



East Valley Astronomy Club

April 2004

www.eastvalleyastronomy.org

Scottsdale, Arizona

April 2004



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From the Desk of the President

by

Peter Argenziano
2004 EVAC President

And a good time was had by... some.

This year may be remembered for the All-Arizona Messier Marathon that almost wasn't... almost. Early in the week preceding the big annual event held south of Arizona City, the weather looked ominous. By mid-week, however, most reports indicated that Saturday night would be clear. Many amateurs from around the state held their collective breath and crossed their fingers.

The morning sky of Saturday, March 20th looked promising for the night's activities. But, as morning turned to afternoon the clouds began thickening. Eager to participate in this great event I dutifully packed my Dob (and assorted accessories) into my truck. After a quick stop for gasoline, ice and coffee, I was on my way to the 2004 edition of the springtime homage to that famous French comet hunter. As the delightful sounds of Mozart's 'Jupiter' symphony filled my Jeep, I rationalized my attendance any number of ways during the trip to Farnsworth Ranch. With optimism: these clouds will be gone by sunset. With anticipation: this is the year I bag all 110. With a sense of guilt: I'll feel terrible if I don't go and the night is clear. With quiet resolve: I really deserve a night away from the city. With acceptance: even if the weather isn't ideal, a night spent in good company is worth the trip.

Upon my arrival, I was a little surprised by how few vehicles were present. It was certainly no difficult task locating a suitable spot amidst the twenty other vehicles in the vast observing field. I soon found myself discussing the weather outlook with others under the Goss hospitality tent. Would it clear up in time? Optimism waned as the shadows ceased.

By 5:00 PM I had my telescope assembled in hopeful anticipation of the coming darkness. By now a light but steady stream of vehicles continued to enter the field. Thirty, forty, fifty, sixty... Surely all these folks checked the weather reports before they ventured out. Or, perhaps they did and they decided to come anyway.

At about a quarter past six, AJ gathered the attendees for a little meeting. He announced that if conditions didn't improve the event would be canceled. The event rules were covered, the observation log sheets were distributed, and the 2004 Messier Marathon commenced. As I collimated my scope I resigned myself to just enjoying the night, whether that meant observing one or one hundred objects.

As twilight approached I knew that this year's event would require a slightly different strategy. Some deviation from the usual order of observation would be necessary as I navigated for clear patches of sky. To the west both Pisces and Cetus confirmed my supposition; either spotty cloud cover or the level of light forced me to temporarily skip over M74 and M77. At times even blazing Venus was somewhat dim. I surveyed my list and scanned the sky for 'areas of opportunity'. I kept returning to the west in hopes of catching those elusive galaxies, but it was not to be. Sadly, I realized the best I could do now would be 108.

I continued my unorthodox, but highly successful, strategy until sometime after midnight when the skies cleared wonderfully. I was able to keep moving down the list, on pace for a personal best. The improved sky conditions also allowed me to resume a normal pace, which meant time for a nap or visiting with friends.

The last dozen objects proved especially challenging, as clouds formed along the eastern horizon. With 107 items already bagged, I nervously awaited the arrival of M30 over the distant

hills. But again, it was not to be. As dawn neared it became painfully obvious that the eastern sky was heavily clouded. The 2004 Messier Marathon was over. While this Moon-less, partly cloudy night was far from ideal, it was nonetheless another great outing.

Keep looking up!

If it's clear...
by
Fulton Wright, Jr.
Prescott Astronomy Club
for April 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 Friday, April 2, about 8:00 PM, you can see a planet near a star cluster. With binoculars look 30 degrees above the west horizon for brilliant **Venus** (mag -4) and the **Pleiades** star cluster. Venus will also be close to the cluster on the next night. While you are out, look at the red ones above and to the left of Venus. **Aldebaran**, on the left, is half a magnitude brighter than **Mars**, on the right.

On Sunday, April 4, after 1:45 AM, you can see 3 of Jupiter's satellites disappear in about 20 minutes. At 1:45 AM **Io** goes in front of the planet. At 1:48 AM **Europa** goes behind the planet. At 2:06 AM **Ganymede** goes in front. You might as well stay up to 2:27 AM to see Io's shadow fall on the planet.

