

# SCCARA-GRAM

Santa Clara County Amateur Radio Association

Volume 11, Number 7

July 1995

## President's Prose

The heated weather is here. Field Day '95 is over. Temps over 105 degrees° F were common in the Bay Area for several consecutive days. I enjoy "nice" weather--70° F. Well, I guess we can't have it all.

August is SCCARA's picnic month. Maybe we should consider Gomez park in Santa Clara again. We did use this park for the past several years and all who attended had a good time.

Does anyone know someone that is interested in microwave experimentation? Hands-on building of equipment, etc.? Maybe we can get a program on microwave communication in the near future. See our V.P. Hugh KD6EFL and *PUT IT IN THE MICROWAVE*.

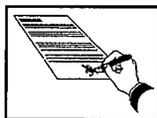
Are there still any builders out there? Several years ago one of the greatest kit suppliers made available many kits for receivers/transmitters, transceivers, test equipment, radio control systems for model boats, airplanes, cars, and other devices. That was Heathkit Company, Benton Harbor Michigan. Now it looks like it's for the profit only... I bet if someone came out with a "GOOD QUALITY KIT" like the old Heathkit, sales would go through the roof.

Just talk to anyone that was a ham not so long ago. Back when these kits were available we all built them... What a thrill! You build it, then you checked it over with the instructions (they were good), then you tested it. WOW! No smoke! Normally it worked OK, but if you rushed or were not careful you would get one of your pals to "check it out."

Now you can still find Heathkits at flea markets, like Foothill, Livermore (at the college 1<sup>st</sup> Sunday every month, 12 months a year), or other Hamfest flea markets.

If you are recently licensed or are reminiscing, it's not to late: "what should I build?" It will be a lot of fun...*TRY IT SOMETIME!*

73, Mike Marneris K8ERL



## Calendar

- 7/8 Foothill Electronic Flea Market
- 7/10 SCCARA General Meeting
- 7/24 SCCARA Board Meeting--(San Jose Red Cross, 7:00p, all are welcome)
- 8/12 Foothill Electronic Flea Market
- 8/14 SCCARA General Meeting

### Next General Meeting

- Day: Monday, July 10, 1995
- Time: 7:30 PM
- Place: United Way Building
- Agenda: Roy K6VIP will talk about the VEC program (volunteers who give amateur license tests).

The United Way Building, 1922 The Alameda, San Jose, (about one mile South West from the San Jose Air Port). From I-880: take the Alameda turn-off going South, then turn left immediately on McKendrie. From the South: go North on the Alameda, 1/2 block past Hedding turn right on McKendrie.

As soon as you turn onto McKendrie (heading East), turn right into the parking lot just behind the small church on the corner. Park at the far end of the lot. The main entrance is up the steps at the South East corner of the building. There is wheelchair access at another door at the North East corner, but for security reasons, only one door is open at a time--someone will have to notify the guard if you need wheelchair access. Also, try not to be too late--the doors may be closed with nobody around to let you in.

The San Jose Red Cross: South-West corner of North 1<sup>st</sup> and Plumeria Dr. Plumeria is two lights North of Trimble and South of Montague Expressway. From the South on I-880, take the 1<sup>st</sup> Street exit, go North. From the North on I-880, take the Montague (Trimble) exit, go West to Trimble then turn right (North) on 1<sup>st</sup>; (if you miss Trimble, just follow Montague then turn left (South) on 1<sup>st</sup>). From the South on US-101, take the Trimble (De La Cruz) exit going North, then turn left (North) on 1<sup>st</sup>. From the North on US-101, take the Montague exit going North/West, then turn right (South) on 1<sup>st</sup>. The main entrance faces Plumeria (North). Board meetings are open to all.

The *SCCARA-GRAM* is published monthly by the SANTA CLARA COUNTY AMATEUR RADIO ASSOCIATION, PO Box 6, San Jose, CA 95103-0006. Permission to reprint articles is hereby granted, provided the source is properly credited.

SCCARA was formed as a general interest amateur radio club in 1921 and became a non-profit corporation in 1947. SCCARA is an affiliate and *Special Services Club* of the American Radio Relay League.

The club station, W6UW, is currently out of service.

Articles for the SCCARA-GRAM must be submitted to the editor by the last Monday of the month.

