

Saguaro Astronomy Club

Metro Phoenix, Arizona

SACNEWS



May 1993 — Issue #196

1993 Arizona Messier Marathon

by A.J. Crayon

The 1993 Arizona Messier Marathon was held on Saturday, March 20, 1993 at the Arizona City, Az. site. The marathon was attended by members of Astronomy Clubs from around the state: Saguaro Astronomy Club (SAC), East Valley Astronomy Club (EVAC) of Scottsdale, Az. and Tucson Amateur Astronomical Association (TAAA). As the sun set there were 37 scopes, just waiting to get started. By morning twilight the count had dwindled to 15 scopes still set up but only a few had observers glued to the eyepiece still working. While the numbers are paltry for Arizona observers, one must consider that these people turned out even though the skies had been completely cloudy all day Saturday and there was no guarantee that things would get better.

By 5 PM only about 4 degrees of sky had began to clear in the west. By 8 PM, astronomical twilight for our site, the clear skies were only about 8 degrees above the

**The chase was on in earnest,
we had a real Messier
Marathon on our hands!**

horizon, not enough to really start. Ted Heckens, president of EVAC, set his scope up on M 51, not the one in Canes Venatici but a picture from his favorite astronomy magazine. He was hoping for a first place plaque for one object.

The less than ideal weather didn't stop Leon Knott who was waiting patiently for the slightest opening in the clouds. Finally, when it came he was only one to bag M 77 and first to bag M's 31 and 32. The chase was slowly beginning. By 9 PM things cleared up enough for many others to start. The chase was on in earnest, we had a real Messier Marathon on our hands!

Leon continually had quite a line of people looking through his binoculars and telescope as he merrily made

Quick Calendar

Encanto School Star Party
14th Ave. and Osborn Rd.
Monday, April 26

Mirror Making Class
Scottsdale Community College, Rm. PS 181
7:30 PM, Thursday, April 29

Public Star Party
Thunderbird Park
North of Union Hills on 59th Ave.
Saturday, May 1

SAC Meeting
Show-N-Tell Marathon
7:30, Friday, May 7

Deep Sky Meeting
Corvus, Crater, Hydra, Sextans
Thursday, May 13

SAC Star Party
Buckeye Hills Recreation Area
Saturday, May 15

Riverside Telescope Makers' Conference
May 28-31

SAC Meeting
7:30, Friday, June 4

his way from object to object, describing many to the onlookers. Around 1:30 AM the clouds moved in again. A little while later a calf paid us a visit and stay around the observing field for about 30 minutes. A nice diversion while waiting for the clouds to clear.

The clouds were so bad many observers decided to

SAC Officers

President	Bob Dahl	582-5526
Vice President	Tom Polakis	966-2625
Treasurer	Carol Lee	946-9206
Secretary	Susan Morse	934-7496
Properties	Rich Walker	997-0711
SACNEWS Editor	Paul Dickson	841-7044
Public Events	Piet Burggraaf	995-1964

sleep for a while, but left word for a wake up call should the sky clear. Unfortunately the clouds didn't clear until about 4:00 AM. But once the clouds started clearing a flurry of activity followed. The wake up call didn't come because the few observers that toughed it out by NOT sleeping were trying to get those last few available objects to boost their counts as high as possible. The sleeping observers, which included the author, were left to their own dreams!

In those final minutes of darkness some sucker holes appeared. Making the best of it Jim Stevens used binoculars to find his remaining objects. Paul Lind used a faster method for his remaining objects: setting circles!

When the dust had cleared, the sky brightened and the observing forms turned in, the following winners were announced: First Place: Paul Lind, 94 objects. Second Place: Jim Stevens, 82 objects. Third Place: Leon Knott, 75 objects. Certificates for 50 or more: Deer Valley High juniors Steven Conner and Matt DeMartino; AJ Crayon and Tim Kenyon. Leon is from EVAC, Tim from TAAA

and the remainder are from SAC. The awards were presented at the April Club meetings for SAC and EVAC members. The TAAA award was mailed to Tim.

