

Saguaro Astronomy Club

Metro Phoenix, Arizona

SACNEWS



August 1997 — Issue #247

v7.26

Buckeye Hills Land Giveaway by Paul Dickson

On Tuesday, July 22, there appeared an article on the front page of the *Arizona Republic* about Maricopa County plans to give away Buckeye Hills Recreation Area to the Town of Buckeye, which in turn would give part of it to a developer. This article is of interest to SAC members since we have been using Buckeye Hills nearly monthly for the past 15 years as a Star Party site.

From the *Arizona Republic*:

“Maricopa County is planning to give one of its parks, 4,475 acres of nearly pristine desert, to the town of Buckeye. And Buckeye, in turn, intends to immediately hand over 780 acres of the park for free to a professor who dreams of building an Olympic training village there.

“He wants to start off, though, with some decidedly un-Olympic touches: a golf course, luxury homes and a private cemetery. Those are necessary, explains Ottawa University Professor Bill Maxwell, to help foot the bill for his \$120 million Global Academy for International Athletics.”

Several SAC members have been in contact with the authors of the newspaper article, their messages have been included below.

SAC Vice President, Gerry Rattley, also contacted the authors and, as a result, a photographer will be at the site for our regular club star party.

To see the article see:

<http://www.azcentral.com/news/0722giveaway.shtml>

Gene Lucas wrote:

I read with interest your article in today's *Arizona Republic*. It must have been a “slow news day” for an article on yet another attempted land grab by a developer with another crazy scheme to be put on the front page. Especially when the deal has the (apparent) token backing of municipal and county authorities (read... complicators in the grab.) If it sounds like my sarcasm control is turned up to “high”, that's probably true!

The beauty of our extensive county parks system

Quick Calendar

SAC Meeting

Speaker: Sheri Cahn: *Using the Hubble Archives*
7:30 PM, Friday, August 22

SAC Star Party

Buckeye Hills Recreation Area
Saturday, August 30

should not always depend upon the commercial value of the property or its availability for development. Right now it's Buckeye Hills Park — an underutilized property that the County Commissioners have supported for years and would like to unload at the closest opportunity. Next it might be McDowell Park — after all, it's too close to Scottsdale, and didn't it just about all burn up a couple years ago? A little commercial development would probably do wonders for both places (...NOT!!)

My interest in the Buckeye Hills Park story stems from my long-term interest in the hobby of amateur astronomy. Since about 1980, the Saguaro Astronomy Club, of which I am a founding member, has held regular observing sessions at the Park on a nearly monthly basis. Hundreds of amateur astronomers and many interested people from the general public have brought their telescopes out and enjoyed the beauty of the pristine, nearly unspoiled desert in the Park, and wondered at the heavens under the

SAC Officers

Area Code (602)

President	Adam Sunshine	780-1386 asunshine@netzone.com
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DIM MOMENTS
IN
**AMATEUR
ASTRONOMY**
by Paul Dickson

Adapted from the January 1985 SACNEWS

ARE
YOU GOING
TO LOOK
THROUGH THAT
THING

...OR ARE YOU
GOING TO
JUST STAND
THERE TALKING
ABOUT IT?

very dark skies, away from the glare of metropolitan Phoenix street lights. We have had visitors from many states, as well as from Europe and Australia visit our "star parties" and marvel over the incredible skies at Buckeye Hills Park. The Park is convenient to all parts of Phoenix, yet at about one hour's drive, it's about as close as serious astronomy can be done near Phoenix.

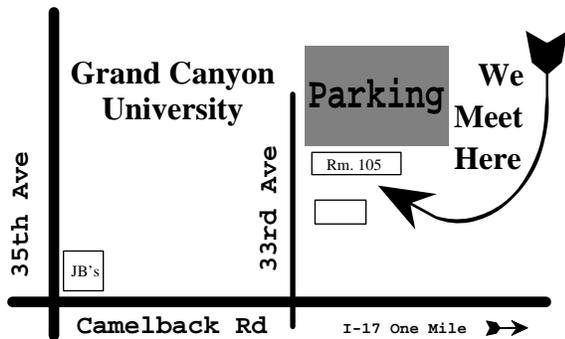
In 1985-86, Saguaro Astronomy Club members cooperated with KAET Channel 8 at ASU to photograph and videotape images of Halley's Comet, that were seen by tens of thousands of people on the television shows we participated in. While no major scientific discoveries have resulted from our use of the Buckeye Hills Park, the facility has provided a quiet, secure base for our observing sessions, which we share with the public. Since 1977, the Saguaro Astronomy Club has provided volunteers with their telescopes for public observing sessions several times

