

East Valley Astronomy Club

August 2000

www.eastvalleyastronomy.org

Scottsdale, Arizona

President's Comments

By Silvio Jaconelli

It's that time of the year – the summer doldrums, when not much of anything is happening. The Monsoon came early this year, so it's now time to re-arrange our astronomy literature, clean our eyepieces, wash our mirrors, and in general just wait for dry weather.

The Lowell tour for October has relatively few members' sign up, so Chuck Crawford will be deciding soon the fate of this trip.

I've been getting more requests for help from beginners, but due to the weather, it will be September before the beginners' lab and mentoring programs can be re-started.

Nominations for officer positions will be taken at the September meeting – which is only 5 or 6 weeks away. As I announced at the July meeting, we are soliciting volunteers for these positions so please contact me (602-244-4699, or s.jaconelli@onsemi.com) if you have any interest in serving the club in this way.

Martin Bonadio, in jest, suggested that we include a Newsletter centerfold article on his equipment. Well, I actually thought that that was an excellent suggestion, as an aid to new members to give them some idea as to what equipment we have, and why they have them. So I have asked Martin to get the ball rolling by being the first member to write on this. Watch for it next month, and thanks Martin!

Let me end with another call for Newsletter articles – please send articles to Martin Bonadio (mabastro@aol.com). Every one of us has something that will be of interest to the membership at large, be it atechical advice, observing articles, humorous incidents, etc. So please send in whatever is on your mind – you'll find it fun!

Vice Presidents Comments

By Chuck Crawford

AUGUST GUEST SPEAKER

Our speaker for August will be Dr. David Burstein, astronomer at ASU. He collaborates on studies of the large-scale structure of the universe; the structure and evolution of our Galaxy; of other galaxies and of clusters of galaxies; and the evolution of stars. The ultimate goal of these studies is to gain an understanding of the relationship between the evolution of the universe and the formation and evolution of galaxies.

The title of his talk is "The Wide Wonderful New Universe". Lots have been happening the past two years to both increase, and obfuscate, our understanding of the Universe. He will summarize the issues as he sees them, including new Balloon results, and let us in on what is to come.

EVAC & Other Events: 2000

	New Moon	Meet	Local	Deep Sky	Other
Aug	29 th	9 th	19 th	26 th	Stellafane
Sep	27 th	13 th	23 rd	30 th	9/22 – 9/23 N. AZ Star Party 9/28 – 10/1 Enchanted Skies Star Party Socorro, NM
Oct	27 th	11 th	21 st	NA	10/7 Lowell Tour 10/21 SAC/EVAC Picnic 10/28 All-AZ Star party – AZ City
Nov	25 th	8 th	18 th	NA	Elections
Dec	25 th	13 th	16 th	23 rd	12/9 Christmas Party

This is also where the membership, ASU astronomers, others and myself come into play.

DINNER WITH OUR GUEST SPEAKER

Once again we will be meeting at 5:30 pm at the Black-eyed Pea on Indian Bend Road in Scottsdale. Across from the fountains in the Pavilions. For those who haven't as yet joined us feel free to do so. We have ongoing reservations but please let me know if you will join us so I can tell the manager how many to expect. For those who have been attending regularly I already have a count. 480-985-8824 or astroc@mindspring.com.

NURO PROJECT UPDATE

I was pleased with the response from several members who showed interest in being a part of this undertaking. See July newsletter for details. A question did arise that this project was directed at Ph.D's only. Not true as I am seeking input and participation from anyone who has an interest. It is necessary to have some Ph.D. participation because NURO is a consortium of colleges at the present and there must be some educational value to the membership institutions.

I have received interest from an ASU astronomer to participate, anticipate several more and perhaps yet receive the blessing and assistance from ASU but this is not a limited project. The only stipulations are that any research project developed must show how undergraduate college students could be involved in that research, the findings of that research must be shared with the member institutions and it must be of value to the professionals those members contain. There is also agreement that individual research may be done. Each member institution must also attempt to contribute to grant finding.

The facility is a professional one used by professional astronomers containing a 31" telescope complete with a spectrograph, photometer, back lit CCD, fully computerized with a NAU technician and guaranteed telescope time by quarterly reservations. It is located on Anderson Mesa and belongs to Lowell.