On Monday, April 5, you can see a **double shadow** transit on

Jupiter. Notice how close the two satellites are to each other before the first event.

8:11 PM Io goes in front of Jupiter

8:23 PM Europa goes in front of Jupiter

8:55 PM Io's shadow falls on Jupiter (**1 shadow**)

9:54 PM Europa's shadow falls on Jupiter (**2 shadows!**)

10:26 PM Io moves from in front of Jupiter

11:10 PM Io's shadow leaves Jupiter (**1 shadow left**)

11:13 PM Europa moves from in front of Jupiter

12:44 AM Europa's shadow leaves Jupiter (**the show is over**)

On Friday, April 9, at 8:14 PM, you can see two of Jupiter's satellites, **Io** and **Europa**, only 2 arc seconds apart. Jupiter will be 55 degrees above the southeast horizon.

Just after the start of Tuesday, **April 13**, between **12:31 AM** and **1:04 AM**, **Io's** and **Europa's** shadows will both be on Jupiter.

On the night of Wednesday, April 21, you can catch some events with Jupiter's moons. The evening starts with Io and its shadow on Jupiter. Here is the schedule: **7:39 PM Europa** goes behind Jupiter (it may not be dark enough yet for this one) **8:28 PM Io** moves from in front of Jupiter **9:27 PM Io's shadow** leaves Jupiter **10:58 PM Ganymede** goes behind Jupiter **12:26 AM Europa** appears from Jupiter's shadow **12:45 AM Callisto** goes into Jupiter's shadow **2:24 AM Ganymede** appears from behind Jupiter **3:06 AM Ganymede** goes into Jupiter's shadow

On Thursday, April 22, about 8:00 PM, you can see a nice grouping of objects. With your unaided eye look 30 degrees above the west horizon for the crescent **Moon**, **Venus** (mag -4), and **Mars** (mag 2). The next night the moon will be at the top rather than at the bottom of the group. Yes, that's **Saturn** a bit further up the ecliptic.

On Friday, April 30, about 4:40 AM, you might see a comet. With binoculars look 10 degrees above the east horizon for a fuzzy blob called **C/2002 T7(LINEAR)**. We will have a chance at another comet in the feet of Canis Major early next month.

EVAC Meeting Minutes
March 10, 2004
by
Tom Polakis for (Diane Cook)

The meeting opened at 7:30 in front of another full-house audience. After a treasurers report by Jack McEnroe, AJ Crayon gave an update on the Messier Marathon, which was held on the night of March 20. Howard Israel followed with the calendar of upcoming events.

Martin Bonadio announced the upcoming Scottsdale Community College star party. This is how we pay "rent" for our meeting room, so it's good to return the favor to the college.

JPL Ambassador Peter Argenziano gave a presentation about the Cassini spacecraft images of Jupiter. Cassini will reach Saturn this July.

The main speaker was Chris Corbally of the Vatican Observatory. His talk was called "Getting to Know Thy Neighbors." Corbally's area of specialty is nearby stars. By studying their spectra and classifying them, their physical parameters can be inferred. His survey has shown that stars with exoplanets are typically more metal-rich. This conclusion will help in upcoming space missions that are designed to search for extra solar planets.

2004 ALL ARIZONA MESSIER MARATHON

Well this year's marathon didn't seem to start out so well - mainly due to the weather. Late Friday afternoon I met up with Ken Sikes, his two sons and Steve Coe, at Sunland Gin Road and Interstate 10, with all of us headed towards the site under pretty cloudy skies. Under normal conditions we all would have probably stayed home, but this was Messier Marathon weekend and there wasn't any holding us back. By the time we arrived at the site there was the port-a-potty, ordered by Jack Jones, and about 10 other vehicles.

Friday night started out with much fewer clouds and we showed Ken's sons Clay, and Jeremy who was home on leave from the US Navy, celestial sights they hadn't seen in some years; like the Great Nebula in Orion and open clusters in Auriga. But it wasn't long afterwards that the clouds rolled in again. I called it a night about midnight.

