East Valley Astronomy Club

May 2004 www.eastvalleyastronomy.org Scottsdale, Arizona

May 2004

Contents

EVAC President. . p.1

If it's Clear. p.2

Constellations . . . p.3

Astro Dates. p.4

Buy & Sell. p.5

EVAC Events p.6

Last Month. p.7

May Speaker. p.7

Your Tips p.8

A Reminder. p.8

Membership p.9

EVAC Officers . . p.10

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

Hopefully everyone knows by now that our May general meeting has a new starting time: 8:30 PM.

This change was necessitated by a final exam scheduling conflict at SCC. Our normal meeting room (PS-172) is being used for an exam from 6:00 to 8:15, so we should be able to get started at 8:30. Another room was not available on the 12th, so we decided to just have a later start. Martin worked hard to schedule this month's guest speaker, so we didn't want to reschedule the date or cancel the meeting altogether. The speaker will be Dr. Michelle Minitti, Faculty Research Associate in the ASU Center for Meteorite Studies. Dr. Minitti will discuss the Mars Exploration Rover (MER) mission, and the science results being obtained.
Due to the current circumstances, the meeting format will be changed for May. We will begin with our guest speaker. If time allows we will conduct regular club business later. Unfortunately there will be no member presentations in May.

Speaking of meetings and guest speakers, I would like to extend an invitation for you to participate in the speaker selection process. Do you have an idea for an interesting speaker for an upcoming meeting? We currently have the months of August, September and December open. If you know of someone who would like to speak to our club please contact either Martin Bonadio or myself.

Since I will not get the opportunity to announce club recognition at the May meeting, I will do so in this article.

- Jon Christensen had a photo of M42, the Great Orion Nebula, published on April 25 in the ATWB Image of the Day. The photo appeared on both the Anacortes and Astromart web sites.
- Chris Schur had a photo of the galaxy M81 published on page 20 of the May issue of Astronomy magazine.
- Tom Polakis' article on Robotic Observing was published in the May issue of Astronomy (page 80).
- Joe Orman had a photo of Meteor Crater published in the April/May issue of Air & Space – Smithsonian magazine.
- Tom Polakis had a photo of Comet Bradfield published on the Astronomy.com website.

In keeping with the Mars theme of the May meeting, I would like to draw your attention to an interesting software package called Maestro. Maestro is a free version of the tool used by scientists to plan daily activities for the Mars Exploration Rover mission, albeit with a simplified menu of commands. With Maestro you can view pictures taken by the rover or select driving destinations and points of interest where you want to take your own pictures.

Versions of Maestro are available for Windows, Mac, Solaris and Linux. The Windows version is almost 40 MB, so a broadband connection is recommended. Maestro comes with data from the JPL In-Situ Instrument Laboratory testbed. After you install Maestro you should download the Mars data updates, which contain images acquired by the rovers on Mars. To get the software, the data updates, tutorials, help files or just information, visit the Maestro Headquarters website at: http://mars.telascience.org/home

contd. on p.2

contd. from p.1

The original plan was for a 90-sol primary MER mission, but as you no doubt already know, this timeframe was greatly extended. Nine Opportunity and eleven Spirit data sets for Maestro were made available between February 2 and April 16. It was then announced that since the primary mission was concluding that the data set distribution would cease. Due to great public interest, and a little additional funding, it was announced on April 21 that data sets will continue to be made available throughout the mission. Maestro is a nice application, but be forewarned that it requires quite a bit of hard disk space and a fairly robust computer for proper operation.

Moving from the computer screen to the printed page, I hope everyone was able to secure a copy of the Celestial Portraits book from Tom Polakis. I don't know which I enjoy more: having the entire series available in one volume, or using it in the field. The former has allowed me to read the entire series again without rummaging through 45 magazines, the latter provides for an enjoyable evening at the eyepiece. Each article presents a west-to-east sky tour of a constellation or two. Recently I used the contents of the March 2003 article, covering Corvus, Crater and Sextans, and had a wonderful time. While the book and your favorite star chart can easily be used in the field, I used the 'software' version. Rick Tejera (SAC's Newsletter Editor) converted each article into a target list for the SkyMap Pro application. I was provided with an advance set of the lists for evaluation purposes. Rick tells me that the lists have been submitted to Chris Marriott and should soon be available on the SkyMap Pro website. They are highly recommended!

