



East Valley Astronomy Club

September

Newsletter

1997

EVAC MEETING HIGHLIGHTS

by Aaron McNeely, Secretary

President Sheri Cahn started the meeting at 7:30 pm. Including the main speaker, there were 62 persons present, 54 of these members and 7 newcomers. Sheri discussed the following events:

Local Star Party: August 30 at Vekol Road.
EVAC Meeting: September 10 at SCC.

Old Business

Florence Junction Site Permission - We are still waiting to hear whether we have acquired permission from the State to use this land. Silvio has paid the \$50 land-use fee. In the interim we have decided to use the Vekol Road site for the upcoming Local Star Party (see above).

Adopt-A-Highway - Scheduled for Saturday, October 18, EVAC maintains a stretch of highway on Route 60 close to the Florence Junction site for which we receive the publicity of a sign. Volunteers will be needed to help pick up trash.

All Arizona Star Party - The All-Arizona Star Party will be held on the nights of October 3-4 with a porta-john present for the second evening (Saturday). Maps and directions were available at the August meeting and will also be available at next month's EVAC meeting (September 10).

Name Tags - EVAC Treasurer Silvio Jaconelli will order individual name tags for \$7. The new name tags possess a metallic sheen with the smaller EVAC logo.

EVAC Party Line - Maintained by Robert Kerwin, the party line is a resource for Club members who wish to rendezvous with other Club members for astronomical observing. Due to the uncertainty concerning our use of the Florence Junction site, and the seasonal threat from monsoons, Robert requested that anyone going out give him a call.

New Business

EVAC Properties Manager Election - EVAC needed a new Properties Manager due to Ken Spruell's transfer in employment to Seattle. Frank Honer and Don Wrigley were nominated for the position and Frank won the election.

1998 Messier Marathon - Next year's Messier Marathon, run by the Saguaro Astronomy Club and held at the Arizona City site, is scheduled for Saturday, March 28. Paul Dickson, forwarding this message from A.J. Crayon, said that A.J. may attempt to have this gathering rated by the Guinness Book of World Records as the largest Messier Marathon in the world. Further subdivisions for world records could be established for most observers to make the attempt and most observers to see all 110 Messier objects.

Member Show & Tell

Hale-Bopp Observations from "Down Under" - Chris Schur provided details from his recent trip to Australia. He was present to observe Comet Hale-Bopp's recovery after its conjunction with the sun. The comet was visible in Australia low in the southeast sky and displayed a fantastic 5° long "anti tail" of particles seemingly pointing away from the sun. This illusion is due to the geometry of our viewing position as we look down into the orbital debris trail emitted by the comet.

UPCOMING EVENTS

- EVAC Club Meeting, Sept. 10, 7:30 pm
SCC, Physical Science Bldg., Room 172
- Local Star Party, Sept. 27, Sunset -6:17 pm
Florence Junction site
- All-AZ Star Party, Oct. 3-4, Sunset -6:09 pm
Arizona City site
- EVAC Club Meeting, October 8, 7:30 pm
SCC, Physical Science Bldg., Room 172
- Local Star Party, October 25, Sunset -5:42 pm
Florence Junction site

Pierre Schwaar's Lightning Video - All present were treated to a variety of phenomena captured by Pierre Schwaar's video camera: Perseid and Geminid meteors, Comet Hale-Bopp suspended over Four Peaks, and monsoon storms. The latter footage of lightning was taken from Pierre's back yard and displayed what is termed a "stepped leader," branches of energy that catalyze the formation of a single surge of lightning. On video the stepped leader appeared immediately following the main stroke of lightning as an isolated bolt of energy that appeared separate from the main bolt. The stepped leader was superimposed in front of a shed about 10 feet from where Pierre was filming and could potentially have been the one to initiate the main stroke of lightning. The documentation of the stepped leader phenomenon on film or video has been very rare.

Featured Presentation

Peter Wlasuk, a professor of astronomy with the Florida International University, received his Ph.D. in astronomy from Yale University where he worked on the Yale Bright Star Catalogue. Dr. Wlasuk has been in Arizona while working on Kitt Peak at a facility operated by the SARA Consortium (the Southern Association for Research in Astronomy), an alliance of southern Universities interested in astronomical research, and he spoke about his research concerning active galactic nuclei (AGN).