I awoke Saturday morning and the clouds were still with us; leading us to believe there wouldn't be more than 20 or so vehicles - were we wrong here! Saturday afternoon wasn't much better either and around 3:00pm Sheryl Gambardella arrived after having put the SAC signs out along with the already placed EVAC signs.

Around 4:00pm vehicles started to arrive, and arrive, and arrive. Even with partly cloudy skies and they kept arriving.

We had our usual meeting a few minutes before sunset, under cloudy skies. I did announce that if the sky stayed cloudy and no one was able to find anything by around 9:30pm or 10:00pm the event would be canceled. This caught some folks by surprise, but all seemed resigned to the fact that if you couldn't find any thing why continue with the event.

For some strange reason, after the meeting broke up . . . the clouds started to break up starting from the west. By around 7:30pm all the marathoners were straining to see M77 and M74. Most missed both, but the skies were partly cloudy and enough for the marathon to continue. By the 9:30pm time it was abundantly clear there would be NO cancellation now! Around 11:00pm several folks left the site and by midnight the sky was clear of clouds, but the seeing still wasn't good enough for serious observing or astrophotography.

As the night wore on most SAC and EVAC members stayed with the marathon, only a few gave up.

Every marathon seems to have its unique attraction, and this one was no exception. If it wasn't the weather it was the tow truck that arrived around 5:10am. That's just three minutes after twilight when everyone was trying for M30! Of course it had lights and lots of them.

By 5:00am I was watching Richard Payne, Matt Luttinen and Rick Tejera pooling their resources to determine exactly where M30 would rise. So far all had found 109 objects and were desperately trying for the last one.

The week before the marathon Tom Polakis posted a message about the visibility of M30 in early season marathons. It seems the earliest date for it being observed, when all 110 were observed, was by Gerry Rattley on the morning of March 24, 1985. See the following site <http://www.seds.org/messier/xtra/marathon/results.html> for more information about this, other marathon events and Charles Messier. Many of us pondered seeing M30 for the current marathon.

Now here they are working to get postured to see M30 and this tow truck comes up on the field. It's a big observing field and the trucks lights are bright, very bright. I turned around to watch the truck hoping for its lights to go away and discussed this with someone standing next to me. In a few moments it lights go out and it turns around to back up to the disabled vehicle. About this time Rick Tejera is announcing, "I guess 109 is the limit for this event." Turning around to see what was the matter it was easily determined . . . the clouds rolled in right where M30 was expected to rise. Gerry Rattley's record will seem to stand, for now anyway.

Later in the morning, when picking up the check lists, discussing the marathon and astronomy in general, Jim Gutman said he counted 63 vehicles at sunset and around 30 were still there by sunrise. Not bad considering what the weather was like the day before.

Before leaving the site Ray Farnsworth dropped by and we talked for a few moments. Ray is the land owner that is kind and gracious enough to permit our using his land for the event. We discussed mostly the hot temperatures and cloudy skies. He didn't like them either as they forced cotton growers into an early harvest, something he wasn't prepared for. Ray also appreciated his being kept up to date about the events and was glad the marathon turned out so well.

AJ Crayon
SAC Messier Marathon Coordinator
<http://www.saguaroastro.org/>

Editor's Note: See the Results Table on the following page.



Mr. Telescope

Uptown Plaza Shopping Center
20 E. Camelback Road
Phoenix AZ 85012
602/955-5521
Jack Johnston