May looks to be an active month for the club, especially on the 15th. On that day you have a wide choice of activities in which to participate. It's Astronomy Day at the Arizona Science Center in downtown Phoenix. There are activities during the day and telescopes will be set up in the evening. The Desert Sunset star party will be in full swing in Three Points, Az. (south of Tucson). This is also the date for EVAC's monthly Deep Sky star party at the Vekol Road Site. Last, but not least, is the semi-annual Friends of the Arboretum star party at Boyce Thompson Arboretum State Park. This event is part of our ongoing relationship with the Arboretum, and is a fantastic event combining a gala cookout and a night of stargazing.

Please contact our events coordinator, Howard Israel, for details on these and any other upcoming club events.

Keep looking up!

If it's clear...
by
Fulton Wright, Jr
Prescott Astronomy Club
for May 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.

All this month, about 8:00 PM, you can see Venus's crescent become thinner and larger in diameter. With a small (3 inch) telescope look in the west for the brightest planet (mag -4). As the month progresses, Venus will get lower in the sky, become a little bigger in the telescope, have the crescent shrink to a sliver, but stay about the same brightness.

On Saturday, May 1, about 5:00 AM, you might see a comet. With binoculars look 10 degrees above the east horizon for **comet LINEAR, C/2002 T7.** The comet will be a little lower each morning for the next week.

On Wednesday, May 5, about 8:15 PM, you should be able to see a comet. With binoculars look 15 degrees above the southwest horizon (about 10 degrees to the left of Sirius) for **comet NEAT, C/2001 Q4.** During the next couple of weeks, Q4 will be higher and dimmer each night.

On Saturday, May 8, starting at 9:42 PM, you can see one of Jupiter's satellites come into view. Callisto is in Jupiter's shadow and takes about 15 minutes emerge just south of Io (the satellite nearest Jupiter). You should be able to follow the event in a small (3 inch) telescope.

On Saturday, May 15, about 8:30 PM, you can see a comet near a star cluster. With binoculars look 50 degrees above the west horizon for **comet Q4 and the Beehive cluster.**

On Friday, May 21, about 8:30 PM, you can see some solar system objects near each other. With your unaided eye look above the west-northwest horizon for brilliant **Venus;** the **crescent Moon**; dim, red **Mars;** and cream-colored **Saturn.** Mars and Saturn move a little closer over the next few nights as the Moon goes flying by.

On Wednesday, May 26, about 8:00 PM, you might see **comet T7 again.** With binoculars look 15 degrees above and a little west of the southwest horizon. The next few nights the comet is a little higher and dimmer.

Backyard Astronomer

by

Bill Dellinges (4/2/04)

The Origin of the Constellations

Who created the constellations? How many are there? Can we add more? These are often asked questions. The short answers are **A**: likely the Sumerians, circa 2000 B.C., and Europeans following the Renaissance. **B**: 88. **C**: No.

The history of the constellations can be divided into two distinct eras: the 48 original or "ancient" constellations and those devised after about 1500 A.D. The former were described by Claudius Ptolemaeus (Ptolemy, circa 130 A.D.) in his 13 volume *Syntaxis Mathematike*, more commonly known as the *Almagest* (Arabic, "The Greatest"). Ptolemy had nothing to do with originating any constellations but was merely summarizing all that was known about astronomy by the Greeks. The Greeks apparently were introduced to the constellations from the Greek astronomer Eudoxus (c.390-c.340) who featured them in his *Phaenomena*. While no record of the *Phaenomena* remains, another Greek astronomer, Aratus (c.315-c.245 B.C.), wrote a poetic version of the *Phaenomena* in 275 B.C. which has survived and tells us of the Greek constellation record.

However, there is reason to believe the constellations existed before Greek times. Furthermore, as Ian Ridpath alludes to in his book *Star Tales* - in an ingenious bit of deduction - it can be shown, by noting what declination the known constellations stopped at and how precession has moved the south celestial pole, that the original inventors of our star patterns were the Sumerians and Babylonians around 2000 B.C. in Mesopotamia – what is now Iraq.

Thus far we have seen where and how the original 48 "ancient" constellations were created and handed down to the Greeks (and later renamed by the Romans). Now let's examine how the balance of the 40 "modern" constellations came to be.

By the 1500's, seafaring nations were beginning to explore the world in quest of trade and adventure. Astronomers and cartographers, eager to learn of the uncharted night skies of the southern hemisphere, asked navigators to record what they saw in these new star-fields. About this same period, astronomers continued to create constellations in the northern skies from faint available stars between the brighter established star patterns.
We need to add **40** constellations to the original **48** to equal **88**.

