

Sierra Foothills Amateur Radio Club





Newsletter

users.newworld.net/wingman/sfarc
October 2002
P.O. Box 1005, Newcastle, CA 95658



2002/3 Calendar of Events

(Operating Events in Italics)

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REPORTERS

Satellite Report
Greg Dolkas, KO6TH
30 Years Ago at the SFARC
Gary Cunningham, KQ6RT

REPEATERS

145.430 (-0.6 MHz/PL 162.2)
440.575 (+5.0 MHz/PL 94.8)
223.860 (-1.6 MHz/PL 100.0)

CLUB NET

All welcome to check in
Thursdays, 7:30PM, K6ARR/R
145.430

CLUB MEETINGS

Second Friday of the month,
7:30PM at the Auburn
Library, 350 Nevada St,
Auburn

CLUB BREAKFAST

Last Sat of the month at
Susie's Café, Cirby at
Riverside, Roseville - 8:00 AM

NET CONTROL OPS

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Gary Cunningham, KQ6RT
Joe Sylvia, KF6OQY
Casey McPartland, K6WJM

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- | | |
|------------------|------------------------------------|
| <i>Oct 5-6</i> | <i>California QSO Party</i> |
| Oct 11 | WHITE ELEPHANT SALE |
| Oct 18-20 | Pacificon '02 (see inside) |
| Oct 26 | Club Breakfast |
| <i>Nov 2-4</i> | <i>ARRL Sweepstakes (CW)</i> |
| Nov 8 | Regular Meeting (elections) |
| <i>Nov 16-18</i> | <i>ARRL Sweepstakes (Phone)</i> |
| Nov 30 | Club Breakfast |
| <i>Dec 6-8</i> | <i>ARRL 160M Contest</i> |
| Dec 13 | Christmas Dinner |
| Dec 28 | Club Breakfast |
| <i>Jan 1</i> | <i>Straight Key Night</i> |
| Jan 10 | Regular Meeting |

IN THIS ISSUE

President's Reports

VE Team Report

AMSAT Oscar-Echo

Digital Musings

From the President's Shack

**Richard
WA6RWS**



Do you know what time it is? For all you Howdy Dowdy fans it is time for the white elephant sale. Don't forget to bring some of that good stuff you want to donate to the club and be sure and bid on good stuff to take back to the shack. Remember we take anything at the sale even cookies and cakes.

The year is going fast and next month is the elections. I'm sure some of you are glad for that so that you can get rid of the bum you have for president!!!

Seriously, if anyone is interested in running for office, please contact Roger N7TK who is on the nominating committee. We need two more club members for the committee.

Thanks to Casey for volunteering to be secretary until we have elections.

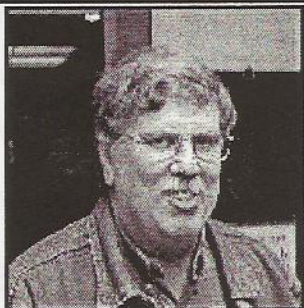
Board of Director's meeting will be October 4th at the Round Table Pizza Place in Loomis. Everyone is invited to attend.

Hope to see everyone at the white elephant sale on October 11th. Remember it is at Recreation Park, 123 Recreation Drive, Auburn. Talk-in on club repeater.

73,
Richard, WA6RWS

30 & 40 Years Ago In SFARC

**Gary
KQ6RT**



Forty Years Ago at SFARC

Auburn, Calif.
Oct. 10, 1962

President Dick Lund called the meeting to order and minutes were read and approved. Treasurer Jim Carmen being on vacation, there was no treasurer's report given.

Gus Gerke suggested that the Sunday Net be moved to about 3860 KC since by previous experience he had found this channel fairly open. We are using 2 N met on high or low end and hope to be established soon.

Gus made an illustrative talk on an article which he had sent to the 73 magazine. He demonstrated how to convert a 6 volt system to use with 12 volt equipment. One system works only while engine is running and the other transistor system works at all times. We all enjoyed his talk.

Bob Richier has been planning to visit a TV studio for the next meeting and details are to be worked out later. He also donated rejected tubes which many club members were able to use.

Refreshments were served and meeting adjourned at 9:45 P.M.

