



# East Valley Astronomy Club

May 2003

www.eastvalleyastronomy.org

Scottsdale, Arizona

May 2003



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## From the Desk of the President

by

**Peter Argenziano**  
**2003 EVAC President**

OK, I'll admit it. I have truly become acclimatized. Having called the Valley home these past 22 years, I've grown accustomed to the mild nighttime temperatures that bracket the at times unbearable summer nights. There's just something appealing about observing through the night without constantly adding another layer of clothing. Now, you'll also find me extolling the virtues of the latest synthetic cold-weather garments beneath the splendor of the Winter sky, but that's another story for another issue...

If you, too, like your observing sessions with good friends amid moderate temperatures, the next month is sure to please.

I'll start my look at this month's events by looking back at the 2003 Sentinel-Schwaar Star Gaze. This was my first trip to Sentinel, a nice, dark site 'discovered' by a few SAC members a couple of decades ago. The site is quite easy to find, and the trip took the better part of two hours from Gilbert. I took Queen Creek Road west from Gilbert. Queen Creek becomes Maricopa Road (Route 347) as you cross over I-10. Head south on Maricopa Road until you connect with I-8; then head west. Past the Vekol exit (#144) to the Sentinel exit (#87), head south over the railroad tracks, two miles on the dirt road, and you are there.

Unfortunately, work commitments limited my attendance to one night – Saturday, April 26. A clear daytime sky gave way to an equally clear evening sky, but the conditions would not last. By midnight the clouds had moved in, reducing transparency and seeing to disheartening levels. Another hour or so, and it was time to call it a night.

The evening started out quite nicely, with some pretty spectacular views of an Io shadow transit across Jupiter. The views through my 13.1" were inspiring, but were easily surpassed by those offered up by Matt Luttinen's new 14" reflector.

From Jupiter, I moved over to Corvus to observe the 10<sup>th</sup> magnitude planetary nebula NGC 4361. This nebula, 2,600 light years distant and expanding at a rate of almost 25 miles per second, appeared as a fairly bright, large disk. The 13<sup>th</sup> magnitude central star was easily seen. NGC 4361 is situated about 2° southeast of Gienah (Gamma Corvi), the second magnitude star forming the back of the Crow's head – or the upper right star if you have trouble making a crow out of the four prominent stars comprising the quadrangle of Corvus.

I happily spent the next couple of hours observing galaxies in Corvus. Among my documented observations were the following galaxies:

- NGC 4024: a faint, very small barred spiral.
- NGC 4027: a faint, round spiral with a slightly elongated nucleus. I could not discern the interacting irregular galaxy, NGC 4027A.
- NGC 4033: a small, somewhat bright, slightly elongated elliptical galaxy.
- NGC 4038 and 4039: the Antennae galaxies. These colliding spirals appeared as large and somewhat bright with a pair of long, thin arms.
- NGC 4094: a very faint, albeit large spiral galaxy.
- NGC 4462: a fairly bright, small, elongated barred spiral.
- NGC 4782 and 4783: pretty faint and pretty small, I could not discern this observation as two separate interacting elliptical galaxies.
- NGC 4802: a very faint, very small spiral that appears to have the 10<sup>th</sup> magnitude star (HIP 59041) attached.

*contd. on p.2*

*contd. from p.1*

All in all, a most enjoyable night... if only the weather had been more cooperative. Speaking of enjoyable nights, May promises to offer up a few of its own, including:

May 1<sup>st</sup> – 4<sup>th</sup>: Desert Sunset Star Party

A commercial venture sponsored by Chart Markers and More to be held at Kartchner Caverns State Park. For more details visit <http://chartmarker.tripod.com/sunset.htm>

May 3<sup>rd</sup>: This was the original date for the Eyepiece Shootout at the Vekol site. If the weather is good, I'll bet folks will be out there anyway.

May 9<sup>th</sup>: Public star party at the Riparian Preserve in Gilbert. The Preserve is just east of the Southeast Regional Library. Volunteers are welcome, with a 7:00 PM setup time.

May 9<sup>th</sup>: A private star party at Boulder Creek Elementary School Space Camp. Volunteers are needed – contact Howard Israel for complete details.

May 10<sup>th</sup>: EVAC tour of the US Naval Observatory in Flagstaff. The tour starts at 11:00 AM. See the EVAC Calendar of Events for complete details.

May 15<sup>th</sup>: Flower Moon Lunar Eclipse Event at Desert Botanical Gardens in Phoenix. Volunteers are needed for this private event, which features an ice cream social, to view the total lunar eclipse from the grounds of the beautiful Botanical Gardens. Contact Howard Israel for complete details.

May 17<sup>th</sup>: Kid's Astronomy Day at the Arizona Science Center in Phoenix. Volunteers are needed for this daytime event (10:00 AM to 5:00 PM). Contact Howard Israel for complete details.

May 23<sup>rd</sup> – 25<sup>th</sup>: The 35th Annual RTMC Astronomy Expo will be held on Memorial Day weekend. It will be held at the YMCA Camp Oakes, five miles southeast of Big Bear City (about

50 miles northeast of Riverside in the San Bernardino Mountains). For complete details visit <http://www.rtmc-inc.org/>

May 24<sup>th</sup>: Friends of the Arboretum Star Party at Boyce Thompson Arboretum State Park. This event coincides with the May Local Star Party. If you haven't attended one of our biannual star parties at Boyce Thompson, get ready for a treat. Plan on arriving around 5:30 PM to get your equipment set up before one of the finest cookouts of the season. After dining, we treat our hosts to an evening of star gazing. We can have upwards of 200 interested attendees, so volunteers are most welcome. After entertaining our hosts, we can stay and do our own observing. Contact Howard Israel for complete details.