Thanks are due to a number of people, Steve Coe, Tom Polakis and Bob Dahl to mention a few. Above all thanks are due to the three clubs for their interest and enthusiasm. Finally, we mustn't forget the observers who showed up. Without ya' we wouldn't have had a Marathon.

Due to the high interest level a 1994 Arizona Messier Marathon will be planned. No doubt the sleepers won't be caught napping this time!

Newsletter Deadline

Mail items at least two weeks before the end of the month. Items arriving too late for an issue will be included in the next newsletter.

Comet Comments

by Don Machholz

(916) 346-8963

April 8, 1993

Although recent attention has been turned to the supernova in M 81, our local community—the solar system—has had a few surprises of its own. While Periodic Comet Schaumasse fades in our evening sky, a strange, but faint, Comet Shoemaker-Levy has been discovered. To this we add two more comet announcements, and the discovery of a “cometoid.”

1993FW: Do you remember Asteroid 1992QB₁, found last August 30? It is a large object, about 200 miles across, and 40 AU from the sun. We are still not sure if it is an asteroid or a comet, and it is not expected to get much closer to the sun. Now the same team (J. Luu and D. Jewitt,) using the 2.2m telescope at Mauna Kea, has found a second object. Also at 23rd magnitude, but on the opposite side of the solar system (near RA 12h53m, Dec. -3°), an early estimate places it at 38 to 56 AU from the earth. We'll learn more as observations come in.

Comet Mueller (1993d): This comet was found on plates taken Mar. 19 by Jean Mueller and J. Mendenhall during the course of the second Palomar Sky Survey. It was at magnitude 17 and north of the Big Dipper. We now know that it will reach perihelion this summer at a distant 6.1 AU. It will remain faint.

Comet Shoemaker-Levy (1993e): Carolyn and Eugene Shoemaker and David Levy discovered this comet on plates exposed Mar. 24 from Mt. Palomar. Only 4 degrees from Jupiter (and 1 degree from object 1993FW), the comet displayed a linear image about 1' long. Later observations showed multiple nuclear bright spots, with

several tails. A close approach to Jupiter last summer may have broken it up. An early orbit suggests a 10-year period, and a distant (3.9 AU) perihelion. I'm including positions below. The comet is roughly 14th magnitude, those of you with large telescopes and/or photo/CCD equipment might wish to give it a try.

Periodic Comet Forbes (1993f): M. Candy of the Perth Observatory recovered this comet on Mar. 21 at magnitude 14. It has a 6.1-year orbital period, and is not expected to get much brighter.

Periodic	Comet	Schaumasse	(1992x)		
Date	RA-2000-Dec	Elong	Sky	Mag	
04-28	10h07.9m	+34°03'	103°	E	10.8
05-03	10h26.1m	+31°18'	103°	E	11.2
05-08	10h42.8m	+28°34'	103°	E	11.6
05-13	10h58.1m	+25°52'	103°	E	12.1

Comet	Shoemaker-Levy		(1993e)		
Date	RA-2000-Dec	Elong	Sky	Mag	
04-28	12h11.3m	-02°30'	146°	E	13.9
05-03	12h09.7m	-02°20'	141°	E	13.9
05-08	12h08.4m	-02°11'	135°	E	13.9
05-13	12h07.3m	-02°05'	130°	E	14.0
05-18	12h06.4m	-01°59'	125°	E	14.0
05-23	12h05.8m	-01°56'	120°	E	14.0
05-28	12h05.5m	-01°54'	115°	E	14.1
06-02	12h05.5m	-01°53'	110°	E	14.1
06-07	12h05.7m	-01°54'	106°	E	14.1

Bits and Pieces

Coming Events

There are a lot of late April events that didn't make the April newsletter, so this issue will hopefully arrive early enough to let you attend them.

After the private star party at Encanto School, our second public star party for this spring is scheduled for May 1 (National Astronomy Day) at Thunderbird Park.

On April 29, the first meeting for a newly forming mirror making class will take place.

The May meeting will consist of an extended Show-N-Tell session by members. If you want to make a 10-minute presentation to show-off what you've done, contact Tom Polakis.