Dr. Wlasuk began with a general discussion of the phenomena labeled Active Galactic Nuclei, celestial objects such as quasars, blazars, BL Lacertae Objects, and Seyfert Galaxies. One early known example of such an object was 3C 295, a powerful source of radio emission. 3C 295 possessed the greatest known redshift at the time, which indicated an age dating back to 1/5 the age of the universe, and was stellar in appearance with a fuzzy outer part. Astronomers were initially puzzled by the unknown emission lines until they realized that the lines were of the known, catalogued variety but redshifted substantially. The object's absolute luminosity was much greater than any known star, yet the observation that the light output of the object varied on the order of weeks and days indicated a small object of just a few light months in diameter. Astronomers were also baffled at the realization that this object emitted about 100 times more energy than an average galaxy. Another curious feature of the AGN class of objects is their tendency to emit beams or jets of radiation and that a part of this output consists of synchrotron radiation, a type of energy created by the rapid spiraling of electrons at near light speed in the presence of strong magnetic fields.

At the time that Dr. Wlasuk became interested in studying the AGN class of objects, the study of black holes lay on the fringes of orthodox physics. Dr. Wlasuk

and others began to realize that black holes could be a potential source of the driving energy behind the peculiar AGN objects. An observation in support of this conjecture is that the amount of energy "processed" by AGNs equals 42%, equal to the amount of energy released from the hypothetical infall of matter into a black hole (compare this value with 0.7% for the sun's conversion of hydrogen into helium and 5% for the energy liberated by the infalling matter of a neutron star).

Astronomers have created a "unified model" for the AGNs. Consider a black hole surrounded by a disk of accreting matter with the jets positioned perpendicular to the accretion disk. A "head on" view perpendicular to the accretion disk results in what astronomers would call a BL Lacertae object or blazar, an oblique view creates the appearance of a quasar, and an edge on view is known as a Seyfert galaxy. This concept is similar to an amateur astronomer's observation of galaxies in that some galaxies, such as M101 in Ursa Major, are positioned face on while others, such as the Andromeda Galaxy, are positioned at an oblique angle, and others, such as NGC 891 in Andromeda, are positioned edge on.

In conclusion, Dr. Wlasuk provided an intriguing glimpse into the work of an astrophysicist in pursuit of the understanding of some of the universe's most bizarre objects.

September's Guest Speaker

The speaker for the September meeting will be Bob Gent. Bob is the Public Relations Officer for the International Dark-Sky Association and the Western Region Representative of the Astronomical League. He will talk about the latest work of the IDA and the activities of the AL.

THE CHALLENGE OF GAMMA CYGNI

by Robert Kerwin

As the rich star clouds of Sagittarius and Scorpius sink toward the west on late summer and early autumn evenings, many deep-sky observers turn their attention to Cygnus, now overhead. The abundance of clusters, nebulosities and rich star fields is enough to keep almost anyone occupied for hours. One area, the region of Gamma Cygni, deserves special attention. This region contains several interesting open clusters as well as the Gamma Cygni nebula. Although the Gamma Cygni nebula has been photographed countless times by astrophotographers, many observers don't realize that the majority of this nebulosity is actually visible (albeit faintly) in amateur telescopes.

I made my initial observations of this region in September of 1995 using both eight- and five-inch

reflectors from a dark, low desert site west of Phoenix. In the summer of 1997, I decided to re-observe this area, bringing to bear a twelve-inch reflector from a dark, high altitude site. The region is plotted on Uranometria charts 84 and 85 but unfortunately, it lies near the edge of each chart. To get the complete picture, copy both pages and mosaic them.

The prerequisites for our exploration of this complex region are simple: dark, transparent skies, a UHC filter and plenty of patience. Surprisingly, a large telescope is not necessary. A larger scope will show more nebulosity and detail, of course, but certain sections of the nebula are even visible in a humble 60mm refractor at low power.

Let's start our exploration by examining the open clusters first. Several of the open clusters are in strategic locations and will serve as guideposts to the fainter nebulosity. They also are a good warm up for the more challenging observing ahead. A good place to start is M29, a bright cluster less than two degrees south of Gamma. M29 appears as an unmistakable box-shaped cluster of stars about eight arc-minutes across. The cluster contains eight prominent stars; fainter stars bring to 25 the number visible in a good eight-inch or larger scope. About one degree west and slightly south of M29 lies Dolidze 42. This loosely packed cluster of about 20 stars is about 12 arc-minutes across. Like many of the clusters we will be observing, Dolidze 42 is not easy to recognize as a cluster against the rich background. Slightly easier is Berkeley 86 (30 arc-minutes north), which contains a couple dozen stars in a seven arc-minute area. Several of the brighter stars seem to be arranged in pairs aligned roughly north-south. Overall, the cluster is approximately triangular.

Now using Gamma as the starting point, move about 20 arc-minutes south to center Dolidze 43. About 12 arc-minutes across, this bright cluster is fairly well detached and contains some 40 stars. Though not exactly eye-popping, this cluster is a nice sight in eight- to twelve-inch scopes. One degree east of Dolidze 43 is our next cluster, Dolidze 10. This cluster contains about 50 stars in a 25 arc-minute area. This cluster is bright and well detached and should present no problems for users of six-inch or larger scopes.