Let's go fish!

1516: Italian navigator Andreas Corsali creates Crux (**1**).
1551: Gerardus Mercator formalizes Coma Berenices (**1**).
1592: Petrus Plancius forms Columbia (**1**) (from the N. Hem.).
1598: Pieter Keyser and Frederick de Houtman, on a trade mission to the East Indies, create twelve new constellations around the south celestial pole: Apus, Chamaeleon, Dorado, Grus, Hydrus, Indus, Musca, Pavo, Phoenix, Triangulum Australe, Tucana, and Volans. Their survival was assured by being included in Johann Bayer's 1603 star atlas, *Uranometria* (**12**).
1613: Petrus Plancius forms nondescript Monoceros and Camelopardalis (**2**).
1690: Johann Hevelius creates seven faint constellations, published after his death, in his 1690 star atlas *Firmamentum Sobiescianum*: Canes Venatici, Lacerta, Leo Minor, Lynx ("you need the eyes of a lynx to see it!"), Scutum, Sextans, and Vulpecula (**7**).
1763: Nicolas de Lacaille spends several years (1751-1754) at Cape Town, South Africa charting stars in the southern hemisphere for his 1763 star atlas, *Coelum Australe Stelliferum*. He creates fourteen new constellations: Antlia, Caelum, Circinus, Fornax, Horologium, Mensa, Microscopium, Norma, Octans, Pictor, Pyxis, Reticulum, Sculptor, and Telescopium (**14**). To this list must be added three more constellations Lacaille introduced when he broke apart the large "ancient" constellation, Argo Navis, into three smaller pieces of the ship, Carina, Puppis, and Vela (**3**).

OK, let's settle up. We started with 48 so-called ancient constellations. Subtracting Argo Navis which Lacaille dismantled leaves 47. Add to that the numbers above in bold print starting with Crux, we have: 1+1+1+12+2+7+14+3 added to the original 47 equals 88! We did it!

When discussing the history of the constellations, three additional points should be addressed. One is a kind of caveat.
1) The story is a long convoluted one and many facts are lost in the mists of time. Therefore do not be surprised if variations in detail are found in different references.
2) By convention the constellation names are Latin, the star names are generally Arabic (during Europe's Dark Ages, astronomy thrived in the Middle East), like Aldebaran ("the follower"), Denebola ("lion's tail"), and Gomeisa ("little bleary-eyed one with a filthy fluid in the corner of the eye") though there are a few Latin and Greek star names like Capella (L. "she-goat"), Sirius (Gk."scorching"), Antares (Gk."like Mars"). The myths are generally Greek.
3) Constellations continued to be created until well over 100 existed, many frivolous concoctions. In 1922, the International Astronomical Union (IAU) eliminated all but the above 88. The days of inventing constellations were over. In 1930, the IAU formed official "borders" between each constellation. Before that, one never knew where, say, Orion ended and Canis Major began. And so it is that today we have 88 immortal luminaries who rise on cue every year to greet us. Once you learn them, they will be your celestial friends forever.

Quote of the month: "I believe a leaf of grass is nothing less than the journey-work of the stars." Walt Whitman, *Song of Myself* (1855).

Editor's note: A thoroughly delightful children's song called the , "Constellation Rap" -- which includes the names of all 88 constellations set to music -- can be found on a compact disk called, "The Big Bang Band Traveling Star Show". This CD is the work of three amateur astronomer musicians and includes a number of factually correct astronomical songs songs for children. All proceeds from the sale of this $10 CD go to the support of the non-profit educational Robert Ferguson Observatory in northern California. Two web sites are:
The Robert Ferguson Observatory: http://www.rfo.org/ and The Big Bang Band: http://www.bigbangband.biz/

Famous Dates in Astronomical History

By
Bill Dellinges (9/26/03)

Date = What event?

This month, let's see if certain dates jar your memory. If you've been into astronomy more than a few years, there are dates associated with noteworthy events which should scream at you. For instance, if I said "1608"…the first thing that should come to mind is the invention of the telescope. 1781? Herschel discovers Uranus. 1801? Piazzi discovers first asteroid. 1912? Henrietta Leavitt discovers the period-luminosity relation of Cepheid variable stars.