May 30<sup>th</sup> – 31<sup>st</sup>: Northern Arizona Star Party, hosted by the Prescott Astronomy Club. Complete details can be found at <http://www.pacorg.net/2003nasp.htm> or please call Richard Leon at (928) 772-2505.

May 30<sup>th</sup> – June 1<sup>st</sup>: Mormon Mountain Star Stare, hosted by the Coconino Astronomical Society. This event is limited to 50 attendees, so contact Bill Ferris to reserve your spot. Complete details are available here:

<http://hometown.aol.com/billferris/event.html>

Bill's email address is [BillFerris@aol.com](mailto:BillFerris@aol.com)

May 31<sup>st</sup>: The rescheduled date for the Eyepiece Shootout event at the club's dark sky site (Vekol). Contact Howard Israel for complete details.

Also remember that we have a new meeting room at Scottsdale Community College. With the exception of June and October, we will meet in the larger Turquoise room (#SC-164). Complete details, with maps, are located here:

[http://www.eastvalleyastronomy.org/EVAC/meetings\\_2003.htm](http://www.eastvalleyastronomy.org/EVAC/meetings_2003.htm)

What a great time to be an amateur astronomer in Arizona! Keep looking up!

## If it's clear... by Fulton Wright, Jr. Prescott Astronomy Club for May 2003

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

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

**On Monday, May 5, at 10:43 PM** you can see a couple of events with Jupiter's moons. With a small (3 inch) telescope look 30 degrees above the west horizon for Jupiter. Callisto will appear from behind the planet, moving to the east. 10 minutes later, Europa disappears behind the opposite limb.

**On Wednesday, May 7,** you won't be able to see a transit of Mercury in front of the Sun unless you are in the eastern hemisphere. New England may get a peek of it, right at sunrise but Arizona is out of luck. We will get our chance on November 8, 2006.

**On Monday, May 12, from 9:12 PM to 9:16 PM** you can see Europa pass almost completely behind Io. With a small (3 inch) telescope look 45 degrees above the west horizon for Jupiter. The pair is below and to the right.

**On Wednesday, May 14,** you can see some events with Jupiter's moons. With a medium (6 inch) telescope, look 50 degrees above the west horizon for the planet. Here is the schedule:

**May 14 (contd.)**

**8:43 PM** Europa moves in front of Jupiter

**8:55 PM** Callisto's shadow leaves Jupiter

**9:15 PM** Io and Callisto kiss

**11:12 PM** Europa's shadow falls on Jupiter

**11:35 PM** Europa moves from in front of Jupiter

**On Thursday, May 15,** you can see a total eclipse of the Moon. Here is the schedule:

**7:18 PM** Moon rises already in partial phase

**7:25 PM** Sun sets

**8:14 PM** total eclipse begins

**8:40 PM** midpoint of eclipse

**9:06 PM** total eclipse ends

**10:17 PM** partial eclipse ends

**11:15 PM** Moon leaves penumbra

**On Saturday, May 31,** you won't see an annular eclipse of the sun unless you are in Iceland or Greenland. Arizona doesn't even get a partial eclipse.

Sorry.

# IMAGE STABILIZED BINOCULARS

by  
Silvio Jaconelli

It all started with me reading about quick-setup binocular mounts ranging from broom handles to parallelograms in order to steady up the images seen through conventional binoculars – the ‘shakes’! My binoculars of choice were Fujinon 7x50s – absolutely gorgeous images – and at 7 power, these were close to the ‘hand-held’ threshold of 10 power; many commentators have written that steady images are hard to get at higher than 10x without some sort of mount. And yes, even at 7 power I was getting the ‘shakes’. I have a camera tripod that I used as a mount, but the viewing angle was most uncomfortable, and it was a hassle to drag the mount out every time I wanted to do some serious binocular observing. Much more extreme were the Maiyuchi 20x100 binoculars that I once had – it was mandatory to have these mounted, and the setup/take down hassle was almost as complicated as a small telescope. What was I to do ..... ???

Well, I started to take notice of image-stabilized binoculars – they promised the ‘grab-and-go’ observing experience that I was looking for, so I started to read up on them. There was a very good review written in the July 2000 edition of ‘S&T’ which – along with everything else that I had been reading – gave high praise to the Canon models of image-stabilized binoculars. The closest that I came to a real live human being was an acquaintance of Bill Dillenges who had just purchased a pair and had told Bill that they were excellent binoculars. Peer pressure .....!! I finally succumbed, and I traded in my Fujinon 7x50s plus cash for the Canon 15x50s.

So what are the specs on these? The model that I ended up with – 15x50s – have ED objectives, 15mm eye relief, a 4.5 degree FOV, and weigh 2.7 pounds. They sell for around \$950 new. There is an 18x50 model that sells for around \$1200, but the FOV here is 3.7 degrees. Hmmm – I figured that I’d settle for the wider FOV and save myself \$350. The weight of these is very reasonable – not much different from the Fujinon 7x50s. And there is no need to worry about the ED objectives getting scratched – the objectives are protected from the elements by clear optical windows, so what you see from the outside is the optical window and not the ED objectives. By the way, they use 2 x AA batteries, and these should provide a 2 to 3 hours of observing time with typical Arizona temperatures. They are designed to compensate out any movements less than 0.7 degrees, which means that they eliminate all low level ‘shakes’; moving the unit by more than this distance will result in movement in the eyepiece views.