Now move just 40 arc-minutes north of Gamma to sweep up NGC 6910. This bright, splashy open cluster is a visual treat after some of the more nondescript clusters. In my twelve-inch reflector, I counted about 65 stars and estimated an overall diameter of 16 arc-minutes. The core of the cluster is about half that size and contains about 50 stars. Just over a degree west of NGC 6910 is Collinder 419. This cluster of a dozen or so bright stars lies just south of a sixth magnitude star and is only about five arc-minutes across. The bright star is a close, uneven double, components 5.9

and 8.1 separated by 2.7 seconds of arc. Another magnitude 8.6 star lies 35 arc-seconds away. Our final open cluster is Collinder 421, which lies about one and a half degrees north of Gamma Cygni. This cluster is fairly well detached and contains about 40 stars within an eight arc-minute circle. Cr 421 is an interesting, though not spectacular cluster.

Having finished our survey of clusters, let's move on to our main goal: the Gamma Cygni nebula. The majority of the nebulosity is cataloged as IC 1318, with the exception of the broad, diffuse area southwest of Gamma, which is known as Sharpless 2-108. Keep in mind that at least some parts of these nebulae are visible even in small scopes with a UHC filter. Likewise, in eight-inch or larger scopes, some parts of the nebulosity are visible without a UHC filter, though the moderate contrast boost given by the UHC makes a world of difference. I also tried an OIII filter, but found that it degraded the view considerably.

Let's begin by re-centering NGC 6910 in a low power field. This is probably the least impressive section of the nebula. In my twelve-inch reflector, I noticed only an indistinct glow around the cluster, filling the 50 arc minute field of view at 80x. Now re-center the cluster Dolidze 10 in a low-power field. Look just north of the cluster for a fairly bright, smooth glow about ten arc-minutes across. Using slow, careful sweeps, search the surrounding area for faint nebulosity. With the twelve-inch reflector, I was able to trace the faint, misty glow about 40 arc-minutes further northeast, where it faded to the background. Working southwest from the bright knot, I was able to follow the faint glow back to the general area of Gamma. To the south of this streamer, you will probably notice a large dark area paralleling the nebulosity. This is the dark nebula LDN 889.

Now, cross the dark peninsula of LDN 889 to the south to pick up another fainter and narrower glow. I find this band quite bright toward the east, then fading as it meanders westward, eventually merging with the northern streamer near Dolidze 43. Sweeping southwest from here will put you in the heart of Sharpless 2-108—but you may not realize it at first! Scan slowly across the area, paying special attention to the western parts of the nebula. In my twelve-inch scope, I see Sh2-108 as a huge, faint, uneven glow that is difficult to observe because of its size.

We now turn our attention to a detached segment of IC 1318 about two degrees west of Gamma. In my twelve-inch scope, this nebula appears as a very faint, formless glow nearly a degree across. The dark nebula LDN 880 is an obvious dark spot bracketed by a pair of stars to the east and another to the west. The dark nebula is approximately 12 arc-minutes across. Our final target is the large V-shaped segment to the northwest of Gamma. A good way to locate this nebulosity is to re-center Collinder 419, which lies on

the east end of the southernmost branch. In a larger scope, this particular section is difficult to trace because of its size. As an experiment, I inserted the UHC into my 60mm finder scope at 9x, not really expecting to see much. Surprisingly, however, the overall shape of the nebula was faintly visible. The southern branch of the V is quite difficult as it flows westward from the cluster toward a clump of stars, which includes the cluster IC 1311. The glow disappears completely to the northeast of the point of the V, but reappears suddenly as a bright knot on the northeast end. In fact, this knot is probably the brightest part of the entire nebula. Obvious even in the 60mm scope, the twelve-inch scope shows it as a segment of an arc about 40 arc-minutes long.

There you have it—enough to keep you busy for a whole night, all in a compact package just four degrees square. Many of the objects are quite challenging, but certainly within the capabilities of the patient observer with modest equipment and access to dark skies. If you are ready for an observing challenge, try the Gamma Cygni region.

NEW EVAC E-MAIL MAILING LIST

by Paul Dickson

In the past, I have been collecting E-mail addresses from club members. I did this for two reasons, one for the club's Contact List, and the other for quick notification of astronomically related events.

I'm now replacing the manual mailing list with an automated one.

This mailing list will allow automatic subscriptions by anyone with an E-mail account.

I have actually created two E-mail mailing lists. One is a receive only mailing list that will replace me as the sender of astronomical news as well as club news. This mailing list is limited to broadcasts by member EVAC Board of Directors only, so only those approved may send messages to all subscribed members.