Ok, let's get this show on the road. Below you'll find twenty years in which a famous astronomical event occurred. See if you can recall the event for that year. Answers follow in the next paragraph.

1) **1543, 1572, 1604, 1609, 1642, 1655, 1675, 1758, 1784, 1845, 1846, 1862, 1908, 1919, 1923, 1930, 1948, 1963, 1965, 1967.**

1543: Copernicus dies, his De Revolutionibus published. **1572:** Supernova in Cassiopeia. **1604**: Supernova in Ophiuchus. **1609:**Galileo turns telescope to the stars. **1642:** Galileo dies, Isaac Newton born. **1655**: Christiaan Huygens resolves Saturn's rings, discovers Titan. **1675**: G. Cassini discovers Saturn's Cassini's Division and 4 moons. **1758:** Halley's Comet predicted return; John Dolland rediscovers achromatic lens principle of Chester Hall (1729). **1784:** Final form of Messier's list published. **1845**: Lord Rosse (Wm. Parsons) builds the 72" "Leviathan" reflector, biggest telescope till the Mt. Wilson 60". **1846**: Galle discovers Neptune from Adams and Le Verrier calculations. **1862**: Alvan Clark discovers Sirius B testing new 18" refractor (predicted by F. Bessel in 1834). **1908:** 60" reflector begins service on Mt. Wilson; Tunguska Event in Siberia. **1919:** Solar eclipse verifies Sun's gravity bends light according to Einstein's General Theory of relativity. **1923**: Edwin Hubble determines distance of M31 using Cepheid variable stars (confirming it was indeed an external galaxy). **1930**: Clyde Tombaugh discovers Pluto. **1948:** 200" Hale telescope goes online at Mt. Palomar. **1963**: Maarten Schmidt discovers nature of Quasars red shifted spectral emission lines. **1965**: Penzias and Wilson discover 2.7K microwave background radiation from Big Bang. **1967**: Jocelyn Bell discovers first radio Pulsar (PSR 1919+21).

Till next month I leave you with this truism: "The pain of poor quality lingers on long after the pleasure of low price wears off." Ed Ting.

Desert Sunset Star Party - May 13-16, 2004

The 2004 Desert Sunset Star Party will be held at the Caballo Loco Ranch, about 11.5 miles south of Three Points, AZ, on Rt. 286, and then east for 8 miles. This RV ranch is in a secluded area of Arizona with dark skies. The Sierrita Mountains block the light dome of Tucson. The domes of Kitt Peak are in clear view to the west. The DSSP begins on Thursday night and runs through Saturday night. We will have a speaker on both Friday and Saturday evenings along with door prize give aways. Registration information is posted on the DSSP website

We have a printable flyer at: http://chartmarker.tripod.com/sunset.htm

Pat and Arleen Heimann
Chart Markers and More

May Classified Ads.

Free Classified Ads (Wanted & For Sale)

Noncommercial advertisements for Scopes or 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 are "tagged" with the first issue in which they appeared.**

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 (April)

Here is your chance to get some really great equipment for little money.. Basically everything I own must go. The 12" scope is just too big for me to handle alone. As well my family/work schedule just isn't permitting me the opportunity to actively observe any longer. No reasonable offers will be refused!! I may consider partial trade for a medium sized truss dob for the few times a year I can observe. Please contact Martin for more information @ 480-926-4900 or mbonadio@cox.net

12" LX-200 GPS UHTC

This scope is less than 2 years old and has been used less than a dozen times. In addition to all standard equipment, I'm included with this scope: giant field tripod, electric focuser, focal reducer, 2" mirror-diagonal, 17AmpHr portable battery, A/C adapter, Meade Fitted case, Scopesaver table, bob's knobs, Telrad finder, Peterson equipped accessories: Handles, Clutch kit, and brand new (not installed) dec. kit. Current with 2.0i firmware. I'm also including a Meade LPI imaging camera (used 2x), and am willing to negotiate for numerous included eyepieces and other visual and photographic accessories.

5" Celestron NexStar SCT

This is a fully GO-TO (non GPS) scope. Includes tripod, 1x finder, bob-s knobs, 20mm eyepiece, power supply, and fitted hard carrying case. Scope has been used only a handful of times. Has good optics and is perfect for backyard planetary observing or star parties.