I have been asked by the Director to provide a proposal for the present membership to vote on for admittance that answers the following:

1. How would undergraduate students be involved since my non-profit corporation has none? This is where ASU may come into play and certainly NAU locally.
2. What kinds of science would be done? This is where the membership or others, ASU astronomers and myself come into play.
3. Provide a brief background of the participants as it relates to astronomy or other applicable fields.

The cost to the corporation for membership will be \$ 2,600 a year and probably increase yearly and this is NOT a call for money from the members of the club. Donations are acceptable as this is a non-profit corporation but funding that amount could come in various ways such as grants, membership dues to the corporation, sale of time on the telescope, individual donations, which are tax deductible, or possibly a sharing with ASU.

The immediate concern is to find participants interested in providing expertise and help answer the proposal questions to bring the matter to the voting stage and gain admittance into the consortium. Being a non-profit corporation joining with educational institutions does present some obstacles but none that cannot be overcome in a proper proposal and working within the educational framework.

Anyone who has an ongoing research project, one that they have always wanted to do, knows someone who does or just wants to lend their expertise in an advisory capacity is welcome. All comments are encouraged. Feel free to contact me for further details @480-985-8824 or astroc@mindspring.com!

MEADE DEALER STATUS

In last month's newsletter I stated I was an authorized dealer that I was at the time. Since then Meade has decided that unless one has a retail store they can no longer represent them. I was told that even Roger Tuthill could not do so. Can you imagine that? Talk about sales restraints!

I believe this is a rather hypocritical view since Meade started on a kitchen table, in a one-bedroom apartment with a post office box and \$ 2, 500 in the 70's. It is my opinion that product should be demonstrated as it was intended to be used i.e.: in the field and not from an inanimate object sitting in the middle of a showroom collecting dust, if one is there at all, and viewing the ceiling, a clock on a wall, a sign or leaf on a tree outside the window. But that is just myself, as I don't buy things I don't see in operation under actual conditions.

I also do not think a retail store has as many customers coming through in a month compared to star parties per month where Meade has been represented by a Starfinder, ETX 90 and 125, and LX-200 8", 10" and 12" telescopes in actual operation. Since I have yet to see a retail store providing this at any star party I do think Meade could really improve the way that they present their product. This I have addressed to the corporate officers.

Therefore I will not, for the present, be able to take any future orders for product unless there is a change of stance as taken by Meade.

LOWELL TOUR

We did not have enough signups for the big bus and the cost of a minibus is too prohibitive. So if you paid by check it will be returned to you and if by cash, a check will be issued in the amount you paid and returned to you. At this point we will have to look at the possibilities of going caravan style. A signup sheet will be available for those who would want to do this at the August meeting. It will include a section for those willing to drive to check off that intention. All passengers of each vehicle would be expected to help with gas expenses in their vehicle.

EVAC Meeting Minutes

By Tom Mozdzen

July 12th, 2000 7:32pm Start of Meeting

Silvio called the meeting to order. There were again about 50 people in attendance, a popular number for the summer months.



Club President Silvio Jaconelli and Properties Manager Rick Scott prepare slides for the meeting... Photo by Martin Bonadio

Future announcements:

- Sat Oct 7th Lowell Tour.
- Sat Oct 21 Joint SAC-EVAC Picnic at Lost Dutchman.
- Sat Dec 9th Christmas Party @Recker and Brown in Mesa.

7:50-8:50 Main Speaker

Dr. Steve Odewahn, a research astronomer at Arizona State University spoke on the topic of automated galaxy classification. This is needed because the amount of data coming in from HST and the many large ground based telescopes is now enormous.



Dr. Odewahn talks about the structure of galaxies in the universe. Photo by Martin Bonadio

One interesting finding is that the younger galaxies show no bar structures. Why they form bars is one of the many open questions yet to be answered. Present galaxy formation theory is shifting from the giant condensing cloud model to the merging clumps model.

8:50 End of Meeting

Meeting Adjourned and refreshments and social activities commenced



Club members enjoy great snacks and conversation! Photo by Martin Bonadio

A Mid-Summer's Night Dream?

By Martin Bonadio



*Martin's Televue 101 is ready by the door for another night's adventure!!
Photo by Martin Bonadio*

(Wednesday July 4th, 2000. Gilbert, Arizona). Well I couldn't resist. The alarm went off at 2:30am and awoke me as planned. In a few short minutes I had my Televue 101 fully assembled and ready for action in the yard. To my surprise I was still not awake enough to view, and staggered around in the yard trying to figure out where Jupiter and Saturn were.... (and how I got here without dropping the telescope). Some common sense and a peek on my Palm Pilot's "Astro Info" program indicated it was too early; they don't rise until 2:51 and 2:43 respectively.... It was now 2:42am. To heck with that I'm not going back to bed <grin>.