The 25th anniversary of the **Riverside Telescope Makers' Conference** is swiftly approaching. It is May 28 through 31. A discounted price is available for those who register before May 1. Gates open at 9 AM Friday, May 28. Those who are interested in attending and haven't already received info, contact Gene Lucas at 934-1889 or call 909-948-2205. If you are interested in presenting a talk, contact Gene before May 1.

The 3rd Annual **Grand Canyon Star Party** is scheduled for June 12-19. If you are going, you need to make plans quickly. For more details, see the March newsletter.

Deep Sky Meeting

The Deep Sky Group is made up of people that like to observe celestial bodies out past the far reaches of our Solar System. These bodies include stars, nebula and galaxies. If you are interested in sharing your observations, or

knowing what they look like in telescopes — then by all means come join us at the next meeting. We will discuss Deep Sky objects in Corvus, Crater, Hydra, and Sextans. The meeting will be held at John McGrath's house; directions are here in the newsletter.

You don't need to RSVP, we don't extend special invitations to anyone — ourselves included. If you are interested show up, we'd love to have you.

The Deep Sky meeting will take place on Thursday, May 13 at 7:30pm.

Minutes of the April Meeting

President Bob Dahl opened the meeting at 7:30 PM with a welcome to all newcomers and visitors. Piet Burggraaf reported that National Astronomy Week would be the focus at the Encanto School star party for the students on April 26. [Please see his article in this newsletter for details. -ed] He also wanted SAC members to be newswatchers and clip any astronomy articles from the newspapers or videotape any TV programs and give to him.

Carol Lee gave the Treasurer's Report — we now have 98 full members. Rich Walker currently has all the books and pamphlets in the SAC library and they are available for check out. Leon Knott will have a mirror making class at Scottsdale Community College starting April 29 in room PS 181. Please call him for details at 461-1758. A.J. Crayon mentioned that the next Deep Sky meeting constellations will be Hydra, Corvus, Crater, and Sextans and the time is in the newsletter. A reminder about the Sentinel star party—it is on Saturday, April 17. An award for the 110 Best Double-Stars was given to Vivian Crispin. The Messier marathon awards went to A.J. Crayon, Matt

Mirror Making Class to Begin

Would you like to make your own, high-quality telescope, telescope mirror or lens? If so, you are invited to join a class beginning at the time and place noted above.

Some Important Particulars:

At this first, very important meeting, we will discuss mirror diameters, focal lengths, costs, meeting times and other numerous aspects of the class. Questions of all

**Class scheduled to begin April 29,
1993, 7:30 P.M. at Scottsdale
Community College, Rm. PS 181.**

kinds will be entertained. You may sign up for the class at the end of this meeting.

The quality of your finished mirror or lens will be higher than commercially available optics, but at the same time depending upon your desire and dedication.

All materials, instruction (including unlimited telephone consultation) and testing, necessary to bring your mirror to the coating stages will be provided and included in the cost of the class. The cost of your finished mirror will likely run substantially less than half the cost of a similar sized mirror from commercial sources.

Arrangements have been made with a coating company in Tucson to coat all students' mirrors for one half the normal cost (example: 12.5" — \$17.50.)

The class will be instructed by M. Leon Knott, Technical Advisor to *Amateur Telescope Making Journal* and owner of Starstorm Optical Co.

Cost Schedule for Classes (based upon mirror size):

4.5" — \$50	10" — \$170	18" — \$875
5.0" — \$55	12.5" — \$325	20" — \$1000
6.0" — \$70	14.25" — \$425	
8.0" — \$110	16" — \$550	

For More Information Call: M. Leon or Fannie Knott 461-1758.

Don't Miss This SAC Extravaganza

by Pieter Burggraaf
Public Events Coordinator

Our program for National Astronomy Week 1993 just may be the biggest public event we've ever held: the week will begin April 26 with a "closed" star party and associated educational events at Encanto School (14th Avenue and Osborn Road.) Then, the big event will be our traditional public star party on May 1 at Thunderbird Park in north Glendale. There is a place for every club member to help.