a year at a number of County Park sites, including Thunderbird Park in Glendale (managed by the City of Glendale); Reach 11 park in Scottsdale, South Mountain Park (City of Phoenix), White Tanks Park, and Buckeye Hills Park. These activities recently peaked again with the sensational public interest in the Hale-Bopp Comet (co-discovered by one of our members, Tom Bopp.) Our Thunderbird Park outing this spring attracted hundreds of curious spectators from the general public. Interest in our club and other valley astronomy clubs is at an all-time high.

Our club is one of only a handful of groups that have consistently utilized the Buckeye Hills Park facilities over the years. But our gentle, park-friendly, non-intrusive nocturnal activities can be easily destroyed by development and other light-attracting activities. Buckeye Hills Park is a unique facility for astronomy, since it has not

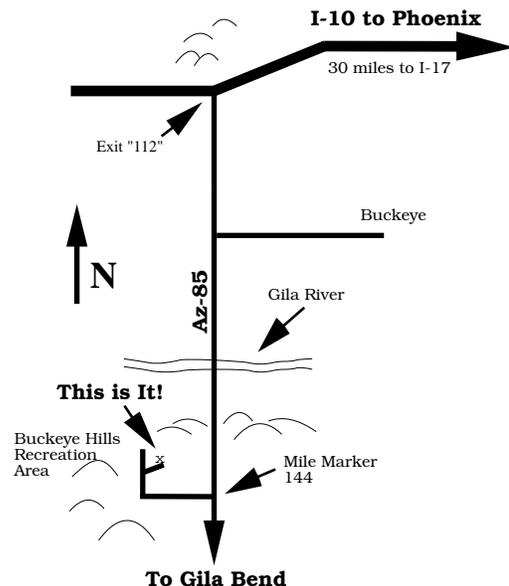
Directions to SAC Events

SAC General Meetings 7:30 PM at Grand Canyon University, Fleming Building, Room 105 — 1 mile west of Interstate 17 on Camelback Rd., north on 33rd Ave., second building on the right.



SAC Deep Sky Subgroup Meeting at John & Tom McGrath's, 11239 N. 75th St., Scottsdale, 998-4661 — Scottsdale Rd. north, Cholla St. east to 75th St., southeast corner.

SAC Star Parties at Buckeye Hills Recreation Area Interstate 10 west to Exit 112 (30 miles west of Interstate 17), then south for 10.5 miles, right at entrance to recreation area, one-half mile, on the right. No water and only pit toilets. Please arrive before sunset; allow one hour from central Phoenix.



been extensively developed, and is distant from the city lights.

I share the opinion of many of our members that if the proposed land transfer to the City of Buckeye goes thru, our access to the Buckeye Hills Park will surely be curtailed. The County Parks Dept. has been (in the past) very cooperative in facilitating our activities. For several years, we were allowed key access to the gated former Rifle Range area at the Park. This large, flat area with gated access road provided additional security for our activities, with no cost to the County Parks system (since they has abandoned use of the Rifle Range area.) However, when the City of Buckeye Police Dept. secured a franchise to exclusive use of this taxpayer-developed facility, we were forced to give up our key, even though our nighttime activities would not have interfered with any other users. Within a few months, the Buckeye authorities made it increasingly difficult for us to reserve the gated facility, so that our group was forced to seek an alternative, less desirable site at the Buckeye Hills Park. We were even unfairly accused (without any evidence and without a chance to answer) that our group had left trash at the site and caused damage — claims that were totally

unfounded!! Complaints registered by us with the Buckeye Police Chief and the County Parks Superintendent were ignored. We have continued to use an alternate site at Buckeye Hills on an informal basis, up until the present.