Let me digress for a moment and talk a little about the magnification/aperture combination. There is a body of opinion that states that the best way to rate how much you will see from a given binocular – the visibility factor – is to multiply the objective size by the magnification. Bigger objectives give greater light grasp, while higher magnifications will let you see fainter objects as well as darken the sky glow. So my (excellent) Fujinon 7x50s would score 350 (7 multiplied by 50). A pair of 10x50s would score 500, the higher score being the result of their ability to show fainter objects & to lessen the sky glow. Using this rating system, the Canons would score 750. Do I agree with a doubling of the score versus the Fujinon 7x50s? I don’t think its that extreme, but having said that, there is no way that I would trade back to the Fujinons – the Canons are far superior for what I use them for. Conventional wisdom states that a mount is required to do serious

binocular observing above 10x due to the ‘shakes’, and this is where the image stabilization factor kicks in – it raises this 10x ‘mount’ threshold. And rating them to the Maiyuchi 20x100s? Well the Maiyuchi’s would score 2000, and that I’d agree with – AS LONG AS THERE IS NO PENALTY FOR BEING TRIPOD MOUNTED. I have never seen such perfection in a binocular as I did with my Maiyuchi’s. But the need for a tripod/mount assembly of telescope caliber just did me in – it was just too much hassle for me, despite the top class optics.

Let me list some negatives. Firstly, I do not like the eyecups – they are uncomfortable and too high, with the result that the image is vignetted (at least for my eyes); so I simply observe with the eyecups turned down. Secondly, the image seems to get a little blurred if the unit is not held steady – I believe that this is the consequence of the prisms moving around as they try to keep the image steady. Which leads to my final observation – I have never been able to achieve a truly stabilized image; while the ‘shakes’ are totally eliminated, in its place I get a gently oscillating image. A rock steady image can be achieved by adopting one of two techniques – either sitting on a chair with my head resting on the back, or by leaning against a vehicle, or a street light, or something similar. Now let me quickly add to any comments out there about how it is possible to get a steady image that way with regular binoculars – the magnification here is 15x, and I personally have never been able to use props as simple as those just stated to get a steady image at that magnification. And don’t forget that I am no spring chicken – I’m not as physically robust as I used to be as to when I once could hold 2 to 3 pounds perfectly steady for an extended period of time.

The positives outweigh the negatives by far – yes, I am really impressed. Firstly, let’s forget the stabilization for a moment and focus on the optics – they are crystal clear; as stated earlier, the objectives are made of ED glass and deliver very sharp images – at least as good as if not better than the Fujinon 7x50s. And the focusing mechanism is a dream – very smooth and very solid. The portability of this unit is its biggest asset, at least for me. I am now truly able to grab these binoculars at a moments notice, walk around with them hanging from my neck, and ‘just point and observe’ at random very quickly with no fuss – and get sharp images and high magnifications into the bargain!

**For more information see:**

[http://www.eastvalleyastronomy.org/EVAC/reviews/image\\_stabilized\\_binoculars.htm](http://www.eastvalleyastronomy.org/EVAC/reviews/image_stabilized_binoculars.htm) -- for actual viewing experiences. ed.

## Riverside Telescope Maker’s Conference

**May 23, through 25, 2003**

<http://www.rtmc-inc.org/>

The 35th Annual RTMC Astro. Expo will be held Friday, May 23, through Sunday, May 25, 2003 (Memorial Day weekend).

Excellent maps and directions are available at:

<http://www.rtmc-inc.org/Maps%20and%20Directons.htm>

Location: Longitude 116° 45' 15" West, Latitude 34° 13' 50" North, Altitude 7,600 Feet

The 2003 theme is "Building Your Own Observatory."