Respectfully submitted,

Sage Otow

Thirty Years Ago at SFARC

Oct. 7, 1972

Carman and Weger attended a CARC meeting whereby K6CBP became an associate member with a suggested assigned pair of 146.16 input, and 146.76 out, with 146.76 simplex

Oct. 8, 1972

K6CBP purchased a Motorola 2-m station with Carman currently fixing it up for operation as a repeater station. Paid \$105.00 to Clyde Derby, WB6IAW.

Oct. 22, 1972

K6CBP purchased a shed for \$90.00 for a repeater site, 4' x 8' x 7' high, from the Royal Oaks Mobile Park. Also obtained free of charge a heavy duty tower from the Bureau of Land Management (Auburn Dam), which we dismantled and is now in storage at K6ARR.

73,
Gary, KQ6RT

Amateur Satellites

**Greg
KO6TH**



AMSAT OSCAR-Echo

There are two FM Low-Earth-Orbit satellites that have been carrying a large portion of the regular amateur satellite phone traffic, UO-14 and AO-27. Both birds have been in orbit for many years, and are showing signs of age.

UO-14 was launched in January of 1990. During the nearly 13 years it has been in orbit, the satellite has had three different missions. Initially it was a science and technology test bed for the University of Surrey. Then, for many years it served as a digital packet store and forward relay for communicating medical information into central Africa. A few years ago, it entered its third life as an FM "bent pipe" repeater, after its digital system suffered a problem ending its digital mission.

AO-27, launched in September of 1993, is 9 years old. It also serves as a bent pipe repeater, listening on 2 meters and repeating what it hears on 70cm. But it, too, is in poor health due to a weak battery. The satellite operators have turned the repeater function off, in hopes of letting the battery recover. So far, it seems to be working, allowing the repeater to be turned on periodically. But it appears that its remaining life is limited.

So, what to do? The easy answer is: Build a new satellite! And, so they are. Dubbed "Amast-Oscar-E", this will be the first satellite in 12 years to be built and launched by Amsat-NA. The last one, known as Amsat-Oscar-D before launch, was renamed AO-08 when it became operational. Following the tradition of sequentially numbering our Amateur Satellites, you can see it's been a while since that launch; the last satellite was given a number in the mid-40's!

But wanting to build a satellite, and really doing so, are two different things. Fortunately in those 12 years, the art of satellite building has become quite a bit more of a science, and also a business. The core of the satellite – its structure, power generation and routing, command & control computers, attitude control hardware, software, and the basic radio equipment – is now able to be subcontracted out. Oscar-E's core will be built by SpaceQuest Ltd., a company owned and staffed largely by a number of Amsat-NA members. Adding to the basic frame will be additional experimental payloads of particular interest to Amateur Radio.

Many proposals for experimental payloads were received and reviewed. Some were rejected for reasons of cost, size, power consumption, or risk. Some of the remaining ones include an advanced digital communications facility, LF band (136 khz) reception, and an APRS digipeater. These

will be added to the SpaceQuest core to complete the satellite. One item of considerable note: the satellite, not counting the external antennas, is to be the size of a cube measuring only 10 inches on a side.

A mock-up of the proposed satellite, and an excellent paper detailing the satellite's design are available on the Internet at: <http://www.amsat.org>, following the link to "Amsat Oscar Echo" in the "Today's Feature" section.

73,
Greg KO6TH

VE Test Report

The VE team held its most recent test session on September 7th at the Roseville Sutter Hospital in Roseville resulting in two new hams and three upgrades.

Results for 9/7/02 Session

	Examination Elements			
	1	2	3	4
Passed	1	2	1	1
Failed	0	0	0	0
TOTAL	1	2	1	1

New Licenses Earned

Tech	General	Extra
2	2	1

VE examination sessions are regularly held on the first Saturday of the month at the Roseville Sutter Hospital beginning at 8 AM and running until about 10:30 AM or until all test takers are complete. All amateurs and individuals wishing to become amateurs are welcome to attend and no pre-registration is required.

The VE team itself finds these sessions enjoyable and a pleasant opportunity to gather with a group of hams to discuss a wide range of topics, have breakfast if desired, and have an enjoyable gathering while providing a much needed service. Any amateur wishing to become a member of the VE team is welcome to attend and observe the proceedings to see if this is something he or she might like to do. The team operates under the auspices of the ARRL VEC and is open to all.