So our fear is that if the City of Buckeye authorities succeed in grabbing control of the County Park, they will surely force any small, “non-Buckeye approved” groups such as ours completely out of the picture, probably by using some specious logic such as beauracratc fears about liability exposure or unauthorized use, and/or by the imposition of “user fees” that will price the facility out of reach. But the issue is not about fees — the County spent a small amount years ago to grade the roads and put in the relatively small number of facilities at Buckeye Hills — it’s paid for. Very few groups use it now for free — why does anyone think we would want to pay a fee for use of the Park grounds in the future, especially if lights were added, which inevitably follows development such as “horse parks”?? The horse people probably give little or no support to other nearby facilities such as Estrella Mtn. Park or White Tanks — why would they choose to drive even farther out to Buckeye Hills to accomplish their activities? We go there because it *is* remote and undevel-

Comet Comments

by Don Machholz

(916) 346-8963 CC227.TXT July 8, 1997
 DonM353259@aol.com

1995 O1 (Hale-Bopp)					
Date	RA-2000-Dec	Elong	Sky	Mag	
07-21	07h07.1m	-08°55'	32°	M	4.3
07-26	07h13.0m	-10°45'	35°	M	4.4
07-31	07h18.8m	-12°36'	37°	M	4.6
08-05	07h24.3m	-14°28'	39°	M	4.7
08-10	07h29.6m	-16°21'	42°	M	4.9
08-15	07h34.7m	-18°16'	45°	M	5.0
08-20	07h39.5m	-20°13'	47°	M	5.1
08-25	07h44.1m	-22°11'	50°	M	5.3
08-30	07h48.4m	-24°11'	52°	M	5.4
09-04	07h52.4m	-26°12'	55°	M	5.5
09-09	07h56.2m	-28°15'	58°	M	5.6

A new comet has been recently discovered in the southern sky. Meanwhile, **Comet Hale-Bopp** continues to dim in the southern sky. Both comets will be briefly visible to many Northern Hemisphere observers in a few months.

The new comet was discovered by Vello Tabur of Australia on July 2. He used an 8-inch *f*/4.7 reflector to find the tenth magnitude object, which was situated in the morning sky, far south of the sun and out of view of Northern Hemisphere observers. It was Tabur who had made the last visual discovery-nearly a year ago. **Comet Tabur** (C/1997 N1) will appear in the evening sky for northern observers in early September.

The solar-orbiting satellite SOHO has picked up five additional small comets as they headed toward the sun. Most of the 17 comets found by the satellite belong to the Kreutz Sungrazing Group, all were faint and seen only by the satellite. Most disappeared as they rounded the sun.

COMET HUNTING NOTES: With Tabur’s find, six of the last seven visually-discovered comets have been found south of the celestial equator; and 14 of the last 17 visually-discovered comets have been found in the morning sky.

C/1997 N1 (Tabur)					
Date	RA-2000-Dec	Elong	Sky	Mag	
07-21	07h05.0m	-16°50'	40°	M	8.0
07-26	07h40.1m	-12°30'	34°	M	7.5
07-31	08h12.7m	-07°39'	27°	M	6.9
08-05	08h42.8m	-02°21'	20°	M	6.2
08-10	09h10.9m	+03°24'	12°	M	5.7
08-15	09h37.7m	+09°31'	5°	M	5.5
08-20	10h04.2m	+15°35'	4°	E	5.8
08-25	10h31.1m	+21°08'	11°	E	6.4
08-30	10h59.0m	+25°56'	18°	E	7.1
09-04	11h28.5m	+29°58'	24°	E	7.8
09-09	11h59.7m	+33°15'	30°	E	8.4

Orbital Elements

Object:	Hale-Bopp	Tabur
Peri Date:	1997 04 01.13800	1997 08 15.24722
Peri Dist:	0.9141405 AU	0.3832189 AU
Arg/Peri (2000)	130.58915°	345.44824°
Asc Node (2000)	282.47069°	148.24000°
Incl (2000):	089.42943°	086.40198°
Eccentricity:	0.9951172	1.0
Orbital Period:	~2500 years	Long Period?
Reference:	MPC 29568	IAU Cir. 6694
Epoch:	1997 06 01	1997 08 15
Absol Mag/“n”:	-1.0/4.0	9.0/4.0