## Calendar of Events by Howard Israel

<b>Date</b>	<b>Event</b>	<b>Location</b>	<b>Notes</b>
<b>Wed. April 9</b>	<b>EVAC Meeting</b>	<b>Arizona Science Center</b>	<b>7:30 PM Prof. Jeff Hester – ASU Astronomy Dept.</b>
Fri. April 11	Gilbert Star Party	Gilbert Library	7:00 PM setup
Fri. April 18	Beginners Lab	Dave Coshows' Home	7:30 PM
Sat. April 19	Local Star Party	Boyce Thompson	Sunset 7:29 PM
<b>Sat. April 19</b>	<b>Adopt-A-Highway Cleanup</b>	<b>Florence Junction</b>	<b>Details to be announced</b>
<b>Tue. April 22</b>	<b>SCC Star Party</b>	<b>Scottsdale Comm. College</b>	<b>7:00 setup</b>
Sat. April 26	Deep Sky Star Party	Vekol Road site	Sunset 7:36 PM
<b>Sat. April 26</b>	<b>Sentinal-Schwaar Star Gaze</b>	<b>Sentinel, Arizona</b>	<b>Sunset 7:36 PM</b>
May 1 – May 4	Desert Sunset Star Party	Kartchner Caverns SP	<a href="http://chartmarker.tripod.com">http://chartmarker.tripod.com</a>
Sat. May 3	Bonus Deep Sky Star Party	Vekol Road site	Eyepiece Shootout
Fri. May 9	Gilbert Star Party	Gilbert Library	7:30 Setup
<b>Fri. May 9</b>	<b>Boulder Creek Elementary School</b>	<b>Same</b>	<b>7:00 Setup for Star Gaze</b>
<b>Sat. May 10</b>	<b>US Naval Observatory Tour</b>	<b>Flagstaff, Arizona</b>	<b><a href="http://www.nofs.navy.mil/visiting/direct.html">www.nofs.navy.mil/visiting/direct.html</a> Tour @ 11:00 AM</b>
Wed. May 14	EVAC Meeting	SCC	Guest Speaker to be announced.
<b>Thu. May 15</b>	<b>Total Lunar Eclipse</b>		<b>Penumbral eclipse begins at 01:05 UTC</b>
<b>Sat. May 17</b>	<b>Kids Astronomy Day</b>	<b>Arizona Science Center</b>	<b>Details to be announced</b>
<b>Sat. May 24</b>	<b>Friends of BTA Star Party</b>	<b>Boyce Thompson</b>	<b>Sunset 7:58 PM</b>
May 30, 31	Northern Arizona Star party	Prescott, AZ	Sponsored by Prescott Astronomy Club
Fri. May 30 – June 1	Mormon Mountain Star Stare	Mormon Mountain	Sponsored by Coconino Astronomical Society
Sat. May 31	Deep Sky Star Party	Vekol Road Site	Sunset 8:02 PM
June 5 – 8	Lowell Star Party	Lowell Observatory	<a href="http://kraken.lowell.edu/lsp/">http://kraken.lowell.edu/lsp/</a> for more information
June 11	EVAC Meeting	Scottsdale Comm. College	Speaker – TBA
June 21	Local Star Party	Boyce Thompson	Sunset 8:12 PM
June 21 – June 28	Grand Canyon Star Party	Grand Canyon N/S Rim	<a href="http://www.tucsonastronomy.org/gcsp.html">http://www.tucsonastronomy.org/gcsp.html</a>
June 28	Deep Sky Star party	Vekol Road site	Sunset 8:19 PM
Wed. July 9	EVAC Meeting	SCC	Guest Speaker to be announced
Fri. July 11	Gilbert Star Party	Gilbert Library	7:30 PM setup
Fri. July 18	Beginners Lab	Dave Coshows' Home	7:30 PM
Sat. July 19	Local Star Party	Boyce Thompson	Sunset 7:36 PM
Sat. July 26	Deep Sky Star Party	Vekol Road site	Sunset 7:42 PM

# The Backyard Astronomer

By Bill Dellinges

## Visit to Sunglow Ranch

Dark skies? A remote guest ranch in southeastern Arizona sympathetic to stargazers? Sounded good to me. A couple of fellow EVAC members had told me about Sunglow Ranch, about 220 miles southeast of Phoenix. I finally, after a year or so, booked a short stay at the ranch to air out my head, get in some stargazing, and generally give my wife Lora and myself a special treat away from the madness of Valley life.

I say special treat because it's not exactly cheap. Before the Ranch's recent renovation and switch to a full American plan recently, a room went for \$69/single, \$89/double per night. The rate, which now includes breakfast, afternoon tea, and dinner, is \$119/single, \$181/double per night. Some may find these rates a bit high, some may not. While my pockets are not deep, I found our stay there so relaxing, that our 2 night bill of \$362 (which includes taxes and gratuities) seemed well worth the cost. By the way, I noted horseback riding rental has been discontinued at the ranch.

The Ranch, about 50 miles southeast of Wilcox, sits on 400 acres bordering on Coronado National Forest. One can get here via I10 to Wilcox or U.S. 60/70/191 via Safford to Wilcox. Then drive southeast on 186/181, about 45 miles to "Sunglow" shown on some Arizona maps though as far as I know, there is no Sunglow! When 181 turns to dirt, make a left on Turkey Creek Road and drive east till you see the ranch's sign. Chiricahua National Monument is 15 miles north on highway 181 (don't miss this monument-it's stunning). This is a fairly small Mom and Pop operation. There are about 16 rooms, Santa Fe style, all nicely appointed and comfortable. Our room had a small refrigerator and microwave oven. Some rooms have a full kitchen. Each room has a private porch area with chairs. The dining room is very charming. Executive chef Jack Gramento prepares gourmet meals here with four entrees to choose from on the breakfast and dinner menus. The dinners include soup, salad, and desert. The service is friendly and efficient.

Ranch manager Susan Nunn, a chipper, vivacious person, made our stay a pleasant one and answered our myriad questions.

Bird feeders abound and draw tons of Red Winged Blackbirds, Mexican Jays, and Hummingbirds. I spotted one


Acorn Woodpecker.

Stargazing: The ranch has built three cement pads (12'x10') for telescopes about 50 feet south of the cabins. There are power outlets on them. Now the bad news. The lights from walkways, cabins, and landscaping blast you from behind as you face south. They cast shadows on the pads. I avoided them by not facing north. At 9 pm they all went off. The next day Susan told me she turned them off for me and that normally a timer switched them off at 11 pm. Kind of a screwy situation, wouldn't you say? A while back, I was told on the phone they made a special effort to set aside a dark area for their stargazing clientele. Considering I heard staff refer to some big names in astronomy staying there for gazing and astrophotography, I was puzzled as to why the above lighting problem existed. I guess you have to do your observing late, find a dark area elsewhere, or have staff turn off the lights early. Susan mentioned she didn't want to turn out lights till she thought most guests were safely in their rooms later in the evening (?). There is a ridge of mountains to your south, maybe 10-12 degrees high. I didn't find that a problem, indeed, they're beautiful by day with some patches of snow here and there. I must admit I was unprepared for the cold of late March.. This place is at 5300' elevation. I froze to death at night. Even at day I needed a light jacket. I'd suggest coming during a warmer month. There is a modest light dome due south from Douglas. This is why Jack Newton chose Portal over this area for his little astro-community. Still, it's dark here. I could see all the Little Dipper stars and M46/47 with the naked eye. Looking west I spotted what at first was perhaps another atrocious ranch light, maybe a spot light shining straight up. No. It was the zodiacal light, brighter than I've seen it since a February trip to Mauna Kea (when I thought it was light pollution from Kona). It rose up to the zenith punching its way through the Milky Way. Where it crossed the M.W., it reminded me of a polar ring galaxy!