Upcoming Testing Dates

Saturday, October 5th

Saturday, November 2nd

Please note that there will be a change in location for test dates starting in December 2002. The new location will be announced next month.

See you there – 73's from the VE team !!

73,
Rob, WW6G

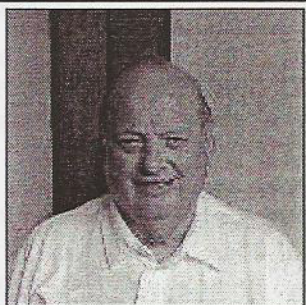
Swap Meets

Foothill Flea Market - 2nd Saturday of each month from March through October at Foothill College, Los Altos.

Livermore Swap Meet - 1st Sunday of each month at Las Positas College in Livermore, 7:00 AM to noon, all year. Talk in 147.045 from the west, 145.35 from the east. Contact Cliff Chiba, KF6EII, larkswap@usa.com

**Sac Valley
Section**

**Jetti Hill
W6RFF
SM**



The big news in the Pacific Division in October is, of course, Pacificon, sponsored again this year by the Mt. Diablo Amateur Radio Club. The dates are October 18, 19,

and 20, and it will be held again at the Airport Sheraton in Concord.

General tickets are \$10 in advance, or \$15 at the door, and gives you general admission to many events as well as the exhibitor's hall on Saturday and Sunday. Also, the Pacificon Swap Meet will be held on Saturday morning from 0600 – noon..

There are also several special forums:

- Friday, all day, is the "always sold-out" Antenna Forum. This forum is extremely popular, and admission is \$10 via pre-paid ticket.
- ARRL General Counsel Chris Imlay, W3KD, will lead a half-day legal seminar aimed primarily at practicing attorneys, and covering amateur communications issues.
- Saturday morning there will be a buffet breakfast (\$12.50) featuring ARRL President Jim Haynie as the keynote speaker.
- The banquet Saturday night will be a served dinner of chicken or beef (\$35/person), and will feature Chris Imlay as the speaker.
- Two T-Hunts on Sunday: The first begins at 0800, will be conducted within a half-mile of the hotel, and will be structured for beginners. The second, at 0900 will also be a walking hunt, but the rabbit will be a bit harder to find.

Forums for QRP, sponsored by the NorCal QRP Club, Emergency Services, and general interest subjects, as well as walk-in VE Test Sessions on Saturday and Sunday.

More info is at www.pacificon.org. See you in Concord!

SFARC Breakfast

The monthly SFARC Breakfast, held at Susie's Café at the corner of Riverside and Cirby in Roseville has been enjoying increasing attendance.



The group meets at 0800, enjoys breakfast, and lots of socializing. The photo, thanks to Rob, WW6G, shows Gerri Metke, K6GKR, Eileen Greenslade, and Steve, KF6OCE during

the "eating phase" of the event.

All SFARC members and their guests are welcome to attend and participate. From I-80, exit at Riverside toward Roseville. Kaiser is on your right, and Cirby is the first signal after the interchange. Turn left on Cirby, and then make the first left into the parking lot. There will undoubtedly be someone monitoring 145.430 if you get lost.

California QSO Party

(Ed. Note: This may reach only the e-mail recipients of the News in time, but it's an operating event you don't want to miss)

The Cal QSO Party ("CQP"), sponsored by the Northern California Contest Club, will be held on Oct 5-6 from 1600Z (0900 PDT) to 2200Z (1500 PDT). Possibly the premier State QSO Party in the country, this is your chance to be sought-after, since everyone wants to contact you. Quite a bit of DX will be heard as well, since many stations are looking for counties.

Non-CA stations attempt to work as many CA stations in as many of the 58 counties as they can. CA stations work as anyone, and multipliers are the 50 US states and 8 Canadian provinces. You can also work California stations for QSO points, and the first one gives you CA as a multiplier. You are required to log the county designator for CA stations however. CW QSO's count 3 points and phone count 2.

Each band/mode combination counts separately, so you can work a station as many as ten times (5 bands + 2 modes). The usual 80, 40, 20, 15, and 10 meter bands apply (no WARC bands). Your exchange is the serial number of the QSO and your county. You will receive a serial number and either a state or county (if in CA). More info can be found at www.cqp.org.