Fuzzy Spot

by Ken Reeves

Scutum

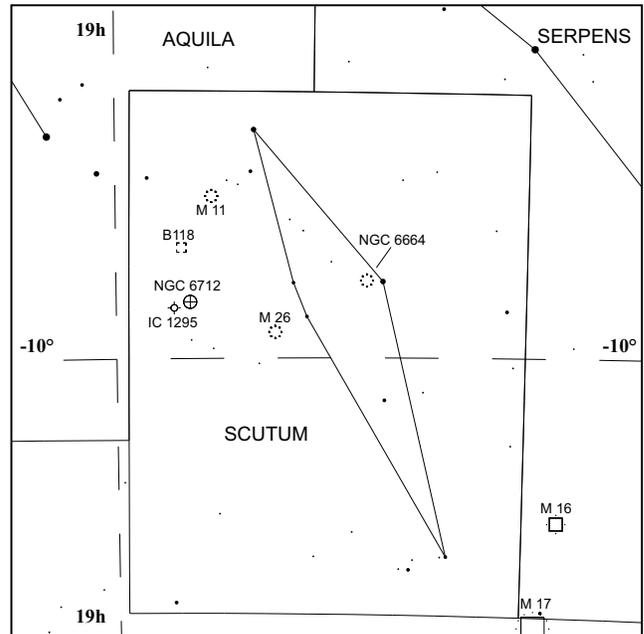
August 1997

Scutum is one of those tiny constellations that doesn't have much going for it in the way of bright stars. While it is sparse in bright stars, the deep sky objects more than make up for it. Even though this is one of the smallest constellations in the sky (the 5th smallest), it contains 2 Messier objects, 2 Herschel 400 objects, and 1 from *SAC's 110 Best of the NGC* objects. The SAC Deep-Sky Database shows 77 objects, with planetary nebulae being the primary ingredient.

Dark nebula also abound in Scutum. Although these objects are usually of little interest to observational astronomers, **B-118** is shown in Vickers Deep Space CCD Atlas and has a comment as Very Opaque.

The other object type of great abundance in Scutum is the open cluster. Some of the lesser known catalogs are represented here including (from the SAC database): Do (Dolidze), Ru (Ruprecht), Tr (Trumpler), and Bas (Basel). Although these obscure catalog objects aren't usually very rewarding visually, it is sometimes fun to hunt down a few just to say that you've done it.

Anyhow, on with the observations.



NGC 6664 (18h36.7 -08°13). This open cluster is very large, very bright, fairly loose, and somewhat condensed. I counted 41 stars in five levels over a fairly hazy and granular background. The stars form a sort of "U" pattern opening to the S. To the W is a bright star, Alpha Scutum. This cluster is big and bright enough to be visible nicely in binoculars.

Continued on next page...

oped.

As for the proposed scheme to "develop" Buckeye Hills Park, the tenuous nature of the supposed "plans" and the lack of any credible financial support tells the entire story. Many developers show up when there is the smell of cheap or free "public" lands available. Where on earth will the developer find enough water to support his proposed golf course and luxury homes, etc.?? What about environmental concerns?? Has there been *any* studies started on the impact of the proposal?? If the County authorities have been planning this (without disclosure of their discussions with the Buckeye authorities) for three years, why hasn't there been any public discussion of the land transfer? I believe that the transfer would likely be found to be illegal if challenged in court. But our group has little or no resources to even attempt to mount such a fight.

I hope you will continue to follow this story—it's clear to me the County and Buckeye authorities do not have the interests of the average citizen at heart in this matter.

Thanks for listening to my comments—I'm just another "little guy" who pays his taxes and gets no attention from the County authorities.

Wil & Sharon Milan wrote:

We are very troubled that Maricopa County officials are thinking of turning Buckeye Hills Park—a quiet, se-

cluded park in which one can enjoy the beauty of the desert—into yet another real estate development.

What happened to the idea that the purpose of the government land is to hold it in trust for everyone? Or does our county government see itself only as a procurement agency for developers? When developers negotiate to buy up a desert park to turn it into asphalt and concrete, who speaks for the quiet beauty which will forever be lost?