TELESCOPES, ACCESSORIES, LITERATURE, BINOCULARS
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800 574-2589

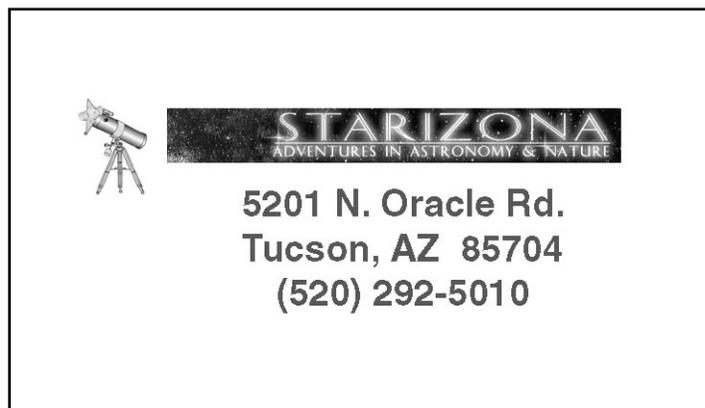
E-MAIL AT WEB SITE
<http://www.photoninstrument.com>

2004 All Arizona Messier Marathon Results

March 20/21, 2004 at site south of Arziona City, Arizona.

| Number | Name | Scope | Org. | Notes |
|--------|-----------------------|-----------|----------|------------------------------------|
| 109 | Matt Luttinen | 12"f5Newt | SAC | M30 |
| 109 | Richard Payne | 8"f6 Newt | SAC | M30 |
| 109 | Rick Tejera | 8"f6DOB | SAC | M30 |
| 108 | Paul Lind | 14.5"DOB | SAC | M74 M30 |
| 107 | Peter Argenziano | 33cmDOB | EVAC/SAC | M74 77 30 |
| 106 | Anne Marie Cooper | 10"LX200 | EVAC | M74 33 79 30 |
| 106 | David Hardingen | 10"LX200 | EVAC | M74 33 93 30 |
| 106 | Roger Hutchins | 8"LX200 | EVAC | M74 M77 M33 M30 |
| 104 | Dave Jeff Trogan | 8"LX200 | EVAC | M74 M33 M110 M76 M79 M30 |
| 104 | John Welsh | 10"LXD55 | N/A | M74 M33 M110 M76 M34 M30 |
| 103 | Carter Smith | 10"DOB | TAAA | M74 M77 M33 M31 M32 M110 M30 |
| 102 | Scott/David Kroeppler | 80mm ref | AL | M74 M77 M32 M110 M2 M72 M73 M30 |
| 97 | Lu Russ | 10"DOB | EVAC | |
| 90 | Scott Saari | 8"DOB | EVAC | |
| 85 | Sheryl Gambardella | 8"f6DOB | SAC | |
| 66 | Sierra DeMesa | 8"Ultima | TAAA | |
| 66 | Howard Israel | NexStar11 | EVAC | |
| 57 | Joan McGue | 8"f6DOB | SAC | |
| 53 | Jim Gutman | NexStar11 | EVAC | |
| 53 | Chuck Shields | ETX70 | EVAC | |
| 52 | Jack Jones | 80mmED | SAC | |

AL = Astronomical League M-A-L



April 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 (February)

Orion StarMax 127mm 5" Maksutov-Cassegrain 1540mm focal length f/12.1 with 25mm eyepiece, 6x26 finder scope and telescope carrying case. Dual axis drive that's never been used. With AstroView equatorial mount. don't want to deal with shipping, so for sale in the Phoenix area only. \$400.00

Call Damion Pauksta at 602-240-5421
damionbow@aol.com

□

For Sale (February)

Celestron NexStar 114GT Mount

Mount only - no OTA. Includes GoTo hand controller with 4,000 object database, tripod and manual. Adapters for attaching small refractors are commercially available. One year old. \$75.00