35mm Astro-Photo Cameras

I have 2 working 35mm Olympus cameras (OM-1 and an OM-2n), a sealed watertight case, all SCT connecting accessories, T-rings, 2 Olympus lens (one for wide field piggyback), a right-angle finder, shutter locks, filters, and other various astro-photo items to connect to SCT for prime focus and variable higher power film imaging. I attempted to do astro-photography a few years ago and never stayed interested. Make me an offer on the whole lot. No reasonable offer will be refused.

Contact Martin Bonadio
mbonadio@cox.net
480-926-4900

Prepared by Howard Israel

		May Events	
Sat. May 8	Local Star Party	Boyce Thompson	Sunset 7:17 PM
Wed. May 12	General Meeting	SCC-PS 172	8:30 PM Speaker, Dr. M. Minitti
Fri. May 14	Public Star Party	Gilbert Library	7:00 PM Setup
Sat. May 15	Deep Sky Star Party	Vekol Road	Sunset 7:21 PM
Sat. May 15	Friends of BTA Star Party	Boyce Thompson	Details to follow
Sat. May 15	Astronomy Day	Arizona Science Center	Volunteers needed
Wed. May 19	DeVry Star Party	Challenger Space Center	Details TBA, Volunteers needed
Thurs. May 20	Chandler HS Outreach	Chandler HS	7:30 - 8:15 PM Volunteers needed
Sat. May 22	Lowell Obs./Challenger	Challenger Space Center	Speaker, Dr. R. Millis
Fri. May 28 - 30	RTMC Astronomy Expo	Big Bear, CA	Transits & Occultations
		June Events	
Sat. June 5	Beginners Lab	TBD	
Sat. June 5	Local Star Party	Boyce Thompson	Sunset 7:35 PM
Wed. June 9	General Meeting	SCC-PS 172	7:30 PM Speaker, TBD
Fri. June 11	Public Star Party	Gilbert Library	7:30 PM Setup
Sat. June 12	Deep Sky Star Party	Vekol Road	Sunset 7:39 PM
June 17 - 20	Lowell Star Party	Flagstaff, AZ	See EVAC Event Calendar
June 12 - 19	Grand Canyon Star Party	North & South Rim	http://www.tucsonastronomy.org/
		July Events	
Sat. July 3	Beginners Lab	TBD	7:00 PM Setup
Fri. July 9	Public Star Party	Gilbert Library	7:30 PM Setup
Sat. July 14	Deep Sky Star Party	Vekol Road	Sunset 7:41 PM
Wed. July 14	General Meeting	SCC-PS 172	7:30 PM Speaker, TBD
Sat. July 17	Local Star Party	Boyce Thompson	Sunset 7:41 PM

EVAC Meeting Minutes
April 14, 2004
Diane Cook – Secretary

President Peter Argenziano opened the meeting by welcoming EVAC members and guests. Dave Williams, Property Manager announced the acquisition of a new telescope and availability of books through EVAC's library. Tom Polakis' book, *Celestial Portraits*, was available for purchase, $5.00. A.J. Crayon discussed results of the March 20 Messier Marathon. Howard Israel gave update on volunteer opportunities at local schools and Astronomy Day at Arizona Science Center – May 15. Announcement of RTMC Astronomy Expo, May 28-31 at Big Bear, CA.

Recognition:

Joe Orman – *APOD*, March 20 for Equinox sunrise
Messier Marathon certificates and recognition

April Guest Speaker:

Dr. Paul Scowen, Space Mission Development, Department of Physics and Astronomy at Arizona State University, presented "ORION" and "HORUS", space missions designed to understand star formation and study massive star forming regions. The latest mission, Origins Science Mission (now on fast track) lead to HORUS. HORUS: inherited ORION mission, 2.4-m Hubbell-like mirror, at fraction of Hubbell mission cost, 2010-2011, HQ in Phoenix. Designed to detect planet transits and study star formation in the early universe and inter-galactic medium evolution.

Introducing
Our
May Guest Speaker

Michelle Minitti, a Faculty Research Associate with the Center for Meteorite Studies at Arizona State University, was born and raised in Tempe, Arizona and graduated from McClintock High School in 1991. Supported by a scholarship from The Flinn Foundation, she attended the University of Arizona in Tucson, Arizona to study materials science and engineering and graduated magna cum laude with a B.S. degree in 1995. From there Michelle entered the Department of Geological Sciences at Brown University in 1995 and studied the effects of impact shock, water and oxidation on Martian meteorites, magma petrogenesis and spectral properties. After defending her Ph.D. thesis in 2000, Michelle held postdoctoral research positions at the Geophysical Laboratory of the Carnegie Institution of Washington and at Arizona State University through the NASA Astrobiology Institute. Michelle currently pursues investigations aimed at understanding the Martian meteorites and their context in Mars remote sensing datasets.