When the slumber Gods finally gave in, a quick glance at Ursa Minor indicated that I had would be treated with moderately dark skies. Surprisingly could see 5 stars of the little dipper (2 of them required a little averted vision without my glasses). That's good - it means ~mag 4.2. My neighbor's porch light remained burning, and that street light across the road was causing its usual disruption.

My first target was obvious. Would Linear S4/1999 be visible in my 4" refractor in suburban skies, directly above that blasted streetlight? You betcha! In only 2 minutes I had it centered in my Nagler 7mm with a 2.5x powermate. That proved to be too much power for the sky and surface brightness of the comet, so I backed it down to about 75x and was treated to a brightening center core, a

hazy body, and a nice 10 arc-minute tail (estimate)!! Very fan shaped, small and dim, but it was a real treat!! I continued to watch for about 10 minutes, and then decided to move on. For reference on this night the comet was located about mid-way between Almach and Mirfak above M34 and below the double-cluster. In my 35mm Panoptic it was invisible. I had to use about 50x to really see it as something other than a faint galaxy-like smudge.

My next targets: M34, the double cluster, the Cassiopeia open clusters (NGC 225, 436, 457, 663, M52, and M103), and a large cluster centered next to Mirfak in Perseus. It's rather large at about 3 degrees - but framed nicely in my 4 deg FOV 35mm Panoptic.

After that It was on to Iota Cassiopeia (a neat triple star), Gamma Andromeda (Almach), and the nearby Struve 163 (5th mag orange primary with an 8th mag. blue companion). The planets were up above the haze about 4am, so I turned my attention there. The seeing was not that great this low, and nothing more than 100x was any good. I did note the Cassini division once, and the shadow of the planet on the rear rings of Saturn. I also could note some contrast on Saturn's surface briefly. Jupiter showed no more than a few bands, and I just missed Europe pass behind the planet... Oh well - next time.

Finally it was time for the close stellar pairing 61-Cygni. It has been a wanted target, so I jumped back there for a quick peak. Two nice orange pairs 5th and 6th magnitudes. I think the impending twilight actually helped bring out their color. What's fascinating about this pair is that they are only 11 light years away, and suspected of having a larger-than-Jupiter planet orbiting them. Their proximity allows their parallax to be measured over the course of a few years... Neat!!

The sun started brightening the eastern horizon, so I decided to start the long 5-minute packing process and go back to bed at 4:45am. It's funny because it takes me more time to put my eyepieces away than my scope.... It's worth it obviously, because all in all this was not a bad way to salvage a night at home with the scope... I still am in desperate need of a night of dark skies to really take a good look at some stuff in this wonderful little Televue 101!!

If it's clear...

By Fulton Wright, Jr.
Prescott Astronomy Club
For August 2000

Shamelessly stolen information from Sky & Telescope magazine, Astronomy magazine, and anywhere else I can find data. When gauging distances remember that the Moon is 1/2 a degree or 30 arcminutes in diameter.

On Monday, July 31, about 8 PM, you might be able to see Venus near the Moon. With binoculars look 3 degrees above the west-northwest for Venus (mag -4). Just

to the right is the very thin crescent moon (much dimmer and harder to see). From further north (e.g., Flagstaff) the Moon occults Venus but just as they are setting. From further west (e.g., Las Vegas) the two are higher in the sky during the occultation. Given twilight, low altitude, and the very young moon, it will be a difficult observation from anywhere.

On Thursday, August 3, about 8 PM, you can see the south-(planetary)east part of the Moon at its best. With a small (3 inch) telescope look 25 degrees above the west horizon for the crescent Moon. Libration tips the lower part of the moon toward us.

On Thursday, August 10, at 5:15 AM you can see Mars and Mercury near each other. With your unaided eye or binoculars look 5 degrees above the east-northeast horizon for Mercury (mag -1) and Mars (mag 2), 5 arcminutes apart.

On Saturday, August 12, at about 2 AM you can see two of Jupiter's moons close to each other. With a medium (6 inch) telescope look 15 degrees above the east horizon for mag -2 Jupiter. Io and Europa (both mag 5.5) form a 5 arcsecond "double star".