Digital Musings

Rob Carpenter, WW6G
ww6g@arrl.net

Digital activity, and particularly PSK31 activity, has been strong throughout September with particularly good

openings on 15 meters and 10 meters in the late afternoons. Those PSK31 frequencies [21.070 and 28.120] have seen many potential contacts to Japan and surrounding countries with strong signal reports. Late afternoon trans-equatorial paths to South America have also been open especially to Argentina, Brazil, Panama and Uruguay. With an occasional European station coming down the waterfall as well, it has been fun, even if you only have 20 minutes. Later in the evening, 20 gets a lot of activity as the noise levels subside and you will see less activity on 15 and 10, but there is an occasional rare one up there ! For 20, try listening around 14.070.

If you have an HF receiver and would like to listen to the action, simply take your audio out put [line out or speaker out] from your rig and run it to the line in [or microphone in with a little earphone volume control RS Cat.#: 42-2559] on your sound card. Install any of the software on the PSK31 and other digital modes disk. Digipan is a good choice for PSK31 because it is freeware. Just click on a waterfall trace and watch the QSO's. For those with HF privileges on those frequencies, to transmit you need to run the audio back from the soundcard line out to the rig. I know of several individuals who simply used their microphone right next to their computer's speaker to transmit. After all, they say, audio is audio. Not the most sophisticated solution, but I have worked individuals using this method. Obviously, background noise would be an issue and I make no comment on the "domestic tranquility" aspects of playing PSK31's warbling whistle out loud in your home.

Some interesting new and relatively inexpensive interfaces are also available. The Rascal™ is available fully assembled and tested for about \$50 depending on transmitter model from <http://www.packetradio.com/psk31.htm> which is about 1/2 the cost of the products from MFJ and West Mountain Radio [RigBlaster]. For certain transmitters, the unit is also available in kit form for ~ \$25 depending on the model. This design is an opto-isolated model and seems well thought out. The schematic is available at: <http://www.packetradio.com/rascalnu.htm>. My only concern with the design is the use of an RS232 port on the computer to control PPT. Depending on how many RS232 ports you have on your computer, you may want to reserve one port for CAT control between your computer and transceiver. As usual, I do not endorse any particular brand, and no commercial endorsement of any kind is made here.

Interestingly, do not forget about the possibility of using low cost, simple cables. The same site, <http://www.buxcomm.com/page1/bccpage1.htm> contains a page with many pre-wired cables - like the 13 pin DIN connector used with an ICOM 706MKIIG's ACC1 plug. With 2-1/8" connectors, this should make a complete audio cable between a computer sound card and the 706. I plan to build one this month and will let you know next month how it comes out ! Many Yaesu's are even simpler to "wire up" with a "data port" which accepts a standard 1/8" stereo plug. If any of our members would like help getting PSK31 set up, drop me a note.

If you are a PSK31 fan and like contesting, or if you are just a PSK31 fan and want to make a lot of contacts, do not miss

the Tara Rumble (Fall Classic). This contest will run at 0000Z-2400Z on Oct 5 - the first weekend in October. Tara, the Troy Amateur Radio Association of Troy, N.Y., sponsors this activity twice a year and it is a lot of fun. Frequencies: 80, 40, 20, 15, 10, 6 meters, work stations once per band. Categories: Club Challenge (see Web site), Normal (100 W), Great (20 W), Super (5 W), Novice, & SWL. Exchange: Name and SPC. Score: QSOs × (W + VE + JA + VK call areas + 1 point per entity). Multipliers count once per band.

73,

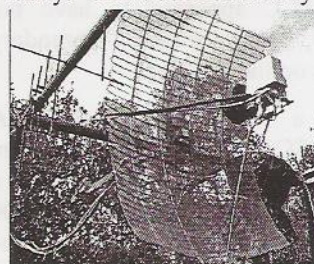
Rob, WW6G

SFARC Satellite Reporter Is Speaker at September Meeting

SFARC's resident space communications expert, Greg,

KO6TH, was the speaker at the September meeting. Greg's presentation covered a variety of topics in the area of Amateur Satellites, including the history, various types, characteristics of orbits, how to work them, typical equipment, and where to find tracking software, antennas,

and other items. This photo is a shot of Greg's antenna array. The 70cm circularly polarized beam is on the left, a 2m beam on the right and the S-band (2.4 GHz) antenna is mounted on the boom.