Notwithstanding the above light issues, I highly recommend Sunglow Ranch for those looking for a nice quiet, relaxing getaway (and maybe a little stargazing).

<http://www.sunglowranch.com/>

1-866-786-4569 or 1-520-824-3334




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# On The Horizon Comming Astronomical Events and Activities

## Lowell Observatory Star Party June 5-8, 2003

Lowell Observatory will host its first-ever multi-day Star Party, where enthusiasts from around the country will gather for world-class telescope viewing and other adventures in astronomy.

Held June 5-8, 2003, the Lowell Star Party will feature some of the best that Flagstaff has to offer: a heritage rich in astronomical discovery, clear skies, and access to tourist attractions, restaurants, shopping, and more.

Lowell Star Party sponsors include some of the biggest names in astronomy, including Astronomy Magazine, Celestron, and Meade Instruments Corporation. "Star party attendees have an opportunity to interact with some of the heaviest hitters in astronomy," says Russell Tweed. "Several sponsors also will be donating products to be given away to lucky star party participants."

Evening viewing parties will be based at the Arizona Snowbowl ski resort, Highway 180 and Snowbowl Rd. "Situated at an elevation of 9,300 feet, Snowbowl is an ideal location for night sky observing," says Tweed. "The high-elevation observing area coupled with Flagstaff's reliably clear skies will make for an exciting event."

During the day, star party participants can choose from a variety of activities including tours of Meteor Crater, the U.S. Naval Observatory, the new Shoemaker Astrogeology building at the U.S. Geological Survey, and Lowell Observatory's own Anderson Mesa research site. Attendees also may attend daytime scientific presentations in the Steele Visitor Center and the Rotunda Library at Lowell Observatory's historic campus, 1400 W. Mars Hill Rd.

Many recreational activities also are available to those wanting to explore Flagstaff and the surrounding area. Nearby attractions include the Grand Canyon, Oak Creek Canyon, the Museum of Northern Arizona, the Riordan Mansion, the Arboretum and many more.

During the star party, attendees also may participate in "Astronomy Safaris," exclusive, behind-the-scenes tours and events only for small groups. The daytime safari, called "Behind the Scenes at Lowell," gives participants access to areas of the observatory's historic campus not ordinarily available to the public.

Nighttime "Astronomy Safaris" allow participants to choose between a private viewing session on Mars Hill or research observing at Anderson Mesa. The "Private Viewing" safari includes 90 minutes of exclusive telescope viewing through the historic 24-inch Alvan Clark refractor led by an experienced member of the Lowell staff. During the "Research Observing" safari, groups will join professional astronomers as they gather

images and data using one of many research telescopes on Anderson Mesa. Both nighttime safaris are risk-free; fees will be refunded if it is cloudy and observing is obstructed or telescopes are not in operation for any reason.

A number of lodging options are available. For those interested in staying at the observing site, Arizona Snowbowl has 130 camping/telescope spaces, which can be booked on a first-come, first-served basis with the online registration. Little America Hotel, La Quinta Inn and Sleep Inn are offering discounted accommodations for Lowell Star Party registrants; when making a reservation, ask for the Lowell Star Party room block.

The registration fee for the Lowell Star Party is \$60 (\$40 for Friends members) for the full 4-day event and \$30 for single-day registration (\$20 for Friends members). Star party attendees will also receive a 20 percent discount in Lowell Observatory's gift shop.

For complete event information and to register for the Lowell Star Party, visit <http://www.lowell.edu/Public> then click on "Lowell Star Party" at the top of the page.

**Note:** For general information, please contact Russell Tweed by phone at (928) 774-3358 ext. 267 or via email at: [tweedr@lowell.edu](mailto:tweedr@lowell.edu). For questions or problems regarding online registration, please contact Jeff Hall by phone at (928) 774-3358 ext. 227 or via email at [jch@lowell.edu](mailto:jch@lowell.edu).

## Grand Canyon Star Party 21-28 June 2003 South and North Rim

web site: <http://www.tucsonastronomy.org/gcsp.html>

Further Info:

For South Rim information, write to:  
Dean Ketelsen  
1122 East Greenlee Pl.  
Tucson, AZ. 85719  
520-293-2855  
[ketelsen@as.arizona.edu](mailto:ketelsen@as.arizona.edu)

For North Rim information or registration, write to:  
Deloy Pierce  
P.O. Box 674  
Farmington, UT. 84025-0647  
801-451-8215  
[grndcnynstarsnr@utah-inter.net](mailto:grndcnynstarsnr@utah-inter.net)

South Rim Lodging:  
All Rim Lodging or Trailer Village (Xanterra) 303-338-6000  
This number is often very busy, FAX them at 303-338-2045 or  
online at: <http://xanterra.com/>

# 2003 Messier Marathon Report by AJ Crayon & Jack Jones

The just concluded Messier Marathon was another in a long string of successes - yes perhaps I'm just a bit biased, but here are the results. You decide. The marathon was held at our usual site 30 miles outside of Arizona City, Arizona.