If you have something that you feel should be sent to all EVAC E-mail subscribers, send it directly to the mailing list. If you are not on the board, the message will be redirected to me for approval.

To subscribe to this mailing list, send E-mail to: evac-mls-request@psiaz.com with the SUBJECT set to: subscribe. The body of the message will be ignored.

After you subscribe, you will receive an occasional E-mail message from the mailing list. In the past there have been one to three messages each month, but there have been a lot of months with nothing sent.

If you were on my mailing list, you will still need to subscribe to this new one. I am not copying over E-mail addresses to this new mailing list from the old list.

If, in the future, you wish to be removed from the mailing list, send E-mail again to the above address with SUBJECT set to "unsubscribe" and you will be removed from the list. When you subscribe to the mailing list, you will receive a message about how to unsubscribe. You should save this message for future reference (eg. if you change your mailing address in the future).

If you have an announcement that the club in general would be interested in hearing, send it to: evac-mls@psiaz.com.

Board of Directors' E-Mail List

There is now a mailing list for the members of EVAC's Board of Directors (BoD). Like the BoD meetings, this mailing list is open to all club members. The instructions for joining is similar to the ones above.

To subscribe to this mailing list, send E-mail to: evac-board-request@psiaz.com with the SUBJECT set to: subscribe.

After you subscribe, you will receive any E-mail from discussions on this list. The discussions should be limited to club business. To add your comments to a discussion on this mailing list, send E-mail to evac-board@psiaz.com.

Rules for these Mailing Lists

Please do not publish these E-mail addresses to any newsgroup or on and web page. There are many programs that search the newsgroups and web pages for E-mail addresses to send advertising.

Please be relevant. Topics should be related to amateur astronomy (for evac-mls@psiaz.com) or EVAC business (for evac-board@psiaz.com).

You will still need to notify Sam Herchak of your E-mail address if you want it published in the Contact List for Club Members. The mailing list software only keeps track of the E-mail address. Therefore, if you don't have an E-mail address that reflects your name, there is no way to quickly link your address to your name.

Thanks to Bob Erdmann for hosting the POP3 mailboxes on psiaz.com.

All-Arizona Star Party 1997

October 3rd and 4th 1997

The monsoon is over, the skies are clear again, it's getting cooler and...

It's time for the 1997 All-Arizona Star Party, sponsored by East Valley Astronomy Club! Once again, this year's star party will be held at a site south of Arizona City on October 3-4. This site offers the right combination of dark skies, good seeing and not-too-cold nights that will encourage you to stay up well past your bedtime!

Fall clearing:

Have some old equipment gathering dust in your garage? Or perhaps you're in the market for some good bargains? Don't forget about the swap meet at 4:30pm on Saturday afternoon! You'll have plenty of opportunities to turn that equipment into cash, or that cash into equipment.

How to get there

The site is somewhat remote, but still relatively easy to find. Take I-10 south from Phoenix to Exit 200, Sunland Gin Road. Turn right (south) after exiting the freeway. After about 15 miles, the pavement ends and about two miles further, the road turns sharply to the west. After another four miles, the road will turn south just after the "Silverbell Estates" signs. Three miles past the signs, the road will veer off to the west. Continue on the main road for another five miles, where it passes through a gate. Take an immediate left after the gate and continue for 0.7 mile. Take the next right onto a road that leads into an abandoned field. We will post signs along the road, so follow the EVAC signs. See the map on the back of this page.

You probably already know this, but...

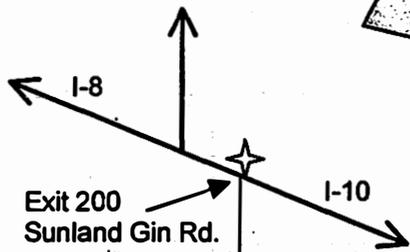
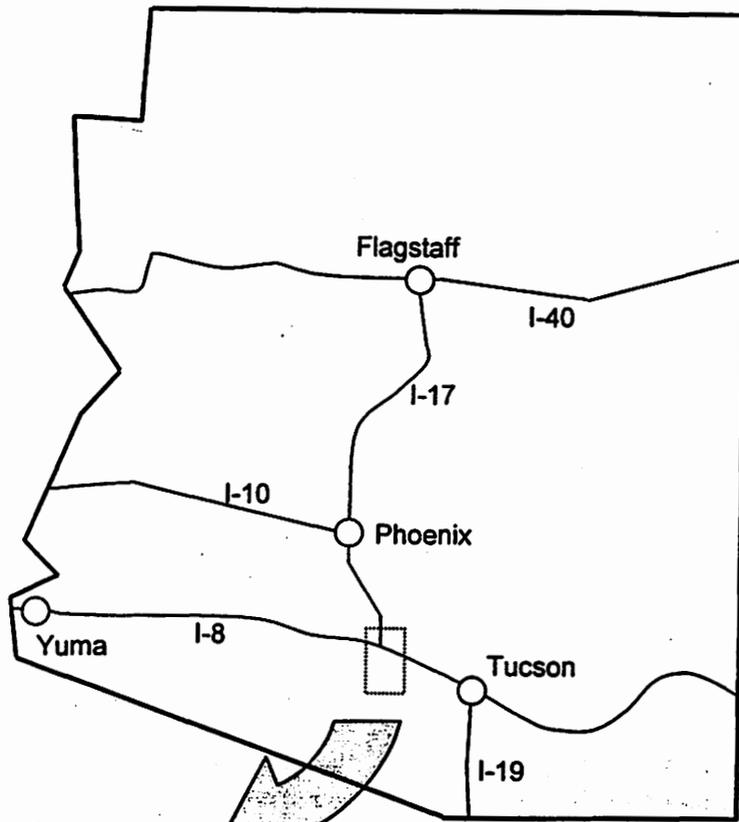
...We have to say it anyway. Common sense stuff to make this year's star party enjoyable for everyone:

1. Consumption of alcohol is not permitted at the site.
2. Please pack out all trash. Remember that the site is on private land and we are the invited guests of the landowner.
3. There is no water at the site, so bring plenty.
4. The only facilities provided will be a porta-potty on Saturday night.
5. Please plan on arriving before dark. Although we will post signs along the road, this site is rather difficult to find after dark. In addition, late arrivals can be rather disruptive to those that are already observing or taking pictures. If you must arrive late, park near the entrance on the north end of the field.
6. If you must leave early, please park toward the north end of the field. Before leaving, warn those around you of your plans. Likewise, if you are planning to stay the entire night, park to the south.

Need more info?

If you have questions about this year's All-Arizona Star Party, please contact:

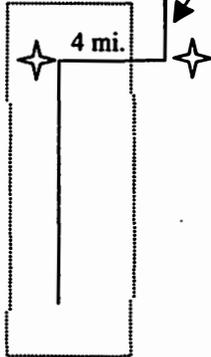
Sheri Cahn
3721 W. Hayward Ave.
Phoenix, AZ 85051
Phone: (602)841-7034



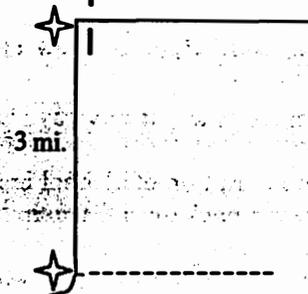
Arizona City

17 mi.

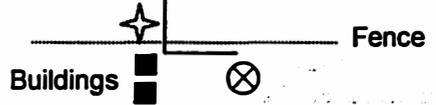
Pavement Ends



"Silverbell Estates" Signs



5 mi.