Also, Televue 12mm Nagler (Type 2). Fits 2" or 1.25" focuser. \$150.00

Contact Sam or Anne
Sam&Anne@pobox.com
480-924-5981

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

| | | EVAC Events | |
|------------------|------------------------------|--------------------------|--|
| | | April Events | |
| Fri. Apr.2 – Sun | Outdoors Women Workshop | Prescott, Arizona | Volunteers needed |
| Sat. Apr.3 | Beginners Lab | Dave Coshows' home | 7:00 PM Setup |
| Fri. Apr. 9 | Public Star Party | Gilbert Library | 7:00 PM Setup |
| Wed. Apr 14 | General Meeting | SCC-PS 172 | 7:30PM Prof. Paul Scowen, ASU |
| Sat. Apr. 17 | Deep Sky Star Party | Vekol Road | Sunset 7:01PM |
| Sat. Apr. 24 | Local Star party | Boyce Thompson Arboretum | Sunset: 7:06PM |
| Mon. Apr. 26 | Lecture-Mapping the Universe | Arizona Science Center | Prof. M. Haynes Reception, 5:30PM |
| | | May Events | |
| Sat. May 1 | Beginners Lab | Dave Coshows' home | 7:00 PM Setup |
| Sat. May 8 | Local Star party | Boyce Thompson Arboretum | Sunset: 7:17PM |
| Wed. May 12 | General Meeting | SCC-PS 172 | 7:30PM Guest Speaker TBD |
| Thu. May 13 - 16 | Desert Sunset Star Party | Tucson, AZ | http://chartmarker.tripod.com |
| Fri. May 14 | Public Star Party | Gilbert Library | 7:00 PM Setup |
| Sat. May 15 | Deep Sky Star Party | Vekol Road | Sunset 7:21PM |
| Sat. May 15 | Astronomy Day | Arizona Science Center | Volunteers needed |
| Fri. May 28 – 30 | RTMC Astronomy Expo | Big Bear City, CA | |
| | | Upcoming Events | |
| June 17 – 20 | The Lowell Star Party | Flagstaff, AZ | See EVAC Event Calendar |
| June 12 – 19 | Grand Canyon Star Party | North and South Rim | www.tucsonastronomy.org/gcsp.html |



Jovian Transit Event Saturday, March 28, 2004 07:37 UT (12:37 MST)

This image was taken from my Gilbert backyard using my 150 mm (6") Intes Maksutov-Cassegrain telescope (1800 mm focal length, F12) coupled with a Tele Vue 2" Big Barlow (2x) and a Philips ToUCam Pro II (840) webcam with Scopetronix 1" adapter. A sequence of 763 frames were captured at 10 fps and a shutter speed of 1/25 second using VRecord software. Of the best 323 frames, 299 were stacked using Registax; and the resultant image was processed with Photoshop 7. This image shows two shadow transits (Callisto and Io) and one satellite transit (Ganymede), and was taken about a half hour prior to the rare triple shadow transit event.

NASA's Space Place

Astronomers have finally confirmed something they had long suspected: there *is* a super-massive black hole in the center of our Milky Way galaxy. The evidence? A star near the galactic center orbits something unseen at a top speed of 5000 km/s. Only a black hole 2 million times more massive than our Sun could cause the star to move so fast.

(See the Oct. 17, 2002, issue of *Nature* for more information.)

Still, a key mystery remains. Where did the black hole come from? For that matter, where do *any* super-massive black holes come from? There is mounting evidence that such "monsters" lurk in the middles of most galaxies, yet their origin is unknown. Do they start out as tiny black holes that grow slowly, attracting material piecemeal from passing stars and clouds? Or are they born big, their mass increasing in large gulps when their host galaxy collides with another galaxy?

A new space telescope called LISA (short for "Laser Interferometer Space Antenna") aims to find out.

Designed by scientists at NASA and the European Space Agency, LISA doesn't detect ordinary forms of electromagnetic radiation such as light or radio waves. It senses ripples in the fabric of space-time itself--gravitational waves.

Albert Einstein first realized in 1916 that gravitational waves might exist. His equations of general relativity, which describe gravity, had solutions that reminded him of ripples on a pond. These "gravity ripples" travel at the speed of light and, ironically,

do not interact much with matter. As a result, they can cross the cosmos quickly and intact.