By sunset there were approximately 80 vehicles. The final results show 56 participants turned in lists of their observations. Fourteen had found all 110 and another dozen-missed only M74. That was the biggest problem this year - observing M74. In twilight it was deeply embedded in zodiacal light, was one of five objects within 10 degrees of the horizon at evening twilight and one with the lowest surface brightness. It is no wonder this is one of the more difficult objects to observe in the Messier Catalogue.

Observers were cautioned to locate M74 and stay there observing for a while, waiting for a moment of reasonable seeing as twilight deepened. Many did so and were rewarded, especially those that used a little to moderate power. The smallest telescope to catch this most difficult one was Doug Lang in a 4" refractor. Dawn Schur also located it in her 8 inch f5 Dobsonian. She is the first lady to observe all 110 objects. Rosie Dodder, teamed with her husband and completed this in 2001; but Dawn did so without team assistance.

Nearly everyone missed M74, except those with 110, and Maurine Hoffman who missed a number of the morning risers.

Other folks of interest were Carter Smith from the Tucson Amateur Astronomical Association, who found 106 objects in his 8" Dobsonian. Carter is 10 years old, one of the youngest observers to find a large number of objects.

Another, Rick Tejera, used two different telescopes and found a different number of objects for each. We may have to review our ground rules for the future on this topic. He located 101 objects in the f/5.8 ETX60 but in his 8 inch there were 109 found.

The always-in attendance Hazel Lawler found another high count of 105 in her 20" Dobsonian located near her very large and nice looking trailer. Could hear her "oohing" and "ahhing" about her observations all night long.

Then Andrew Cooper could be heard giving hints, directions and assistance to a number of observers for locating a number of objects.

David Ingram, from Washington State, attended his second marathon, the first being 2002. This year he fared better, finding 63 objects.

Space artist Joe Bergeron located 109, same as myself - both of us being unable to observe M74.

First time marathoners Scott Saari, his daughter Chelsea and Alan Scott commented on how much they learned from this experience.

There were participants from out of state and included California, Colorado, Ohio, Michigan and Washington. You can see their names on the final standing list.

We can't discuss a marathon without mentioning the weather. Just before sunset all began eyeing a small cloud band just above the western horizon, but fortunately for us it dissipated before deepening twilight - perhaps adding to the difficulty of observing M74. After that it was clear all night long albeit on the cool side by desert standards. That means the temperature was around 35 deg. F just before astronomical twilight.

A break down by club members shows there were 17 from

East Valley Astronomy Club in Scottsdale, AZ; 16 from Saguro Astronomy Club in metro Phoenix, AZ with five others holding dual membership in both clubs. From Tucson there were another seven folks. Nine were from out of state and there were a scattering of others with no club affiliation.

Based on the vehicle count near sunset there were a little over 100 folks, indicating about half did the marathon and the others either observed from their own lists or did some photography or imaging.

Unfortunately I didn't get to do much socializing this time. I'll try to do better next time!

One final note of great importance, we should thank Ray Farnsworth, the landowner for permitting our use of his land for this event.

You may view the published, official results on SAC's website:

<http://www.saguroastro.org/content/2003messierresults.htm>

AJ Crayon, e-mail [acrayon@mindspring.com](mailto:acrayon@mindspring.com)

Jack Jones, e-mail [spicastar@cybertrails.com](mailto:spicastar@cybertrails.com)

Messier Marathon Coordinator

Saguro Astronomy Club

## USNO Observatory Tour Saturday, May 10, 2003, Flagstaff, Arizona Howard Israel EVAC Events Coordinator

Our tour to this observatory should prove to be an interesting and exciting visit. The observatory consists of two locations; the main site, which we will tour, is located about 5 miles west of Flagstaff on old Route 66. Driving directions can be found at <http://www.nofs.navy.mil/visiting/direct.html> The other site, Anderson Mesa is located about 15 miles south of Flagstaff. This location is home to the Navy Prototype Optical Interferometer (NPOI) where groundbreaking research is being conducted in combining the light gathering power of several telescopes.

Several telescopes will be seen on our tour including:

1.55-meter Kaj Strand Astronomical Telescope

1.3-meter telescope

1.0-meter Ritchey-Chretien Reflector Telescope

0.2-meter Transit Telescope (FASTT)

The USNO Flagstaff Observatory mission is to analyze, and interpret such astronomic and photometric dark sky observations as are required to fulfill the mission of the US Naval Observatory. Some of the on-going projects include the Parallax Program, Wide Angle Astrometry, PMM Program and the Sloan Digital Sky Survey. Staff astronomers will be available during the tour to answer any questions we may have about these programs.

The tour is open to any EVAC member and you are encouraged to bring family and friends. Estimated driving time is about 3 hours from Phoenix. The tour will begin at 11:00 AM so be sure to give adequate travel time. Estimated tour time will be about 2 hours. Since the observatory is located less than 5 miles from downtown Flagstaff, there are plenty of restaurants available for lunch after the tour. **You might want to combine this tour with a visit to the Lowell Observatory. (see note on page 9 - for more information).** Hope to see you all at the USNO tour.

## EVAC Meeting Minutes April 9, 2003 Tom Polakis, Secretary

The April meeting was a special occasion held at the Dorrance Planetarium in the Arizona Science Center. President Peter Argenziano began with brief introductions and announcements.

We went right in to the main speaker, Arizona State University's Jeff Hester, whose talk was entitled "Origins: A Brief History of Structure In The Universe." Dr. Hester explained such concepts as light travel times, conservation of angular momentum, and redshift to explain how physical laws work at all scales. It all happens because physics works.