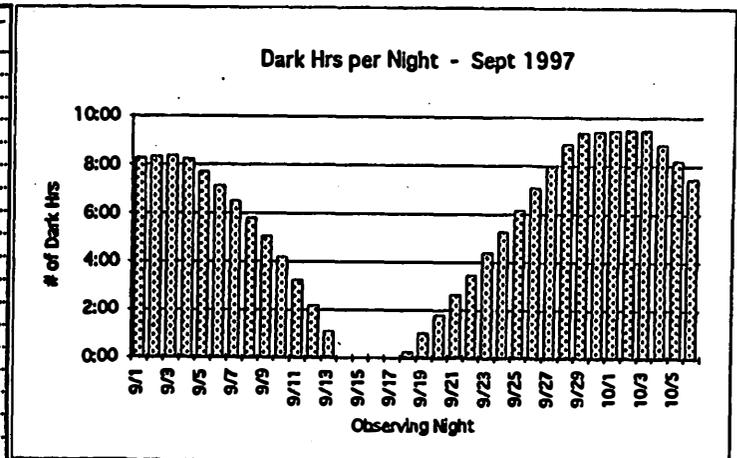


Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<p>31 °3:53 AM Double shadow transit on Jupiter °Mercury at Inferior Conjunction with Sun</p>	<p>1 ● °12:43, 1:17, 3:01, 3:35 AM Gal Moons# °9:19, 9:57 PM -> 12:49, 1:25 AM Gal Moons °ALL MONTH NOTES#</p>	<p>2 °7:46, 9:28, 10:04 PM Gal Moons °9:55 PM GRS#</p>	<p>3</p>	<p>4 °7:45 PM Venus/Moon Conjunction °11:33 PM GRS °7:00 PM PAS Mtg#</p>	<p>5 °7:30 PM Venus/Spica Conjunction °7:25 PM GRS</p>	<p>6</p>
<p>7 °7:30 PM Venus/76 Virginis Conjunction °9:03 PM GRS</p>	<p>8</p>	<p>9 ● °8:56, 9:42, 11:14, 11:59 PM Gal Moons °10:41 PM GRS</p>	<p>10 EVAC Meeting °9:05, 9:13, 10:36 PM Gal Moons</p>	<p>11</p>	<p>12 °8:11 PM GRS</p>	<p>13 °Jupiter/Moon Conjunction</p>
<p>Sunset 6:41 PM Sunrise 6:05 AM</p>						
<p>14 °9:49 PM GRS</p>	<p>15</p>	<p>16 ○ °Mercury at Greatest W Elongation °10:43, 11:47 PM->1:01, 1:55 AM Gal Moons °Harvest Moon</p>	<p>17 °9 Gal Moon events starting at 7:56 PM#</p>	<p>18 °<3:16 - 4:15 AM Saturn Occultation#</p>	<p>19 °<1:04, 4:58 AM Occ# °8:57 PM GRS °7:30 PM SAC Mtg#</p>	<p>20</p>
<p>21 °10:35 GRS</p>	<p>22 °Autumnal Equinox</p>	<p>23 ●</p>	<p>24 °8:05 PM GRS °9:44, 10:55 PM->12:56, 1:03, 1:30, 1:45 AM Gal Moons</p>	<p>25 °8:02, 9:17, 10:19 PM Gal Moons</p>	<p>26 °9:44 PM GRS</p>	<p>27 Local S Party</p>
<p>Sunset 6:22 PM Sunrise 6:14 AM</p>						
<p>28</p>	<p>29</p>	<p>30</p>	<p>1 ● </p>	<p>2 °8:49, 9:57, 11:07 PM-> 12:15 AM Gal Moons °7:00 PM PAS Mtg#</p>	<p>3 °8:01, 9:26 PM-> 1:17 AM Gal Moons</p>	<p>4 All-AZ S Party</p>

Date	Start	Title	Description
9/1/97	12:00 AM	ALL MONTH NOTES#	<p>CALENDAR NOTES: This arrow (<) preceding an event indicates it occurs during the darkness that begins the night before. The Feb 1997 Newsletter (or your new member packet) contain details on "Occ" events. "Gal Moons" refers to at least 3 events of Jupiter's satellites; an arrow (->) indicates the events continue into the next morning. "GRS" are Jupiter's Great Red Spot meridian crossing times. Check Sky & Telescope (S&T) and Astronomy (ASTRO) magazines for more info. Planetary "Marathon" possible at mid-month; see all nine planets in one night's observing. Lunar librations and sunlit portions of Moon are again out of sync this month.</p> <p>PLANETS: MERCURY rises low in the E at dawn mid-month. VENUS the unmistakable "Evening Star" in the W. MARS low in the SW at dusk. JUPITER high in the S-SE after dark. LOTS of activity to watch with the Galilean Moons. SATURN rises early evening now in the SE and remains up all night. Don't miss the occultation on the 18th. URANUS and NEPTUNE set mid-morning just before Jupiter. PLUTO sets mid-evening. See detailed findercharts in May ASTRO pg74 or May S&T pg 84.</p>
			<p>OBJECTS OF INTEREST: Planetary Marathon; Asteroids Vesta/Klotho Conjunction, Sep ASTRO, pg 66.</p>
9/2/97	9:55 PM	9:55 PM GRS#	Jupiter's Great Red Spot (now looking like the "Pale Pink Spot"), crosses the Planet's central meridian. Spot faces Earth 2.5 hours either side of time given. See Sep S&T, pg 91.
9/4/97	7:00 PM	7:00 PM PAS Mtg#	Phoenix Astronomical Society Mtg, Brophy Prep, 4701 N. Central Ave. Turn off Highland into Main entrance, follow signs upstairs to Physics lab.
9/18/97	3:16 AM	<3:16 - 4:15 AM Saturn Occultation#	Total occultation of Saturn by the Moon. See Sep ASTRO, pg69 and Sep S&T, pg 94 for details
9/19/97	7:30 PM	7:30 PM SAC Mtg#	Saguaro Astronomy Club meeting, Grand Canyon University, Fleming Bldg, Rm 105. Camelback and 33rd Ave.