On Saturday, August 12, at about 4 AM you might see some Perseid meteors. With your unaided eye look toward the northeast. Your window of best viewing is bounded by moonset (3:26 AM) and twilight (4:12 AM).

The night of August 20-21 presents us with a lot of events with Jupiter's moons. Here is the schedule:

- 11:55 PM Jupiter rises with Io to the east, and with Europa, Ganymede, and Callisto in triangular formation to the west.
- 12:39 AM Io's shadow falls on Jupiter
- 12:40 AM Europa disappears in Jupiter's shadow
- 1:28 AM Ganymede disappears in Jupiter's shadow
- 1:59 AM Io moves in front of Jupiter
- 2:48 AM Io's shadow moves off of Jupiter
- 3:13 AM Europa appears from Jupiter's shadow
- 3:20 AM Europa disappears behind Jupiter
- 3:25 AM Ganymede appears from Jupiter's shadow
- 4:07 AM Io moves from in front of Jupiter
- 4:54 AM Nautical twilight starts

Grand Canyon Star Party - South Rim

By Randy Peterson

The tenth annual Grand Canyon star party was held this year from June 3-10, 2000. The majority of the attendees, as well as the organizer, Dean Kettleon, were from the Tucson area, but there were also a few from SAC (Saguaro Astronomy Club, based in west Phoenix) and EVAC. My youngest son and I use the GCSP as an excuse every year to spend a little time together for a few days away from the Valley heat, not to mention the magnificent surroundings.



*Attendees taking a peek at the sun through an SCT at the GCSP!!
Photo courtesy of George Barber of TAA*

We made reservations in advance to tent camp at the Mather campground on the South Rim for the last three nights of the event. The campground was turning-people-away-full every night, so if you go, make sure to reserve a spot in advance at 800-365-2267. The fees are reasonable at \$15 per night. Even though the surrounding national forest lands were closed because of extreme fire danger, we had no difficulty with camping in the park. The general store at the Canyon wouldn't sell charcoal or firewood, as there were no open fires allowed at all this year. We brought our white-gas Coleman stove, which was allowed. We ate breakfast and lunch at the campsite, but chose to eat our dinners at one of the two cafeterias there on the rim, both of which had reasonable prices. There are also several restaurants there, but when the least expensive entree on the menu is over \$15 per person at the sit-down restaurants, the cafeterias started looking pretty good. There are also fast food places in Tuscon, about a 10-minute drive away. Waking up at sunrise to a temperature of 37 degrees certainly was a change from the Valley! Had to actually wear a stocking cap at night to keep my ears warm!

The Grand Canyon advertises the nightly astronomy observing sessions at Yavapai Point with flyers located at various places around the park. When the crowds start thinning out about 6 p.m. for dinner, there were several dozen amateur astronomers arriving at Yavapai Point to set up telescopes; both in the parking lot and in a dirt area below the lot.

When it starts getting dark about 8-ish, several hundred people normally show up to look through the scopes. There was every size scope from a 90mm Questar to a 6" Astro-Physics refractor to Dennis Young's 28" f/3.8 Dob, which was the largest scope this year.

There were a plethora of more modest scopes, like my 10" Meade Starfinder, also. This year the moon played prominently in the night sky, so rather than fight it, I decided to use it. With a book on the moon I ordered just two weeks earlier, and a moon filter, I was able to point out where Apollos' 15, 17 and 11 had landed.

Only one person out of the hundreds that looked through my scope knew what the name is of the line between the light and dark hemispheres of the moon (the terminator), although one lady said that Arnold Swartzenegger came to mind, but she still didn't recall the correct terminology! People were pretty excited to see such sites in the scope, and no, you really can't see the flags!!! (Must have said that dozens of times). I have never closely looked at the moon's features before in my scope, so it was a learning experience for me too.

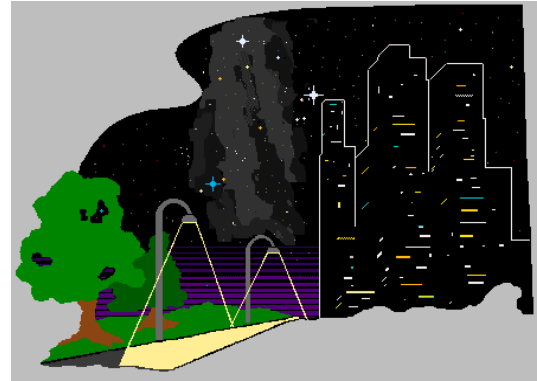
During the day, we set up a little 4.5" Newtonian Reflector that was equipped with a solar filter, so we pointed out sunspots. There were actually several people who had solar filters for their scopes, so we would have one solar scope at each of the main observation areas (Yavapai Point, Mather Point, and points west).