The talk was followed by EVAC's Howard Israel, who we can thank for getting us in the Science Center. His main program was called "Cosmic Coasters", which utilized the planetarium's facilities.

### Free Classified Ads (Wanted & For Sale)

Non-commercial advertisements for Astronomical equipment, books, computers, or software — Wanted or For Sale — will be accepted from current EVAC members, (another good reason to renew your membership, if you have not already done so).

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.

**For Sale: Bogen 3-way Pan Tilt Head model 3029. Wt 2.2 lbs. Can support 13.2 lbs. New 11/02. Used once. \$35.  
Televue 20mm 1 1/4" Plossl. New in box, never used. \$80.  
Bill Dellenges 480 983 6651. (March, 03)**

Ads can be emailed to: [john-cathy@cox.net](mailto: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."

**It was probably first in the night of March 23/24, 1985 that Gerry Rattley from Dugas, Arizona, completed the list and hunted down all 110 Messier Objects in one night**

<http://www.seds.org/messier/xtra/marathon/marathon.html>

## Afterthoughts about Competitive Astronomy

Cathy and I attended the 10th annual Messier Marathon at Farnsworth Ranch last Saturday night. The whole idea of trying to view all 110 Messier objects on one of the few nights each year when they are all visible between dusk and dawn had never appealed to me. It didn't seem much like science or astronomy and besides, both my telescopes are computer controlled "go-to" scopes so it didn't seem like it would even be a challenge. Too easy; a shooting fish in a barrel, kind of thing.

Well, I was surprised. Peering around in the freezing darkness (the temperature fell to 32 degrees), under an otherwise spectacularly beautiful Arizona night sky, and trying to spot the same objects which had tantalized an 18th century French comet hunter was surprisingly difficult, and a lot of fun! I didn't do it very well. With my limited skill and the fact that a mid session nap lasted more than an hour too long I "bagged" only 67 objects.

Racing only for the score, by midnight I had found most of the objects listed on the first of the two page list. Trying the others, my "go-to" scope patiently informed me they were "below the horizon". Nothing to do but wait. Even seasoned Messier hunters frequently squeeze in a mid-session nap. When I awoke at 3 A.M. the warm sleeping bag seemed particularly inviting, but by 3:15 I was at it again. Wow! All those objects which had been "below the horizon" are now high in the sky. Rush, rush! What's next? Go to it -- do I see it? Ah yes, there it is; nudge the scope for a better centered view. Pretty thing; an open cluster showpiece. This Messier Marathon is like a fast train ride through a beautiful countryside. I'm seeing many things, for the first time; things I'll want to visit more leisurely later.

Then, a whole string of faint galaxies. My little scope and aging eyes are overmatched. Do I see it? What exactly should I be seeing here? Do I see enough to justify an honor system check mark? No, I guess not. Why didn't I bring my bigger 'scope with its greater light gathering power? Too lazy! I admit it. I didn't expect to really get involved with this. But now I'm having fun and I do wish I'd brought the larger 'scope!

Finally, on the list; another string of bright clusters! Now I'm going again. See it, check it off and on to the next one. Resist the temptation to linger over the pretty ones. Go, go. But now, the Eastern horizon is brightening. No, not dawn! Not yet — I've got too many more to see. But, moment by moment, as I watch, dawn's glow fades the beauties of the night from my view. Soon there's no point in looking any longer — they're all gone. An in-between time. Too light to see anything in the sky, but not yet light enough to really see the surrounding desert. Like waking from a dream to find the night's treasures evaporated in your hand. I count up my little list, sign my name and turn it in. This year's Messier Marathon is history. But now a ray of dawn sunlight catches the top of Kitt Peak far to the South, lighting the white Astronomy structures there. And soon it is early sunrise on the desert and everything is lovely and cool and beautiful. Life is good!

John Matthews

An excellent index of the Messier objects can be found at:

<http://www.seds.org/messier/data2.html>



I found the following poem in the March 2003, issue of the Newsletter of The International Dark-Sky Association (IDA). It is reprinted here with the permission of the author.

John Matthews  
EVAC newsletter editor

## Used Star Lot

By

*Ken Wilson, kwilson@smv.org*

One clear and moonless, night  
I stepped out to see star-filled sights.  
But long before my pupils had dilated,  
I saw the dark sky newly tainted,  
By a garish glow, bright as the morning  
sun.

So powerful the faint-hearted stars did run.

I wondered what it could possibly be,  
That had stolen the starry night from me.  
So down the lane I did go,  
Because I really wanted to know,  
Why so much bright light,  
Had o'er taken peaceful night.

It didn't take long to find,  
The source of light so unkind.  
For on a nearby corner plot,  
Stood a new built used car lot.  
On this acre of glare,  
Were rows of cars to compare.

Although its office was closed tight.  
All its stock was alight.  
As I glanced at each one,  
Their names left me quite stunned.  
Row after row,  
Were labels we all know.

A shiny red Galaxie,  
Next to a silver Mercury.  
Near a Saturn two door;  
And a Vega—four on the floor.  
I passed by a Subaru.  
It was almost brand new.

How sadly ironic.  
It was almost comic.  
To see Nature's cosmic keepsakes  
Outshone by their auto namesakes!

*Copyright 2002 by Ken Wilson,  
used with permission.*

## Late Breaking News!

For those of you who are planning to take part in the morning tour of the U. S. Naval Observatory, on Saturday, May 10th, it will also be possible to tour Lowell Observatory's research facilities at Anderson Mesa during the afternoon.