Dark of the Moon Table -- Sept 1997

OBSERVING NIGHT	START OF DARK	END OF DARK	TOTAL DARK	OBSERVING NIGHT	START OF DARK	END OF DARK	TOTAL DARK
MON/TUES	9/1 8:20 PM EOT	9/2 4:36 AM SOT	8:16	FRI/SAT	9/19 7:52 PM EOT	9/19 8:53 PM MR	1:01
TUES/WED	9/2 8:18 PM EOT	9/3 4:37 AM SOT	8:19	SAT/SUN	9/20 7:51 PM EOT	9/20 9:39 PM MR	1:48
WED/THURS	9/3 8:17 PM EOT	9/4 4:38 AM SOT	8:21	SUN/MON	9/21 7:49 PM EOT	9/21 10:26 PM MR	2:37
THURS/FRI	9/4 8:25 PM MS	9/5 4:39 AM SOT	8:14	MON/TUES	9/22 7:48 PM EOT	9/22 11:16 PM MR	3:28
FRI/SAT	9/5 8:58 PM MS	9/6 4:40 AM SOT	7:42	TUES/WED	9/23 7:46 PM EOT	9/24 12:08 AM MR	4:22
SAT/SUN	9/6 9:33 PM MS	9/7 4:40 AM SOT	7:07	WED/THURS	9/24 7:45 PM EOT	9/25 1:00 AM MR	5:15
SUN/MON	9/7 10:11 PM MS	9/8 4:41 AM SOT	6:30	THURS/FRI	9/25 7:43 PM EOT	9/26 1:53 AM MR	6:10
MON/TUES	9/8 10:54 PM MS	9/9 4:42 AM SOT	5:48	FRI/SAT	9/26 7:42 PM EOT	9/27 2:47 AM MR	7:05
TUES/WED	9/9 11:41 PM MS	9/10 4:43 AM SOT	5:02	SAT/SUN	9/27 7:40 PM EOT	9/28 3:40 AM MR	8:00
WED/THURS	9/11 12:33 AM MS	9/11 4:44 AM SOT	4:11	SUN/MON	9/28 7:39 PM EOT	9/29 4:32 AM MR	8:53
THURS/FRI	9/12 1:31 AM MS	9/12 4:45 AM SOT	3:14	MON/TUES	9/29 7:38 PM EOT	9/30 4:59 AM SOT	9:21
FRI/SAT	9/13 2:34 AM MS	9/13 4:45 AM SOT	2:11	TUES/WED	9/30 7:36 PM EOT	10/1 5:00 AM SOT	9:24
SAT/SUN	9/14 3:41 AM MS	9/14 4:46 AM SOT	1:05	WED/THURS	10/1 7:35 PM EOT	10/2 5:01 AM SOT	9:26
SUN/MON	none	none	--	THURS/FRI	10/2 7:34 PM EOT	10/3 5:02 AM SOT	9:28
MON/TUES	none	none	--	FRI/SAT	10/3 7:34 PM MS	10/4 5:02 AM SOT	9:28
TUES/WED	none	none	--	SAT/SUN	10/4 8:11 PM MS	10/5 5:03 AM SOT	8:52
WED/THURS	none	none	--	SUN/MON	10/5 8:52 PM MS	10/6 5:04 AM SOT	8:12
THURS/FRI	9/18 7:54 PM EOT	9/18 8:09 PM MR	0:15	MON/TUES	10/6 9:37 PM MS	10/7 5:05 AM SOT	7:28



EOT = End of Astronomical Twilight MR = Moonrise SOT = Start of Twilight MS = Moonset NOTE: Applies to Phoenix area (Mtn Std Time)

Bernie Sanden

1997 STARRY NIGHTS FESTIVAL

Thanks to an invitation from the Town of Yucca Valley, California, we will hold the first Western Region, Astronomical League (WRAL) star party, this fall. This festival is planned for October 24-26, 1997, so please mark your calendars for a fantastic astronomical event! For great dark sky observing, we received permission to use the nearby Blackrock Canyon Campground in the Joshua Tree National Park.

For programs, vendors, and speakers, we'll be using the Yucca Valley Community Services Center, again, thanks to the generosity of the town council. Jim Schooler, the Yucca Valley Community Services Director and I have agreed to serve as co-chairs of the festival. We will be holding a WRAL business meeting to elect new officers for the coming year. Nominations are now being accepted.

Among other activities, David Levy, noted astronomer and comet discoverer, and Richard Berry, former Editor-in-Chief of Astronomy magazine, have both agreed to be guest speakers. We will also hold workshops for supernovae searching, astronomy education for local teachers, a dark-sky update, and other topics. Hope to see you there!

Registration Form for the First Annual
Starry Nights Festival
Star Party and Convention for the
Western Region of the Astronomical League

Yucca Valley, California
October 24-26, 1997

NOTE: Attendees should arrange hotel lodging separately. Call the Yucca Inn, (619) 365-3311 in Yucca Valley for SNF rates. You must be registered for SNF to reserve a room at the Yucca Inn during these dates.