Please, let's not allow this to happen. Let's keep Buckeye Hills Park a place where we, the taxpayers, can continue to enjoy the peaceful beauty of the desert. We taxpayers and citizens own this park, after all, and we are not obligated to sell just because developers want more land to bulldoze. We need to preserve our dwindling desert a lot more than we need another development.

Newsletter Deadline

Mail items for Such-a-Deal at least two weeks before the end of the month. Articles that need to be published in a timely fashion must be submitted or the newsletter editor notified of the article at least 6 weeks before month they are published. Items arriving too late for an issue will be included in the next newsletter.

Continued from previous page...

NGC 6694 (18h45.2 -09°24) **M 26** is an open cluster that is not very big, moderately bright, not very condensed, and somewhat poor. I counted about 15 stars including 2 fairly bright stars, and a total of 4 levels of stars. On the WNW side is a very nice curving chain of stars.

NGC 6705 (18h51.1 -06°16) **M 11** is considered the premier of the Messier open clusters. It is so loaded with stars, that I decided not to draw the individual stars, just the outline. I saw it as pretty large, very bright, extremely rich, and pretty well condensed. The cluster is dominated by a bright star, with two more levels of stars surrounding it. I estimated about 80 to 100 stars (on a 5/10 night for transparency) in the 10 inch. I noted a star poor lane bisecting the cluster N/S, just to the E of the bright central star. Also, about halfway out of the cluster on the W is another star-poor area, this one protruding in from the S.

NGC 6712 (18h53.1 -08°42). A globular cluster (the only one in Scutum listed in the SAC database) which I saw as pretty large, pretty bright, and round.

I was able to resolve about 20 stars in the center using averted vision, otherwise I considered it as a granular haze. A nice globular, and a nice break from all the open clusters.

IC 1295 (18h54.6 -08°50) This is a planetary nebula next to NGC 6712. It sits in the middle of a flattened triangle of stars. I was virtually unable to see it without the UHC filter, however with the filter it was nearly as bright as 6712. This is a nice round planetary, and with averted vision, it appeared as slightly dimmer in the middle. I was quite surprised to see an IC planetary this nice.

B-118 (18h53.9 -07°27) This dark nebula is a challenge to all of us. I have not attempted to observe this object (as of the time this was written), and I do not have any notes, only the picture in Vickers book. Let's see at the Deep-Sky meeting if this is an observable object.

Herschel 400 Objects

6664, 6712

SAC's 110 Best of the NGC Objects

6712

Cruise to '98 Eclipse

Steve Coe

As many of you know, there is an excellent solar eclipse on Feb. 26, 1998 near the Caribbean island of Aruba. Princess Cruises is planning a week long cruise into the path of the eclipse and you can join in with the Arizona eclipse chasers. **There are only 2 double occupancy cabins remaining** and they will go quickly on the sparkling new ship, Dawn Princess.

A deposit of \$200 will be required to confirm and hold your space on the cruise, with the total amount due by Nov. 1, 1997.

Welcome Aboard agency is holding three cabin types: 8 are BB category, which are outside/balcony cabins @

\$2,172 per person; 1 is F category, which is an inside cabin @ \$1,846 per person; 6 are JJ category, which are inside cabins @ \$1,712 per person.

This price includes round trip air fare to and from San Juan, Puerto Rico and all applicable port taxes for stops in St. Thomas, Dominica, Grenada and Caracas.

Our travel agent for this darkness at noon rendezvous is Biff Treston at Welcome Aboard in Scottsdale, Arizona. He is not an astronomer, but is learning by being around me for several hours. Biff can certainly answer any questions you might have concerning the cruise ships or accommodations. You may reach him at 946-5333 during the day, or 486-2819 at home; speak to Biff or Hymie.

I know that this seems very distant, but putting a group of this size together requires advance planning. I have no doubt that a winter eclipse in the Caribbean will attract large numbers of observers, so get on the phone to

Such-A-Deal

SUCH-A-DEAL is a place to advertise equipment, supplies, and services related to amateur astronomy. This is a free service for SAC members and friends. SAC is not responsible for the quality of advertised items or services. All insertions must be submitted in writing.