It surprises me that there are quite a few people who have been so conditioned about never looking at the sun, that they will have nothing to do with anything pointed sunward, even with a perfectly safe solar filter firmly attached. Needless to say, most people had never seen a sunspot before. There were a number of AA (amateur astronomers) who did some major hiking or biking, but we mostly viewed the landscape, and did some short rim-walks during the day, when we weren't looking at el Sol.

We had a great time-sharing the scopes and a little knowledge with the hundreds of people we met, many of who were from Germany, Holland, Japan, and other distant places, as well as some from the U.S. Both my son and I are looking forward to next year's Grand Canyon Star Party! Maybe you should too?

GPIDA

By Sam Herchak



There's a new "club" in town and we're looking for some motivated people who want to make a difference. I'll say no more about that later, but first, a quick report on the annual International Dark-Sky Association (IDA) meeting in Tucson.

I had not planned to attend because I didn't have the whole weekend off from work. But a mirror-making project that involves a friend in Tucson got me to jump on my motorcycle and head down for the day. Sure glad I did! It's one of those events (like RTMC) that will make you kick yourself for even thinking of not attending.

I arrived just as Chris Luginbuhl (US Naval Observatory-Flagstaff) finished his summary of the new IDA Model Code Handbook. It's a total compilation of the individual IDA Info sheets, addressing outdoor lighting from top-to-bottom, and includes a model lighting ordinance. This constantly updated document is only available online at this point (www.nofs.navy.mil/about_NOFS/staff/cbl/LC_Handbook_v1_0.html), but expect a single file you can download in the future.

Later Bob Gent (IDA's volunteer Public Relations Officer in Washington, D.C.) spoke of the tremendous amount of media coverage IDA and the light pollution topic received in 1999. From USA Today to Time magazine, the word is getting out. Even the lighting manufacturers are calling to learn more from IDA.

Then David Crawford (founder and Executive Director of IDA) started the business portion of the meeting with great news. Through some hard work by volunteers, IDA captured two grants totaling \$250,000 from the National Science Foundation and the Pauley Foundation. Although the money is spread over several years and comes with restrictions on how it can be used, it easily exceeds IDA's total revenue for 1999.

More good news: The highly energetic and persuasive Elizabeth Alvarez has become Associate Director of IDA. Membership is up to 4,100+ in 71 countries. Coalitions have formed with influential groups such as the Illuminating Engineering Society of North America (IESNA) and the National Park Service (NPS).

After the lunch break, we learned about some new lighting issues. Joan Roberts spoke on "chronotherapy" and how the human immune system follows a circadian rhythm. Look for cancer treatments to take place at night (I believe) in the future. Eunice Waggoner, from IESNA's Aging Eye Committee, talked about how seniors are easily blinded by bad lighting. An alliance with the large and influential AARP is thus a real possibility.

There's more good news. Many more of our counties and municipalities have passed or strengthened ordinances controlling outdoor lighting. More local sections of IDA are forming every month. So what are you waiting for? Get on the bandwagon!

Oh yes, the new club. GPIDA! The Greater Phoenix section of IDA was born just this May and we've already had two meetings. The progress to date is inspiring. There's a GPIDA listserver, a soon to be GPIDA website, and our first Light Pollution Symposium, hosted by the Arizona Science Center this August 25th at 7:00 P.M.. Our guest speaker is an expert on astronomy and lighting alike, Chris Luginbuhl from the Naval Observatory. Please come join us and learn what you can do to BRING BACK much of our night sky.

A quick thanks to the small group of people who made GPIDA a reality: Jim Deck, Stanley Gorodenski, Jack Jones, Peggy Kain, and Thad Robosson (SAC). Dale Noss and Bill Peters (EVAC). Christine Shupla (AZ Sci Ctr). And most importantly, the glue that brought us together, Jennifer Keller.

THE DARK SKY; LET'S NOT MAKE LIGHT OF IT!