The bottom photo is a close-up of that antenna. The box with the feed horn is a converted Drake downconverter.

Greg has been active on satellites since 1993 when he made his first contact with Arizona on RS-10. His best DX has essentially been half-way around the world, and he lists his "worst DX" as Stockton, CA. (Ed. Note: I heard Greg on the AO-27 downlink some time ago, and if I could have gotten into the uplink with a bit more power, his worst DX would have been Auburn)

Greg also discussed the recent resurrection of AO-7, originally launched in 1974. It operated well until 1981, when its batteries wore out and shorted. Apparently, in the 21 ensuing silent years in space, they continued to deteriorate, and finally "un-shortened," permitting the solar cells to once again power the transponder and control system when the spacecraft is in sunlight. It's now being used by amateurs again, 28 years after it's birth. Not bad for amateurs, no?

Thanks Greg for a great presentation

National Ham News

(From the ARRL Bulletins and ARRL Letter)

A. Prose Walker, W4BW, SK

Former FCC official A. Prose Walker, W4BW, died August 8 following a brief illness. He was 92. Walker, who headed the FCC Amateur and Citizens Division from 1971 until 1975, made the initial proposal for three new amateur allocations at 10, 18 and 24 MHz during an International Amateur Radio Club (4U1ITU) meeting in Geneva in 1972. Later, he organized and chaired the US preparatory committee for the Amateur Service--the Advisory Committee of Amateur Radio--which took the initial steps to turn the idea into reality at the 1979 World Administrative Radio Conference.

Walker's most recent recognition came at Dayton Hamvention 2000, when he was recognized with a special achievement award, an honor his daughter, Helen Herman, said he coveted among many other more prestigious awards. The award recognized his work in obtaining the new amateur allocations more than two decades earlier.

NTIA Objects to New 5MHz Amateur Allocation

ARRL President Jim Haynie, W5JBP, and General Counsel Chris Imlay, W3KD, say they're optimistic about reaching a resolution to issues that could otherwise block plans for a new 5 MHz band. Until surprise opposition surfaced from the National Telecommunications and Information Administration (NTIA), the FCC appeared to have put ARRL's request for a new, domestic-only, secondary amateur allocation at 60 meters on the fast track.

In an eleventh-hour move a month ago, the NTIA recommended in a letter to the FCC--sent after the comment deadline--that the Commission not go forward with a proposal for an Amateur Radio allocation at 5250 to 5400 kHz. The NTIA regulates radio spectrum allocated to the federal government.

"We are working together with the Federal agencies involved toward a solution of the impasse raised by the NTIA letter," Imlay said after he and Haynie attended a series of meetings September 19 in Washington, DC.

In an August 21 letter, acting NTIA Associate Administrator for Spectrum Management Fredrick R. Wentland worried that the 5 MHz proposal the FCC put forth last May at the ARRL's request "does not adequately provide for protection from harmful interference to these critical government operations" in the band.

After initially huddling this week with NTIA and FCC officials and staff members, Haynie and Imlay met face-to-face with representatives of the agencies involved to share mutual concerns.

"They are willing to work with us," Haynie said. "I don't think we'll get everything we want, but it's certainly a start." One difficulty in the negotiations is that some of the information on the government's use of the 5-MHz frequencies involved is classified.

Imlay said the discussions tended to center on power restrictions and frequencies but emphasized that no decisions were reached. The ARRL proposal called for a 150-kHz wide band and the full legal power limit. Imlay hinted, however, that perhaps a smaller band than the one requested coupled with some power output limitations, was a real possibility.

The ARRL has called the 5 MHz allocation "an urgent priority of the Amateur Service." Until the latest snafu, the FCC had been expected by early next year to issue a Report and Order on proposals for the 5-MHz band, a new low-frequency allocation in the vicinity of 136 kHz and primary Amateur and Amateur-Satellite status at 2400 to 2402 MHz.