Your Tip Counts!

By Martin Bonadio

We have an exciting night planned for our upcoming September 2004 EVAC general meeting. So special, we are calling it the "Night of 100 Tips". And we need your help. Our goal is to put together a presentation that encompasses tips from our members. Those tips will be compiled into a keepsake newsletter article pullout, emblazoned on our club website, and the focus of a presentation during that month's general meeting.

What's exciting is that each of you has the chance to become a featured guest speaker! All we need is your tip. Share with the club one or two observational, planning, telescope, or related item. The more tips the merrier, as everyone will be able to benefit from them. During the presentation numerous tips will be presented along with credit (if desired). We'll try to share as many tips as we can that night! Wow!

We are also making final plans to host a first ever beginners workshop in the SCC planetarium from 6:30 – 7:30pm, September 8th (before the meeting). Once finalized, there will be a sign-up sheet for up to 30 people. At the workshop a presentation on learning the night sky will be followed by host EVAC members sharing with you tips on telescope and eyepiece selection, star charting, and other beginner topics. If successful the beginner's workshop will possibly become a quarterly event for EVAC meetings!

I'm excited about this upcoming meeting, and I hope you will share your tips with us! Everyone's tip counts! You can email your tip to Martin Bonadio at mbonadio@cox.net. A form will soon be placed on the club website where tips can also be submitted electronically. Feel free to attach pictures or diagrams that you think are helpful. You can also fill in the space below and give it to Martin at any meeting between March and August.

Your Name	
Tip Title	
Tip	

A Final Reminder
Now is the Time!

There are some excellent Astronomical events coming this this month and next. Three of my personal favorites are; The Riverside Telescope Maker's Conference (now called the RTMC Astronomy Expo), which is held Friday, May 28, through Sunday, May 30, 2004 (Memorial Day weekend), The Lowell Observatory Star Party, and The Grand Canyon Star Party (both in June).
If you plan to attend any (or all) of these events, now is the time to make your plans! I've listed helpful links below:
http://www.rtmcastronomyexpo.org/
http://kraken.lowell.edu/lsp2/schedule.html
http://www.tucsonastronomy.org/gcsp.html
Don't delay!

John Matthews

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
( ) ( ) $32.00 /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"

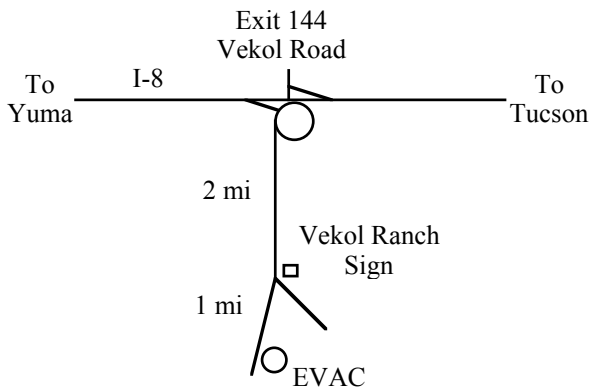
How to get there: Drive East on US 60 past Florence Junction for both sites. About 3.7 miles East of Florence Junction (after crossing railroad tracks) you will see a (second) flagpole on your right. Turning right (South) here and following the dirt road for 0.6 miles you will reach the FJ #1 site (marked 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

PRESIDENT
Peter Argenziano
(480) 633-7479

VICE PRESIDENT
Martin Bonadio
(480) 926-4900

TREASURER
Jack McEnroe

SECRETARY
Diane Cook

EV. COORDINATOR
Howard Israel
(480) 893-7523

PROPERTIES
Dave Williams

NEWSLETTER
John Matthews
(602) 952-9808

WEB MASTER
Marty Pieczonka

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).

EVAC
PO Box 2202
Mesa, AZ 85214

EVAC Homepage:
www.eastvalleyastronomy.org

Reminders:

May EVAC Meeting
Wednesday, May 12, 2004
Location: Room PS – 172
Physical Science, (SCC) @ **8:30PM**

June EVAC Meeting
Wednesday, June 9, 2004
Location: Room PS – 172
Physical Science, (SCC) @ 7:30PM