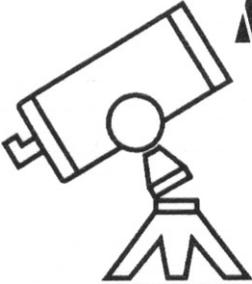
In another Celestron locking padded aluminum-sided case:

Celestron 5-pc 1.25 Plossl eyepieces
(4mm, 6mm, 9mm, 15mm, 32mm)
2x1.25" Barlow, and 7-piece filter set.
(this is the add-on set you got for
\$99 when purchasing the above scope)

I won't separate or dicker on the price...any of you who know, this is a smokin' deal for this amount of eyepieces, accessories, and the most desirable telescope on the market. It all cost me much more than the asking price. The 1st person with \$3500 cash/check takes it all

Please call Zach Hilgers
@ 480-980-0717 to get any more info

or email me:
noblehousefunding@cox.net
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A page in our book of memories is gently turned today.

On the morning of January 1, 2004, Jason B. Nelson passed away. He suffered an asthma attack on Christmas Day, causing him to slip into a coma from which he would not recover. Like the mythical Phoenix, his spirit has risen and lives on through his ultimate generosity. The donation of his kidneys, corneas and heart valves brings life to others who desperately needed such a miracle. We all join in his family's grieving, but we also celebrate his life and will hold his memories dear.

Jason, a native Arizonan, was born in Mesa on October 2, and was part of the first graduating class from Mountain View High School in 1978. In addition to his family, his loves included scuba diving, astronomy, computers, and photography. Jason had been a photographer since the age of 10 when his grandfather gave him a camera for Christmas and his parents gave him a black & white lab kit. He attended college, majoring in computer sciences, but decided that this was not his calling. With \$500 in his pocket and a great amount of determination he started *Photography by Jason*, the business that would be his livelihood for 17 years.

In addition to being a devoted husband and father, Jason had a tremendous love for all the sciences and was passing on that passion to each of his daughters. He was active with professional photography associations in the Valley, headed the Arizona Earth / Space Research Club, and was an active member, and club photographer, of East Valley Astronomy Club.

Jason is survived by his wife Tami; daughters Morgan, Rachel, Nicolette and Sarah; sisters Jennifer Higby of Mesa; Julie Connolly of Albuquerque; loving family and many friends.

He has gone across the river,
To the shore of evergreen,
And we long to see his dear face,
But the river flows between;
Someday, sometime we shall see
The face we loved so well,
Someday we'll clasp his hand,
And never say farewell.

2004: A Year of Sky Events

by Joe Orman

Photo Pages: <http://pages.prodigy.net/pam.orman/JoeHome.html>

Mark your calendar for these interesting alignments, conjunctions, occultations, eclipses & meteor showers in the year 2004. Times are calculated for Phoenix, Arizona; other locations may differ. Most will be easy to see with the unaided eye, some very challenging -- take a look! Constructive comments and corrections welcome. This list may be copied and distributed for non-commercial use, but it must be credited to Joe Orman.

- **January 18** (morning): Bright star Antares (magnitude 1.1) 3 degrees to right of crescent Moon, in SE before sunrise.
- **January 19** (morning): Mercury 8 degrees to left of crescent Moon, low in SE before sunrise.
- **January 27** (evening): Mars 3 degrees to upper right of crescent Moon, high in WSW after sunset.
- **January 24** (evening): Venus 5 degrees to lower right of crescent Moon, in WSW after sunset.
- **February 9 - 10** (night): Gibbous Moon occults magnitude 2.8 star gamma Virginis (disappears behind bright side 12:25 a.m. MST, reappears from dark side 1:24 a.m.), high in SE.
- **February 23** (evening): Venus 4 degrees to lower right of crescent Moon, in W after sunset.
- **February 25** (evening): Mars 1 degree to upper right of crescent Moon, high in W after sunset.
- **March 7** (evening): Full Moon rises almost straight east in twilight (sunset 6:30 p.m. MST, moonrise 7:32 p.m., Moon 3 degrees up straight east at 7:51 p.m.).
- **March 11 - 12** (night): Gibbous Moon occults magnitude 2.3 star delta Scorpii (disappears behind bright side 12:32 a.m. MST, reappears from dark side 1:11 a.m.), low in SE.
- **March 19**: Spring equinox (11:49 p.m. MST). Sunset straight west March 19 (6:39 p.m., azimuth 270.4 degrees), sunrise straight east March 20 (6:31 a.m., azimuth 89.3 degrees). Always use proper eye protection when viewing the sun.
- **March 24** (evening): Venus 3 degrees to lower right of crescent Moon, in W after sunset.
- **March 25** (evening): Mars 1 degree to lower left of crescent Moon, high in W after sunset (occultation for northern North America Iceland).
- **April 2** (evening): Venus in Pleiades star cluster, in W after sunset (Mars to upper left).
- **April 23** (evening): Crescent Moon, Mars and Venus make triangle within 8 degrees, in W after sunset (Mars to upper left of Venus mid-April through mid-May).
- **April 23**: Comet C/2002 T7 (LINEAR) perihelion (closest to Sun). Closest to Earth May 19. Best viewing in morning twilight late April, in evening late May.
- **May 6**: Comet C/2001 Q4 (NEAT) closest to Earth. Perihelion (closest to Sun) May 15. Best viewing early May through late May
- **May 20** (evening): Venus 5 degrees to upper left of thin crescent Moon, very low in WNW after sunset (occultation in Europe, Africa, Asia), Mars and Saturn to upper left. Venus 5 degrees to lower right of crescent Moon on May 21.
- **May 22 - 26** (evenings): Mars less than 2 degrees to right or upper right of Saturn, in W after sunset. Venus to lower right.
- **June 8** (daytime): Venus transits sun (visible in Atlantic Ocean regions only; not visible from Western North America). Always use proper eye protection when viewing the sun.
- **June 30 - July 8** (mornings): Bright star Aldebaran (magnitude 1.1) is less than 1 1/2 degree to lower right or right of Venus, low in ENE before sunrise.
- **July 10** (evening): Mercury (magnitude -0.2) 1/4 degrees above Mars (magnitude 1.8), very low in WNW after sunset.
- **July 20** (evening): Jupiter 7 degrees to left of crescent Moon, low in W after sunset. Mercury to lower right.