This is the second year we will present a program at Encanto School: we will set up telescopes outside in the school yard to give students, parents and teachers views of Jupiter, Mars, the moon and whatever else is easy to see. Inside, which attendees will rotate to on a school-like schedule, we will help present programs on the *Powers of Ten* video, a walking model of the solar system and a slide presentation from the International Dark-Sky Association (IDA) (just like the March club meeting program.)

"Closed" means that this is just for Encanto School (actually the whole Osborn School District); there maybe 300-500 people there. So, please don't invite the public and your friends to the Monday night event. Instead, tell everyone you know about our public star party on Saturday, May 1.

I am arranging for media coverage of the Encanto School event — newspapers and television. This will automatically promote our public star party the following Saturday. I'm looking for hundreds to come out.

How can you help? First of all we need all the telescopes we can get out for the Encanto School program; this is a Monday night, but it is in town and the program should be over by 10 P.M. If you did not sign up to bring a scope at the April SAC meeting, please call me at 995-4273 (days) or 995-1964 (evenings) to get your name on the list. In addition, I'll need a speaker to present the IDA slides; I have prepared a script that should take twenty minutes to read while pushing through about fifteen slides. I have a brief background book that will give the speaker a little knowledge to answer some questions. More difficult questions can be passed off to handout literature that will be available.

For the Saturday public star party let's make an unheard of goal: **wouldn't it be impressive if everyone in SAC showed up with a telescope.** (Secretly, I have

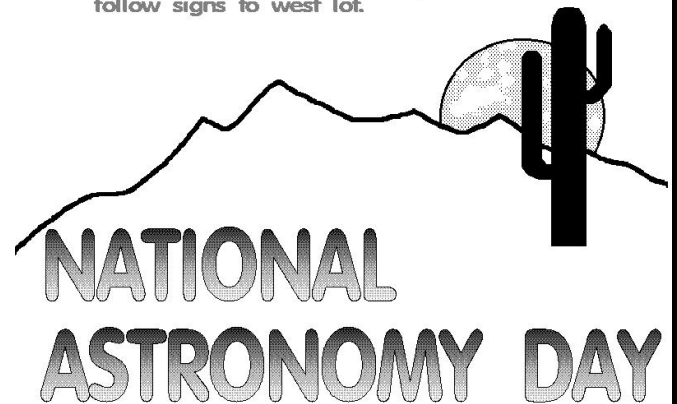
DeMartino, Steve Conner, and Jim Stevens. Paul Lind won first place for finding 94 objects. Thanks to all for coming and congratulations to the winners. A.J. described the conditions as mostly cloudy and that he slept through most of the night.

See The Night Sky

through telescopes provided
by local amateur astronomers

SATURDAY - MAY 1, 1993
7:00 - 10:00 P.M.
Thunderbird Park* Glendale

*Enter park from 59th Ave., 1/2
miles north of Beardsley Rd.;
follow signs to west lot.



plans to enter our public star party in a national competition for the best National Astronomy Day event; having a hundred telescopes at Thunderbird Park will sure help!) Again, if you didn't sign up to bring a telescope at the last SAC meeting, give me a call and tell me "I'll bring one."

I need a photographer and someone else with a video camera to document both events: I'd like to have prints and a tape to submit with the entry for the national competition.

Finally, I need everyone to watch the newspapers (especially the regional sections), TV news (especially weather forecasters), and listen for radio announcements about our Saturday public star party. I'll need to make a comprehensive list of what you heard and when.

Tom Polakis invited all members from the club to present an extended "Show 'n Tell" for the program for the next meeting. He also discussed the supernova in M 81 — a must see item for all. For the "Show 'n Tell" portion of the show, Stan Student showed pictures of the supernova

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.

Telescope—DynaScope RV-6 Newtonian, 6" *f*/8.3, Clock-driven equatorial mount — tripod, 1.25" eyepieces. \$100. Steve Pence, 516-0242.

in M 81 and Chris Schur showed his astrophotos about his observatory and sightings. After the break, the main speaker, David Burstein gave his presentation on "Mark matter and the fate of the universe." It was quite interesting and in depth.