Wanted — Motor drive for 8" f/6 Newtonian on German Equatorial mount. My 17 year old single axis AccuTrack 3117 is beginning to fail. It doesn't track well during astrophotography and needs either to be fixed or replaced! Make me a deal, make me an offer. A.J. Crayon, acrayon@primenet.com, (602) 938-3277.

For Sale — For Sale: 6" f/5 Alt-Az "Companion" — like new. Excellent optics. 2 eyepieces, Telrad base. \$450. Pierre Schwaar, 265-5533.

For Sale — For Sale: 20" f/4.75 mirror. Chip on back but otherwise excellent shape. Including diagonal, \$1950. Pierre Schwaar, 265-5533.

Biff or Hymie if you are interested in sailing to an eclipse.

Being an active Arizona astronomer for 20 years, I know for a fact that there are lots of interesting, exciting, knowledgeable and fun-loving folks around here. That is really the motivating factor about trying to get this together, an opportunity to meet and spend some time with a fun bunch under the Moon's shadow!

1997 Starry Nights Festival by Robert Gent

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!

For registration information contact: Tim Robertson, SNF Registrar, 2110 Hillgate Way, #L, Simi Valley, CA 93065. E-mail: trobart@earthlink.net. Phone (805) 584-6706.

Bits and Pieces Coming Events

Star Parties

All-Arizona	Oct. 3–4
Starry Nights Festival	Oct. 24–26

Meteor Showers

Perseids	Aug. 11
Leonids	Nov. 16

Minutes from the June Meeting

Adam Sunshine opened the June meeting at 7:30. Guests were asked to introduce themselves and we had 1 guest present.

A.J. Crayon talked about the SAC Anniversary shirts for sale. The Deep Sky Meeting is next month. The constellations of Virgo (west) and Ursa Major.

Paul Dickson has copies of *SAC's 110 Best of the NGC* and *The Messier Logbook*. Paul also brought along information on the Mars Pathfinder.

Steve Coe talked about the novice meeting at his house. There was about 15 people that showed up. The next meeting will be at a Buckeye or another site in the near future.

For Show and Tell we had Steve Coe who showed some slides of the comet, Chris Schur showed us slides of the comet, and Rick Rotrammel who showed us slides from the RTMC. Nice job guys.

We had 35 people in attendance when the crowd was turned loose to buy, buy, buy at the June Swap Meet.

—David Fredericksen, SAC Secretary

August Club Meeting

The speaker for the August club meeting will be the EVAC President, Sheri Cahn. Her topic will be about a project she did using the Hubble Space Telescope archives. Besides the results of her project, she will describe how she processed raw HST images.

Newsletter Articles Needed

This is another periodic request for articles for the newsletter. This is a club newsletter and club members get priority. If you have anything to contribute, please send it in. The SACNEWS editor's E-mail address is on the front of the newsletter and the mailing address is on the back.

If you want to write an article, but you aren't sure the subject is relevant to amateur astronomy, give the newsletter editor a call or send E-mail.

—Paul Dickson, SACNEWS Editor

Gene Shoemaker

Below are two Web sites in memorial of Gene Shoemaker, who died on the afternoon of July 18, 1997. The auto accident happened 10 km west of the Tanami gold mine, on the Tanami Highway, 300 miles from Alice Springs, Australia.

<http://wwwflag.wr.usgs.gov/USGSFlag/Space/Shoemaker/>
<http://www.lowell.edu/lowell/eugene/geneshoemaker.html>

August 1997

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> All Times are Mountain Standard Time </div>					TAAA Meeting (Tucson)	Tomorrow New Moon 1:15 A.M.
					1	2
Mercury at greatest elongation 27° (evening)						Jupiter at opposition
3	4	5	6	7	8	9
Sun enters Leo 5 A.M.	First Quarter Moon 5:43 A.M.	Perseid Meteors Peak: 12 A.M. Z.H.R. 100	EVAC Meeting (SCC: Rm. PS172)			
10	11	12	13	14	15	16
	Full Moon 3:57 A.M.				SAC Meeting Grand Canyon University, Fleming Rm. 105	
17	18	19	20	21	22	23
August 24: Last Quarter Moon 7:25 P.M.					Asteroid Ceres at opposition (Mag. 7.7)	SAC Star Party Buckeye Hills (members&guests)
24/31	25	26	27	28	29	30

Magazines & Discounts

Club members may subscribe to astronomical magazines at reduced rates through the club Treasurer. See the Member Services Form on the back page of this newsletter. Furthermore, club members are encouraged to align their subscriptions with the Jan.–Dec. calendar year. This eases the burden both on the Treasurer and the Publisher by permitting a single Group Renewal to be placed in the autumn for the upcoming calendar year.