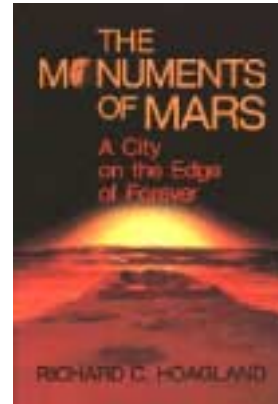
Sam Herchak (NPAAS)
(480) 924-5981
76627.3322@compuserve.com

International Dark-Sky Assn
www.darksky.org/~ida/

Library Focus

By Joe Orman

This month's review: **The Monuments of Mars: A City on the Edge of Forever** by Richard Hoagland.

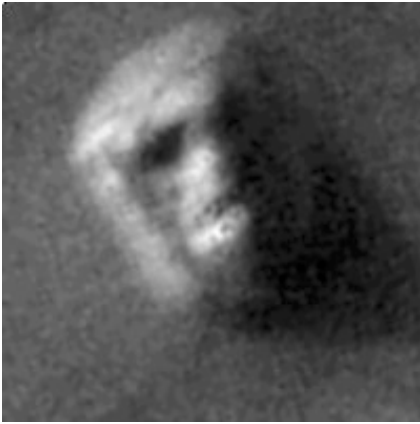


I must admit I was dismayed to find this book in our club library, and I'm somewhat ashamed to be reviewing it. After all, astronomers should promote science, not superstition! But we must be aware of the human tendency of self-deception, and must also be able to distinguish science from pseudoscience. In these respects, this book provides an important object lesson.

Viking Image of the "Face"

Where NASA saw "a trick of lighting and shadow," Richard Hoagland saw a remarkable symmetry. But since half of the "Face" in the original photo was in deep shadow, much of this symmetry had to be inferred. Scrutinizing the images of the terrain near the "Face" (which would seem to show merely scattered hills rising from the edge of a cratered plain), Hoagland began to see an enormous "City" including gigantic "pyramids" and a "fortress." Among these supposed structures, Hoagland found many with orientations parallel to, or at right angles to, the main axis of the "Face."

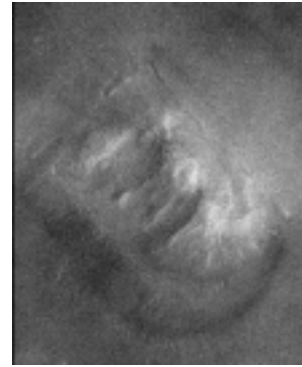
This is not surprising if one only considers those features that fit the desired pattern. Hoagland also claims the odds are against nature producing anything that resembles a human, despite the plethora of face-shaped mountains that have long been noted as curiosities on our own planet.



In 1976, the Viking Orbiter imaging team noticed on the surface of Mars a shadowed mountain, which resembled a human face.

Hoagland's most convincing evidence of artificiality was a tiny honeycomb pattern visible in the photos. When it was pointed out to him that this pattern was aligned with the camera's scan lines and was undoubtedly an artifact of the image processing, Hoagland proposed a new theory: the scan lines are interacting with an existing artificial pattern on the Martian surface to produce a *moiré* pattern. This is one of many times Hoagland disregards evidence that disagrees with his theories. Hoagland proposes that these structures were constructed by an alien race that had migrated to Mars from beyond our solar system. From this point, the book spins into wild speculation that connects these Martian immigrants with Earth via ancient Egypt. These theories are clearly ridiculous, and it is hard to believe anyone would take them seriously. However, on the surface, this book appears to be very scientific. Indeed, the material presented on the geological history of Mars is quite good. By the test of Occam's Razor (All other things being equal, the simplest explanation is probably the correct one), any reasonable person would quickly conclude that these features on the Martian surface are natural. There are two more simple tests of any hypothesis: Is it subject to **peer review**, and is it **disprovable**?

Peer review, in which scientific work is judged by independent, knowledgeable people, is critically necessary to keep well-meaning individuals from deluding themselves. As Percival Lowell's Martian "canals" taught us, if we want to believe something bad enough, our minds will manufacture the evidence. But Hoagland seeks no valid peer review to confirm his work. His "Independent Mars Investigation" was made up of anyone he could find who was sympathetic to his cause! Is this hypothesis *disprovable*? If you cannot devise an experiment -- even a "thought experiment" -- whose results would disprove a theory, then that theory has no scientific meaning. In the case of the Martian "artifacts," we could prove them false if we took higher-resolution photos of them, and their artificial appearance disappeared. This is exactly what has happened since this book was written. Mars Global Surveyor images of the "Face" (taken at a high sun angle) revealed a somewhat-symmetrical but otherwise unremarkable mesa.