We will meet our guide, Dr. Robert Millis (director of Lowell Observatory) at Anderson Mesa at 1:30 PM for the tour. Maps and driving directions will be provided to those who want them.

Anderson Mesa is about 12 miles SSE of Flagstaff, on Lake Mary Rd. and is the site for most of Lowell Observatory's major telescopes and for the Naval Prototype Optical Interferometer (NPOI).

This is a "Must Do" tour!

### Ten Commandments for Amateur Astronomers

1. Thou shalt have no white light before thee, behind thee, or to the side of thee whilst sharing the night sky with thy fellow stargazers.
2. Thou shalt not love thy telescope more than thy spouse or thy children; as much as, maybe, but not more.
3. Thou shalt not covet thy neighbor's telescope, unless it exceeds in aperture or electronics twice that of thy wildest dreams.
4. Thou shalt not read "Astronomy" or "Sky & Telescope" on company time, for thine employer makes it possible to continue thine astronomical hobby.
5. Thou shalt have at least two telescopes so as to keep thy spouse interested when the same accompanies thee under the night sky or on eclipse expeditions to strange lands where exotic wild animals doth roam freely.
6. Thou shalt not allow either thy sons or thy daughters to get married during the Holy Days of Starfest.
7. Thou shalt not reveal to thy spouse the true cost of thy telescope collection; only the individual components, and that shall be done with great infrequency.
8. Thou shalt not buy thy spouse any lenses, filters, dew shields, maps, charts, or any other necessities for Christmas, anniversaries, or birthdays unless thy spouse needs them for their own telescope.
9. Thou shalt not deceive thy spouse into thinking that ye are taking them for a romantic Saturday night drive when indeed thou art heading for a dark sky site.
10. Thou shalt not store thy telescope in thy living room, dining room, or bedroom, lest thou be sleeping with it full time.

# Scottsdale Community College Campus Map



## Student Center (SC)



Because of the growing size of our club we have been given the opportunity to frequently use a larger room at Scottsdale Community College.

Here is the EVAC Monthly General Meeting Schedule for 2003 with the room assignment for each meeting. (SAVE THIS NOTICE!)

May 14th - Turquoise Room  
Room #164 in the Student Center (SC - 164)

June 11th - Room PS - 172

July 9th - Turquoise Room  
Room #164 in the Student Center (SC - 164)

August 13th - Turquoise Room  
Room #164 in the Student Center (SC - 164)

September 10th - Turquoise Room  
Room #164 in the Student Center (SC - 164)

October 8th - Room PS - 172

November 12th - Turquoise Room  
Room #164 in the Student Center (SC - 164)

December 10th - Turquoise Room  
Room #164 in the Student Center (SC - 164)

Monthly meetings are held on the second Wednesday of the month, beginning at 7:30 PM

**The Turquoise Room (SC #164)**  
is located in the Student Center (SC Building). Parking lots A and B are the most conveniently located for when our meetings are held here.

**Our old meeting room (PS #172)**  
is located in the PS Building. Parking lots E and G are the most convenient when meetings are held here.



**STARIZONA**  
ADVENTURES IN ASTRONOMY & NATURE

5201 N. Oracle Rd.  
Tucson, AZ 85704  
(520) 292-5010

# 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
- \$30.00 /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 very new. As of this writing only one Star Party has 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 is still being evaluated and seems to have some privacy advantages over the FJ site.

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

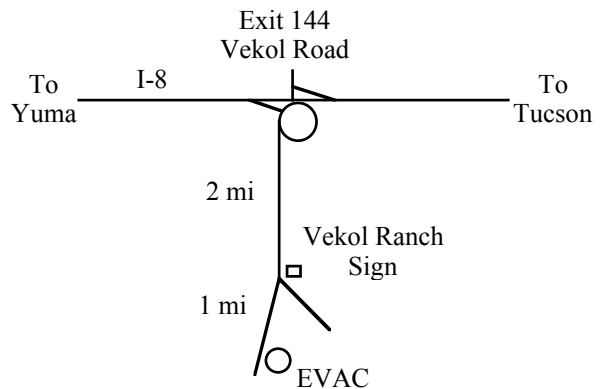
**How to get there:** Drive East on US 60 past Florence Junction for both sites. About 3.7 miles East of Florence Junction (after crossing railroad tracks) you will see a (second) flagpole on your right. Turning right (South) here and following the dirt road for 0.6 miles you will reach the FJ #1 site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

Diana Jane  
(480) 833-2002

**TREASURER**

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(480) 922-3845

**SECRETARY**

Tom Polakis  
(480) 967-1658

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gfinnie@kam-az.com

**NEWSLETTER**

John Matthews  
john-cathy@cox.net

**COORDINATOR**

Silvo Jaconelli  
(480) 926-8529

**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 Stanley Bronstein. PO Box 2202 Mesa AZ 85214-2202.

**Address Changes:** Contact Stanley Bronstein. 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 **either** Room PS 172 (Physical Science Bldg.) or SC 164 (Student Center Bldg.). See maps and meeting schedule on page 10. of this newsletter. **•• SAVE PAGE 10 ••**

**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 Gary Finnie a: gfinnie@kam-az.com

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



**East Valley  
Astronomy Club**

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

**EVAC Homepage:  
[www.eastvalleyastronomy.org](http://www.eastvalleyastronomy.org)**

**Reminder: May EVAC Meeting  
Wednesday, May 14, 2003**

Location: Room #164 in the  
Student Center, (SCC) @ 7:30PM

**June EVAC Meeting  
Wednesday, June 11, 2003**

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