And Speaking of 136 KHz

Radio Club Argentino <http://www.lu4aa.org> President Roberto Beviglia, LU4BR, reports that Argentinian amateurs will be the next to gain access to the 136-kHz LF band. As a result of a rule proposal the club made to federal officials, he reports, a portion of the 136-kHz band has been allocated to the Amateur Service on a secondary basis in Argentina. The segment 135.7 to 137.8 kHz will be coordinated by the Radio Club Argentino until it is finally assigned on a primary basis within a year.

The ARRL DXCC Desk reports that it has received evidence that the Yemen operation by Pekka Ahlqvist, OH2YY, in May 2002 was conducted with written approval from the Yemeni government. "Credit for QSOs with 7O/OH2YY from May 4 through May 11, 2002, will be given effective immediately," said ARRL Century Club Manager Bill Moore, NC1L.



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**MAJOR SPONSOR OF
THE SFARC FIELD DAY!**

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White Elephant Sale

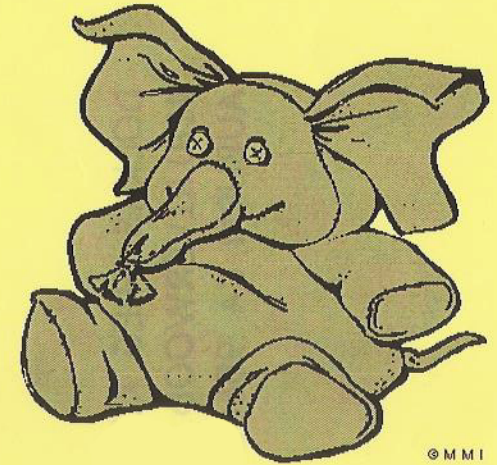
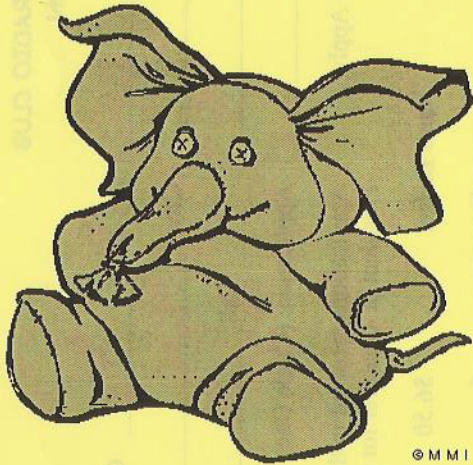
October 11, 2002 - 7:30PM

Recreation Park 123 Recreation Drive, Auburn, CA

Bring all that stuff that is collecting dust and buy some treasures at bargain prices.

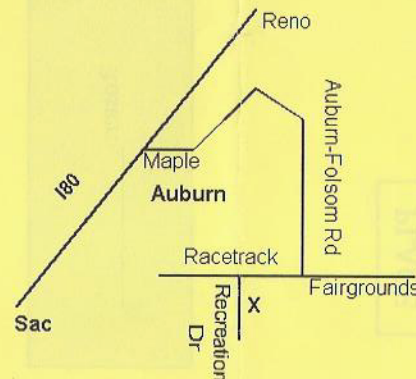
**Len Taylor WB6HGS
is back as our
Auctioneer**

**Bring the Whole
Family
for
A fun filled
Evening**



From Sacramento, take I80 East to the Maple Street offramp in Auburn. At the courthouse Maple Street becomes Auburn-Folsom Road. Go straight through the intersection which is now Auburn-Folsom Road to Fairgrounds/Racetrack Street. Turn right onto Racetrack Street and then left onto Recreation Drive. First parking lot on the left. Go up stairway to main building.

Sponsored by:
Sierra Foothills ARC
Talk-in 145.43 - 162.2PL



SIERRA FOOTHILLS AMATEUR RADIO CLUB
2003 MEMBERSHIP APPLICATION

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Address: _____ City: _____ State: _____ Zip: _____

Associate Name: _____ Call: _____ Class: _____

Phone Number: _____ Application: (Circle One) New Renewal

Member Dues: Circle Amounts That Apply. Applications received in the middle of the year will be pro rated. Contact the President or Treasurer for exact rate.

Membership: \$22.00 Name Badge: \$6.50

Associate: \$ 7.00 Repeater Donation: \$ _____

Auto Patch Donation: \$ _____ Newsletter Booster: \$ _____

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