Those members who experience problems with their subscriptions to *Astronomy* magazine may call Kalmbach Publishing Customer Service at (800) 446-5489.

Those members who experience problems with their subscriptions to *Sky & Telescope* magazine may call Sky

Publishing at (800) 253-0245.

Besides the club discount on *Sky & Telescope* magazine, Sky Publishing offers club members a 10% discount on all other Sky publications. This means books, star atlases, observing aids, Spotlight prints, videos, globes, computer software, and more.

Club members who subscribe to *Sky & Telescope* through the Club Discount Plan may order Sky publications directly, at the above toll-free number, without going through the club Treasurer. Simply mention the Club Discount Plan and give the Saguaro Astronomy Club name to receive the discount. Sky Publishing will check their records to verify that you are eligible to receive the discount.

Saguaro Astronomy Club Member Services Form

Membership

Memberships are for the calendar year and are prorated as follows: Jan - Mar 100%, Apr - Jun 75%, Jul - Sep 50%, Oct - Dec 25%.

- \$28.....Individual Membership
- \$42.....Family Membership (one newsletter)
- \$100.....Business Membership (includes advertising)
- \$4.....Nametag for members
- \$14.....Newsletter Only

Subscriptions

The following magazines are available to members. Subscribe or renew by paying the club treasurer. You will receive the discounted club rate only by allowing the club treasurer to renew your subscription.

- Sky & Telescope.....\$27.00 for one year
- Astronomy.....\$20.00 for one year

Write your name, address, phone number, and E-mail address in the space below.

Make checks payable to SAC.
Mail the completed form to:

David Fredericksen
SAC Secretary
6222 W Desert Hills Dr
Glendale AZ 85304

SAC and SAC Meetings

Saguaro Astronomy Club (SAC) was formed in 1977 to promote fellowship and the exchange of scientific information among its members — amateur astronomers. **SAC** meets monthly for both general meetings and star parties, and regularly conducts and supports public programs on astronomy.

SAC meetings are usually held on the Friday nearest the full moon. This means that over the course of the year, meetings are not held on the same week of the month. The same is true of the club's star parties. Star parties at Buckeye Hills Recreation Area are mostly held on the Saturday of the third quarter moon.

SAC General Meetings: 7:30 PM at Grand Canyon University, Fleming Building, room 105 — one mile west of Interstate 17 on Camelback Rd, north on 33rd Ave., second building on the right. See inside for a map to the meeting location.

1997 SAC Meetings

Jan. 24
Feb. 21
Mar. 21
Apr. 25
May 16
Jun. 20
Jul. 18
Aug. 22
Sep. 19
Oct. 17
Nov. 14
Dec. 13 Party

1997 SAC Star Parties

Date	Sunset	Moonrise
Jan. 4	5:37PM	3:50AM
Feb. 1	6:03PM	2:35AM
Mar. 1	6:28PM	1:23AM
May 31	7:34PM	3:01AM
Jun. 28	7:44PM	1:43AM
Jul. 26	7:34PM	12:25AM
Aug. 30	6:58PM	4:56AM
Sep. 27	6:20PM	3:46AM
Oct. 25	5:46PM	3:33AM
Nov. 22	5:25PM	1:18AM
Dec. 27	5:31PM	6:22AM

SACNEWS

c/o Paul Dickson
7714 N 36th Avenue
Phoenix AZ 85051

Stamp

First Class Mail

Inside:

- Buckeye Hills Land Giveaway
by Paul Dickson
- Dim Moments by Paul Dickson
- Comet Comments by Don Machholz
- Fuzzy Spot by Ken Reeves
- 1997 Starry Nights Festival by Robert Gent

SAC Meeting — August 22
SAC Star Party — August 30