- **July 24** (evening): Bright star Regulus (magnitude 1.3) 1 degree to upper right of Mercury (magnitude 0.4), very low in W after sunset.
- **August 12 - 13** (night): Perseids meteor shower. Crescent Moon rising after 3 a.m. will only interfere slightly. Shower radiates from constellation Perseus, which rises in NE about 10 p.m.. Best time to look between midnight and dawn. Typical rate 50 to 100 meteors per hour.
- **August 17** (evening): Jupiter 3 degrees to left of thin crescent Moon, very low in W after sunset.
- **August 31 - September 2** (mornings): Saturn 2 degrees to the upper left of Venus, in E before sunrise.
- **September 10** (morning): Bright star Regulus (magnitude 1.3) 1/3 degree to upper right of Mercury (magnitude -0.4), low in E before sunrise.
- **September 22**: Fall equinox (9:30 a.m. MST). Sunrise straight east (6:17 a.m., azimuth 89.4 degrees), sunset straight west (6:24 p.m., azimuth 270.3 degrees). Always use proper eye protection when viewing the sun.
- **September 28** (morning): Full Moon sets straight west at sunrise (sunrise 6:21 a.m. MST, moonset 6:23 a.m.).
- **October 3** (morning): Bright star Regulus (magnitude 1.3) 1/4 degree to the lower left of Venus, in E before sunrise.
- **October 27** (evening): Total Lunar Eclipse, in E (moonrise at 5:33 p.m. MST, partial phase starts 6:16 p.m., totality from 7:25 p.m. to 8:43 p.m.).
- **November 4** (morning): Jupiter 1/2 degree to lower right of Venus (3/4 degree to the right of Venus on November 5), in E before sunrise.
- **November 5 - 6** (night): Last-quarter Moon occults magnitude 3.5 star eta Leonis (disappears behind bright side 2:09 a.m. MST, reappears from dark side 2:38 a.m.), in E.
- **November 9** (morning): Jupiter 1 degree to lower right of crescent Moon, Venus and Mars below, in ESE before sunrise (Moon occults Jupiter in northern and eastern North America).
- **November 10** (morning): Vertical alignment within 20 degrees: Jupiter, Venus, thin crescent Moon, and Mars, in ESE before sunrise (Moon occults Venus in Asia and Australia November 10, Mars in Africa and Australia November 11).
- **November 17 - 18** (night): Leonids meteor shower. First quarter Moon setting about 11 p.m. will not interfere. Shower radiates from constellation Leo, which rises in E about midnight. Best time to look between midnight and dawn. Typical rate 20 meteors per hour, some years much higher.
- **December 5 - 6** (mornings): Mars 1 1/4 degrees to lower right of Venus, low in ESE before sunrise.
- **December 7** (morning): Jupiter 1 1/2 degrees to upper right of crescent Moon, high in SE before sunrise (occultation for much of North America).
- **December 9** (morning): Venus 8 degrees to lower left of crescent Moon, Mars between them, low in ESE before sunrise.
- **December 13 - 14** (night): Geminids meteor shower. Crescent Moon setting about 7 p.m. will not interfere. Shower radiates from Castor in constellation Gemini, which rises in NE around 7 p.m. and is near zenith in early morning hours. Best time to look between 9 p.m. and dawn. Typical rate 60 meteors per hour.
- **December 27 - 31** (mornings): Mercury less than 1 1/2 degrees to the upper left of Venus, very low in ESE before sunrise.