Mars Global Surveyor Image of the "Face"

Recently, more than 25,000 images from the Mars Global Surveyor were made available on the Internet at www.msss.com/moc_gallery. At least from orbit, Mars appears a vast dust blown desert with no signs of intelligent life. One would hope that this would put the wild theories to rest, but it has not. On Hoagland's website (www.enterprisemission.com), he presents many more images that have been scrutinized and manipulated until patterns appear. All of this would be laughable if so many did not take it seriously. But many people do, and this points out the sad lack of skepticism in our society. In the words of Hoagland himself, "Either these features on Mars are natural and this investigation is a complete waste of time, or they are artificial and this is one of the most important discoveries of our entire existence on Earth." Which is more likely? For most of us, the answer is so obvious; the question might seem not even worth asking. But to keep others and us from being deluded in the future, it is important to think about *why* the answer is so obvious. Please read an expanded version of this article at: <http://pages.prodigy.net/pam.orman/joearticles/JoeArticle8.html>. This and many other books may be checked out free of charge to EVAC members. Browse the books at the next meeting, or contact club properties manager Rick Scott at rmsscott@home.com or (480) 821-5721.

FOR SALE

Celestron G-5 Schmidt Cassegrain w/ equatorial motor drive. Eyepieces: 5mm Celestron Ultima, 10mm plossl, 25mm Celestron SMA. Also includes 6 color filters, 1 moon filter, 1 Telrad base. \$650. Contact Robert Smith (480) 641-8197

Meade LX-10, Loaded with Accys. Purchased new in December 99' and used five times. Perfect conditions with the following upgrades: Meade Deluxe adjustable Field Tripod, Magellan I, Dec. motor, 2" Diag., Electric Focuser, Telrad, Balance System, Eye Piece Tray, Dust Cover, Foam Carrying Case with wheels. Everything as new with Original Boxes and Manuals. \$1450.00. Contact Bob Lillquist, Office (480) 736-8799, Eves and Wkends (480) 759-3994.



East Valley Astronomy Club

Membership Form

Please complete the information requested. Return at the next club meeting or to the address below, with a check made payable to EVAC for the appropriate amount due. **IMPORTANT:** Please note that ALL memberships expire on December 31 of each year.

1. Check one of the following: New Member Renewal

2. Select appropriate dues options:

Send To:

New Member select month joining:

- \$20.00 January - March
- \$15.00 April - June
- \$10.00 July - September
- \$ 5.00 October - December

Dee Ann Zacher
EVAC Treasurer
P.O. Box 2202
Mesa, Arizona 85214-2202

Member Renewals (current Members ONLY!)

- \$20.00 Annual Renewal (January - December)

Magazines: Provide renewals notices with payment.

- \$29.00 Astronomy Magazine
- \$30.00 Sky & Telescope

Name Badges

- \$7.00 Each

_____ **Total Enclosed**

3. Complete requested information below. Please Print.

Name: _____

Address: _____

Phone #: _____ E-mail: _____

URL: _____

4. Newsletter delivery option: U.S. Mail E-mail

EVAC on the Internet

EVAC Homepage: www.eastvalleyastronomy.org

E-mail Mailing Lists

EVAC-mls is a mailing list for club announcements and quick notification of astronomical events.

To join, send E-mail with the "Subject: subscribe" to EVAC-mls-request@psiaz.com

EVAC-Board is for EVAC business. All club members are welcome to participate.

To join, send E-mail with the "Subject: subscribe" to EVAC-Board-request@psiaz.com

AZ-Observing is a fairly general mailing list about observing in Arizona. Included are star party information, who is going, as well as the latest observations and astronomical events.

To join, send E-mail with the "Subject: subscribe" to AZ-Observing-request@psiaz.com

Although EVAC is a private club not open to the public, we do encourage potential new members to initially join us at our club meetings and/or star parties to help them determine the suitability of the club to meet their needs.