NAME: _____

ADDRESS: _____

PHONE: _____ E-MAIL: _____

1. Registration fee:

	Individual	Family
By October 1:	\$ 25.00 _____	\$ 35.00 _____
After October 1:	\$ 35.00 _____	\$ 45.00 _____

2. Campsite: We will observe from the Black Rock Canyon Campground in Joshua Tree National Park. There are a limited number of tent and RV spaces which will be assigned on a first come, first served basis. Some campsites will accommodate more

than one tent or RV with up to 8 people per site.

Camping is primitive, i.e., there is no electricity at the campsites. There are restrooms with sinks and running water, but no showers. People staying in motels in Yucca Valley will be permitted to set up telescopes in the campground for star gazing. Anyone staying all night in a tent or RV must pay a camping fee:

Camping fees: RV: \$10.00 _____ Tent: \$10.00 _____

Total (1+2 above) = \$ _____

Please make check payable to WRAL and mail to:

Tim Robertson Phone: (805) 584-6706
WRAL Treasurer
2110 Hillgate Way, #L
Simi Valley, California 93065

For additional information about the Western Region of the Astronomical league or the Starry Nights Festival, contact Bob Gent, SNF Co-chair, or e-mail at RLGent@aol.com.

FLORENCE JUNCTION SITE OPEN

The state land trust permit has been received. The club can resume holding star parties at Florence Junction. The permit number is 26-103183 and is good until August 14, 1998. Copies will be made available at the September meeting. For any further information contact Bob Kearney at 844-1732.

NEW EDITOR SOUGHT

After two years as editor, Bob Kearney has announced that it is time for someone else to take over the newsletter. Bob will continue as editor through the December 97 issue. If you are interested please contact Bob.

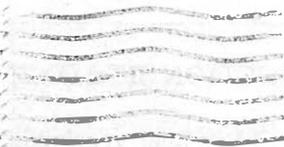
CLASSIFIEDS

Telescopes for Sale: A 10" f4.5 Coulter Odyssey Dobsonian. Good optics, new rack & pinion focuser, Telrad. No eyepieces. Good condition. \$325 o.b.o. A 6" F5 Newtonian with 2 eyepieces. (12.5mm Meade Ortho, 26mm Sirius Plössl) 1 Yr old - like new, metal focuser, Red with oak stand. \$450 o.b.o. 20" f/4.5 mirror - \$1900. - Pierre Schwaar (256-5533) (10-97)

For Sale: Twenty years of Sky & Telescope magazine (1977-1997), all in excellent condition. Asking \$200. Call Mike, (602)926-4765. (1-98)

• VAGN'S
 • GAMMA CYGNI
 • EVAC E-MAIL
 • STAR PARTY INFO
 IN THIS ISSUE

Valued member since Mar 16, 1997
 Next EVAC Meeting — September 10th



EAST VALLEY ASTRONOMY CLUB
 Robert G. Kearney, Jr., Editor
 2120 W. 8th Ave.
 Mesa, AZ 85202

EAST VALLEY ASTRONOMY CLUB—1997

EVAC Homepage—<http://www.psiaz.com/polakis/EVAC/evac.html>

President: Sheri Cahn 841-7034	Vice-President: Tom Polakis 967-1658	Treasurer: Silvio Jaconelli 926-8529	Secretary: Aaron McNeely 954-3971	Properties: Frank Honer 971-9468
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MEMBERSHIP&SUBSCRIPTIONS: \$20.00 per year; renewed in Dec. Reduced rates to *Sky&Telescope* and *Astronomy* available. Contact Silvio Jaconelli, 1700 E. Lakeside Dr. #59, Gilbert, AZ 85234 (602) 926-8529.

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.

NEWSLETTER: Mailed out the week before the monthly Club meeting. Send your thoughts and stories to: Bob Kearney, 2120 W. 8th Ave, Mesa, AZ 85202, (602) 844-1732. Email to—starjb@idt.net

CHANGES: Address, Phone Number, or Email: send to Sam Herchak, 145 S. Norfolk Cir, Mesa, AZ 85206, (602) 924-5981. Email to—76627.3322@compuserve.com

EVAC LIBRARY: The library contains a good assortment of books, downloaded imagery, and helpful guides and is usually brought to the Club meetings. Contact Frank Honer for complete details, (602) 971-9468.

BOOK DISCOUNTS: Great savings for members through Kalmbach and Sky Publishing. Contact Aaron McNeely, 4402 N. 36th St. #22, Phoenix, AZ 85018, (602) 954-3971. Email to—amcneely@primenet.com

EVAC PARTY LINE: Let other members know in advance if you plan to attend a scheduled EVAC observing session. Contact Robert Kerwin, (602) 837-3971. Email to—p24493@email.mot.com