Respectfully submitted from notes taken by Tim Lee at the meeting. —*Susan V. Morse, SAC Secretary*

SACNEWS Directions

by Paul Dickson
SACNEWS Editor

Where is SACNEWS going? Even as the editor of this newsletter, I ask this question too infrequently. The answer has generally been only the simple goal of keeping SAC members informed and improving the newsletter. The mapping of that goal to reality has been: Find out what's happening and print it; if it looks good and it interests me, do it. So far I have heard very complaints (all about things that need improving) and have even received some compliments. That still leaves me with a vague goal at best.

So what can I do with the newsletter to further improve it? What part of the club can I better address with

the newsletter? Then one afternoon, an idea broke the surface. How about a series of articles about basic astronomy. Something for those new to astronomy and, at the same time, have enough detail for everyone else. It's a good idea, but it suffers from the lack of having someone to research and write the articles. Would anyone be interested in writing such articles?

On a different note, I have been using my access to the Internet to listen (scan is a better word, but its connotations don't match my meaning) for possible articles for the newsletter. Of those that I find, I've been asking permission from the authors and such before using them. Doing so reminds me of what someone said in one of the Internet digests: Asking permission for reuse is always interesting and informative. I have also found that it leads to more articles.

Speaking of the Internet, SACNEWS is now available on the Internet via anonymous FTP on the Georgia State University system chara.gsu.edu in the directory **sacnews**. These are the Postscript files that I use to generate the newsletter. All issues that I have generated are on-line there — Jan. 90 through this issue. Issues before Feb. 93 have pieces missing. The full page inserts and pasted artwork weren't digitized.

Future issues are tentatively being planned. Cur-

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 same week of the month. The same is true of the club's star parties. Star parties at Buckeye Hills are mostly held on the Saturday of the third quarter moon.

1993 SAC Meetings

Jan. 8
Feb. 5
Mar. 5
Apr. 2
May 7
Jun. 4
Jul. 2
Aug. 27
Sep. 24
Oct. 29
Nov. 19
Dec. 18 Party

1993 SAC Star Parties

Date	Sunset	Moonrise
Jan. 16	5:46pm	3:11am
Feb. 13	6:12pm	2:05am
Mar. 20	6:41pm	5:24am
Apr. 17	7:01pm	3:55am
May 15	7:22pm	2:25am
Jun. 12	7:38pm	12:55am
Jul. 17	7:38pm	4:44am
Aug. 14	7:15pm	3:39am
Sep. 11	6:40pm	2:15am
Oct. 9	6:03pm	1:04am
Nov. 6	5:33pm	11:57pm
Dec. 11	5:22pm	6:35am

rently, I have several people working on articles for future issues of the newsletter (one has been in the works for over a year now), although none of these are in my hands at the moment, I'm hopeful. I'm looking at running another series of articles from EJASA. This would last several issues. I have gotten positive feedback about the moon race articles and I think these articles will be as equally well received. And yes, I will run more of the moon race articles when I get them.

If you write something for SACNEWS, send it to Paul Dickson, SACNEWS editor. The articles in this issue came by E-mail through the Internet, by hand on a 3.5" DD IBM-PC disk, and by hardcopy via the US postal service. If you have digitize pictures or drawings, send them as Encapsulated Postscript files. Other formats will need to be converted with some effort and time. I can also digitize diagrams and photos, but I still playing with the quality of the latter.

For those of you with worried thoughts in the back of your minds, rest easy. I'm not planning on abdicating by position as editor just yet. I'm still growing into the position. Putting together SACNEWS has been a lot of fun even as I learn. I've improved my writing skills by not only reading and writing articles, but corresponding with the authors. I look forward to continuing work on it.

Observer's Column

Sentinel Star Party

by Steve Coe

The 1993 Sentinel Star Party had everything: lots of scopes and folks, plenty of astronomical fun and unfortunately, some clouds. Just as it was starting to get dark I counted 48 telescopes and estimated 65 people in attendance. When it got good and dark, a large opening in the clouds came over and people started to observe a variety of objects.