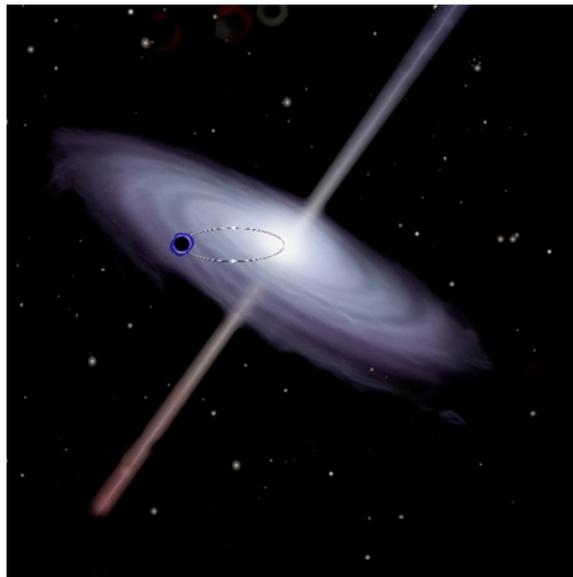
Gravitational waves are created any time big masses spin, collide or explode. Matter crashing into a black hole, for example, would do it. So would two black holes colliding. If astronomers could monitor gravitational waves coming from a super-massive black hole, they could learn how it grows and evolves.

Unfortunately, these waves are hard to measure. If a gravitational wave traveled from the black hole at the center of our galaxy and passed through your body, it would stretch and compress you by an amount far less than the width of an atom. LISA, however, will be able to detect such tiny compressions.

LISA consists of three spacecraft flying in formation—a giant triangle 5 million km on each side. One of the spacecraft will shoot laser beams at the other two. Those two will echo the laser signal right back. By comparing the echoes to the original signal, onboard instruments can sense changes in the size of the triangle as small as 0.0000000002 meters (20 picometers).

With such sensitivity, astronomers might detect gravitational waves from all kinds of cosmic sources. The first, however, will probably be the weightiest: super-massive black holes. Will "feeling" the ripples from such objects finally solve their mystery, or lead to more questions? Only time will tell".

Scientists hope to launch the LISA mission in 2011.



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 | |
| | |
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Our April Speaker

Dr Paul Scowen currently works as a Research Professional at ASU in the Dept. of Physics & Astronomy. Over the past 10 years he has been actively working with the Hubble Space Telescope as a scientist and as part of the science team that designed, tested and verified the WFPC-2 camera that was one of the first devices to "fix" the optics on the Observatory back in 1993. Since then he has been active on at least a half-dozen science projects using HST. He originally got his Bachelors in Physics from the University of Birmingham in England in 1987, his Masters in Astrophysics and Doctorate in Astronomy from Rice University in Houston in 1989 and 1992 respectively. He is currently actively working towards a NASA MIDEX proposal as Project Scientist with local aerospace industry partners here in Phoenix. His talk will focus on the science and planning associated with the MIDEX mission currently being planned at ASU and elsewhere.

A Spring Reminder Now is the Time!

Despite the recent clouds and rain -- falling, as I'm writing these words -- there are some excellent Astronomical events coming this Spring. 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.rtmastronomyexpo.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
- \$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"

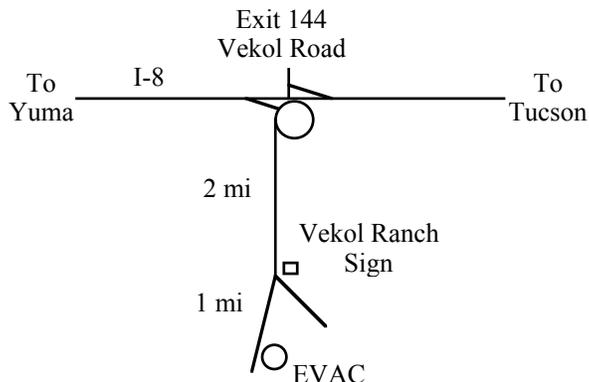
How to get there: Drive East on US 60 past Florence Junction for both sites. About 3.7 miles East of Florence Junction (after crossing railroad tracks) you will see a (second) flagpole on your right. Turning right (South) here and following the dirt road for 0.6 miles you will reach the FJ #1 site (marked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

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).



**East Valley
Astronomy Club**

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

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

Reminders:

**April EVAC Meeting
Wednesday, April 14, 2004**

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

**May EVAC Meeting
Wednesday, May 12, 2004**

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