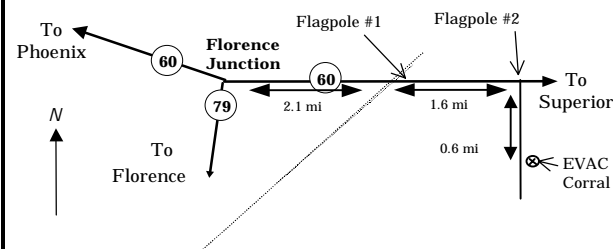
EVAC Star Parties

Local Star Party: Florence Junction Site

General Information: The Florence Junction site is the official site for the East Valley Astronomy Club's Local Star Party, typically held on the Saturday closest to Last Quarter Moon. Florence Junction offers reasonably dark skies within a short drive of most east Valley locations. (Report gunfire or illegal activity: 800/352-3796; Land use permit number: 26-104528.)

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

How To Get There: Take US 60 east to Florence Junction. Go past Florence Junction. 2.1 mi past FJ are railroad tracks, and on the right will be a flagpole. Do not turn there. Continue on for another 1.6 miles until you find the second flagpole on the right. This is your turn. Turn right, and continue on the dirt road for 0.6 miles. The corral is on the left right before a gas-line sign.

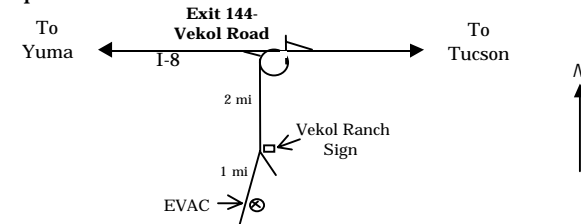


Deep Sky Star Party: Vekol Road Site

General Information: The Vekol Road site is the official site for the East Valley Astronomy Club's Deep Sky Star Party, typically held on the Saturday closest to New Moon. Vekol Road offers dark skies despite prominent sky glow from Phoenix to the north. The site is within 1½ hours drive time from most east Valley locations.

Location: N 32° 47' 55" W 112° 15' 15"

How to Get There: Take I-10 south and exit onto Maricopa Road. Continue through the town of Maricopa to SR 84, about 25 miles from I-10. Turn right on SR 84, after about 5 miles the road merges with I-8. Continue west and exit I-8 at Vekol Road—Exit 144. Turn left and cross the highway overpass. Before looping back onto I-8 take the dirt road to the left. Go south for 2 miles. At the Vekol Ranch sign bear right and continue south for another mile until reaching a large, open area on the left.



EVAC Officers

PRESIDENT
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(480) 735-8042

TREASURER
Dee Ann Zacher
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(480) 497-5703

PROPERTIES
Rick Scott
(480) 821-5721

East Valley Astronomy Club—2000
Scottsdale, Arizona
EVAC Homepage—<http://www.eastvalleyastronomy.org>

Membership & Subscriptions: \$20 per year, renewed in December. Reduced rates to *Sky & Telescope* and *Astronomy* available. Contact Dee Ann Zacher. Email—dazacher@uswest.net

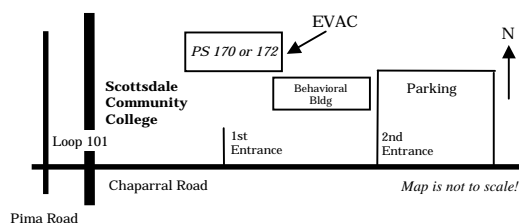
Club Meetings: Second Wednesday of every month at the Scottsdale Community College, 7:30 pm. Normally Room PS 170 or 172 in the Physical Sciences Building. See map below.

Newsletter and Address Changes: Contact Martin Bonadio 921 North Kingston Street, Gilbert, AZ 85233, 480/926-4900. mabastro@aol.com. Contributions may be edited. The Newsletter is mailed out the week before the monthly Club meeting. An electronic version available in Adobe PDF format in lieu of a printed copy. Please contact Martin with delivery your preferences.

EVAC Library: The library contains a good assortment of books, downloaded imagery, and helpful guides. Contact Rick Scott for complete details, 480-821-5721

Book Discounts: Great savings through Kalmbach and Sky Publishing. Contact Dee Ann Zacher, club treasurer.

EVAC Party Line: Let other members know in advance if you plan to attend a scheduled observing session. Contact Stan Ferris, 480/831-7307.



Martin Bonadio, Editor
921 North Kingston St. Gilbert, AZ 85233

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- President's Comments
- From the Vice President
- EVAC Meeting Minutes
- A Mid-Summer's Night Dream?
- If It's Clear
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- For Sale

Reminder: Next EVAC Meeting
Wednesday, August 9th 2000