A newsletter without words and pictures is like a sky without stars, galaxies or planets. And Bill and Peter can't write it all!

For 2004, I encourage all of you to contribute an article, a picture, a drawing, a bit of club news or "astro humor" -- short or long -- doesn't matter -- I'll fit it into YOUR newsletter.

John Matthews
EVAC newsletter editor

East Valley Astronomy Club Membership Form

Please complete this form and return it 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
- \$33.00 /yr Sky & Telescope

Newsletter delivery option, check one:

- Email (saves club printing & postage) U.S. Mail

Total enclosed \$

Name: _____

Address: _____

Phone # () _____

Email: _____

URL: _____

Local Star Party Sites

1: Florence Junction Site

General Information: The Florence Junction site is one of the two official sites for the East Valley Astronomy Club's Local Star Parties, 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. EVAC's Land Use Permit #26-104528 applies to this site.

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

2: Boyce Thompson Arboretum Site

General Information: The Boyce Thompson site is still considered the new local site. Only a few Star Party have taken place there as a second local site, although EVAC members have held Star Parties there at the request of the Arboretum on a twice yearly basis. The site has some privacy advantages over the FJ site.

Location: N 33° 16' 52" W 111° 09' 35"

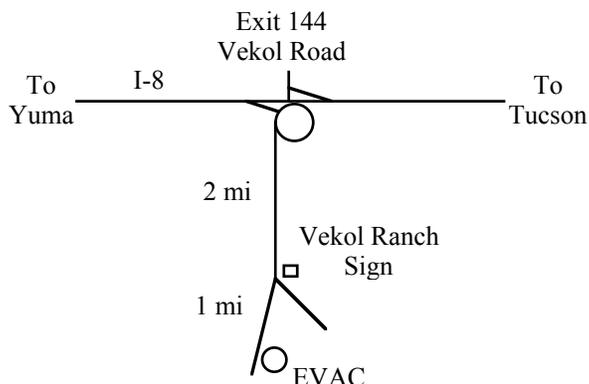
How to get there: Drive East on US 60 past Florence Junction for both sites. About 3.7 miles East of Florence Junction (after crossing railroad tracks) you will see a (second) flagpole on your right. Turning right (South) here and following the dirt road for 0.6 miles you will reach the FJ #1 site (marked by an old corral on your left). Continuing past the flagpole turn-off on US 60 and over Gonzales Pass will bring you to the Boyce Thompson Arboretum just before you enter the town of Superior. The Arboretum is marked with a large brown and white State Park Sign and there is a right turn lane.

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 90 minutes 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 small road (now paved) 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

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East Valley Astronomy Club

EVAC Homepage: <http://www.eastvalleyastronomy.org/>

Membership & Subscriptions: \$20 per year, renewed in December. Reduced rates to *Sky & Telescope* and *Astronomy* available. Contact the Treasurer:
Jack McEnroe at: keystoneconsulting@earthlink.net

Address Changes: Contact: Jack McEnroe. PO Box 2202 Mesa AZ 85214-2202

Club Meetings: Second Wednesday of every month at the Scottsdale Community College, 7:30 p.m. Meet in Room PS 172 (Physical Science Bldg.).

Newsletter: Email John Matthews at: john-cathy@cox.net The newsletter is mailed out the week before the monthly Club meeting. An electronic version is available in Adobe PDF format in lieu of the printed copy. Please send your contributions to John Matthews at: john-cathy@cox.net Contributions may be edited.

EVAC Library: The library contains a good assortment of books, downloaded imagery, and helpful guides. Contact Dave Williams at: davewilliams@cox.net
Book Discounts: Kalmbach and Sky Publishing offer a 10% discount to EVAC members on books and other items from their catalog. 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 club 10%.

EVAC Star Party Line: Let other members know in advance if you plan to attend a scheduled observing session. Contact Events Coordinator Howard Israel at (480 893 7523).



**East Valley
Astronomy Club**

**EVAC
PO Box 2202
Mesa, AZ 85214**

**EVAC Homepage:
www.eastvalleyastronomy.org**

Reminders:

January EVAC Meeting Wednesday, Jan. 14, 2004

Location: Room PS - 172
Physical Science, (SCC) @ 7:30PM

February EVAC Meeting Wednesday, Feb. 11, 2004

Location: Room PS - 172
Physical Science, (SCC) @ 7:30PM