I put my 13" on M 81 to look at the supernova and rapidly had a line of people ready to see an explosion in another galaxy. I also observed several open clusters: M 35, M 37 and NGC 2247 as a test of my new 22mm Panoptic eyepiece. I found the eyepiece to be excellent for image contrast, eye relief and field flatness.

A trip around the observing field found Pierre Schwaar observing Comet Levy-Shoemaker, Bob Bryant using his newly acquired 10" f/5 on a Bigfoot mount on a variety a objects and the giant 36" from Steve Overholt was trained on Omega Centauri.

About this time the clouds closed in for a while a folks gathered to discuss a wide-ranging set of subjects. We talked of the Space Shuttle, attending the Texas Star Party vs. Riverside and CCD imaging vs. silver-based photography. Once we solved all those problems, the clouds opened again and people set about viewing the heavens again.

Rich Walker, A.J. Crayon and Leon Knott all had their scopes on Jupiter, which was very steady and showed off lots of detail. Even more amazing with so many clouds on the horizon. Art Zarkos was trying out a new tracking platform and Frank Mercaldo was dialing to objects with a set of digital setting circles he installed on his 17.5" on a Bigfoot.

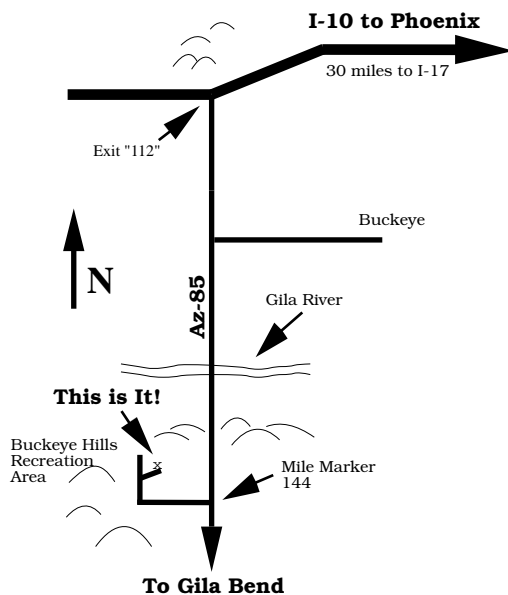
Just before midnight the clouds closed in again and most people called it a night. A few optimists stayed on in the hopes that a new hole in the clouds would roll over the horizon.

This kind of turnout showed me that we should definitely set up a Sentinel Star Party for next year. I think the members of several clubs: SAC, EVAC, PAS, TAAA and the Yuma group have proved that they will certainly show up for this type of activity and that is encouragement enough for myself and Tom Polakis to set up a date for the future. Thanks to all who attended and we will see you next time.

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 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.

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.

May 1993

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						Public Star Party Thunderbird Park 1
2	Jupiter 7°N of Moon 3	Eta-Aquarid meteor shower 4	EVAC Meeting Directions: Joe Murray 482-2918 5	Full Moon Yesterday 8:34 p.m. MST 6	SAC Meeting 7	8
9	10	11	12	Last Quarter Moon 5:20 a.m. MST 13	Pluto at opposition 14	SAC Star Party Buckeye Hills (members & guests) 15
16	Venus 6°S of Moon 17	18	19	PAS Meeting Directions: Jerry Belcher 938-2932 20	New Moon 7:06 a.m. MST Partial Eclipse Max 5:47 a.m. 21	22
23/30	24/31	25	Mars 7°N of Moon 26	27	First Quarter Moon 11:21 a.m. MST 28	Riverside Telescope Makers' Conference May 28-31 29

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 pro-rated as follows: Jan - Mar 100%, Apr - Jun 75%, Jul - Sep 50%, Oct - Dec 25%.

- \$20.....Individual Membership
- \$30.....Family Membership (one newsletter)
- \$100.....Business Membership (includes advertising)
- \$4.....Nametag for members
- \$10.....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 treasurer to renew your subscription.

- Sky & Telescope.....\$20.00 for one year
- Astronomy.....\$16.00 for one year

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

Make checks payable to SAC.
Mail the completed form to:
Carol Lee
SAC Treasurer
3314 N 68th Street, #205-W
Scottsdale AZ 85251



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

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