**OFFICERS and DIRECTORS**

President	Mike Marners, K8ERL	243-9042
Vice President	Hugh Collis, KD6EFL	246-9374
Secretary	Gary Mitchell, WB6YRU	265-2336
Treasurer	Rex Skiver, N6BUO	263-5277
Station Trustee	Stan Getsla, WA6VJY	275-0735
Director	Dan Dietz, WM6M	458-3460
Director	Don Apte, KK6MX	629-0725
Director	Imre Takacs, KD6MZM	251-9686
Director	Don Village, K6PBQ	263-2789
Director	Lou Steirer, WA6QYS	241-7999

**STAFF**

Editor	Gary Mitchell, WB6YRU	265-2336
Facilities	Don Village, K6PBQ	263-2789
Historian	Jean "Doc" Gmelin, W6ZRI	973-8583
Mailman	Tony Sanchez, K6MOB	296-6676
Photographer	Bob Keller, KB6OHO	725-1034
Good & Welfare	Ed Rawlinson, WD6CHD	264-2988

**COMMITTEES**

Repeater	Keith Butts, KN6K	248-3849
Youth Group	George Brady, AB6OZ	729-9012

**SCCARA REPEATERS**

SCCARA owns and operates two repeaters under the call W6UU:

2 meter:	146.385 +	PL 114.8 (none for basic use)
70 cm:	442.425 +	PL 107.2

Phone patch capability is available with a small subscription fee. The two meter repeater is located in the Mt. Hamilton foothills, Alum Rock area. The 70 cm repeater is located at the Alexian Brothers Hospital, North of 280 and 101.

**SCCARA NETS**

On our two meter repeater: Mondays at 7:30 PM, (not the second Monday--it's our meeting night). Net control: Joe WA6DXP.

On ten meters, 28.385 MHz USB, Thursdays at 8:00 PM. Net control: Wally KA6YMD.

Visitors welcome to join in on the SCCARA nets.

**IMPORTANT TELEPHONE NUMBERS**

SCCARA HOTLINE:	249-6909
ARRL CLASS HOTLINE:	971-1424
ARRL LICENSE (VEC) HOTLINE:	984-8353

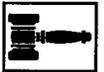
# July Speaker

The speaker for the July meeting will be our own Roy Metzger K6VIP. Roy will talk about the VEC program and how it has changed over the years. There was a time when there were no classes you could take and it was even hard to find a place to take the test after you learned on your own. Roy's talk should be very interesting, so please plan to attend.

Hugh KD6EFL

## Meeting Minutes

### General Meeting, June 12, 1995



Meeting called to order 7:45 PM, Mike K8ERL presiding. 32 in attendance.

Self introductions.

Brad K6WR went over the ARRL June up date. Terry KC6SOC talked about his 2.4 GHz repeater. The ARRL annual report is out. The HBO microwave transmitter is off the air (there is an ATV repeater near there). Rod Stafford is now the acting ARRL president. FCC 610-V forms are not out yet.

This is our Field Day meeting: Don KO6HH and Stan WA6VJY co-chair. Frank Glass K6RQ discussed contest operating techniques. CW and phone stations should coordinate to minimize interference. The best operators should go first to show beginners the finer points. Standard phonetics are preferred. Be reasonably aggressive. Don't get hung up on discussions.

8:42 recess. 8:59 resume

Wally KA6YMD: Must have Field Day sign-ups in hand by June 21 at the latest.

Set-up crew going up Friday will meet at Carl's corner of Almaden & Branham 12:30 PM for lunch before heading up to Mt. Madonna.

The extension cord shortage is solved. Still need someone to attend the visitor table. The phone, VHF, and packet stations will set up at the West end of the camp area; CW and Novice at the East end. Imre KD6MZM--packet station. AC6FU will help transport stuff from the locker.

Lou WA6QYS: People who helped with the Flea Market should see me for parking reimbursement. SVECS will host the August Flea Market.

Raffle

Gary WB6YRU: computer logging program demo for Field Day.

9:50 PM adjourned

---

## Board Meeting, June 26, 1995



Meeting called to order at 7:23 PM, Mike K8ERL presiding. Attendance: Mike K8ERL, Hugh KD6EFL, Don KO6HH, Don KK6MX, Don K6PBQ, Gary WB6YRU, and Rex N6BUO.

Repeater: The license copy requirement for repeater codes was discussed. No decision will be made until Stan WA6VJY can be consulted.

7:30 checked in to the 2 meter net. 7:35 resume

Youth Group AB6OZ: Timothy KE6MEA and Sarah KE6MPP operated the Novice station at Field Day most of the time. There will be a General Class license class for people 17 and under at my house starting 2nd week in July.

Field Day, KO6HH: Special thanks to Barbara KD6QEI and Wally KA6YMD for taking care of the food; and to Jack AC6FU and Gary WB6YRU for transporting club equipment and station equipment/setup. The club needs tables (6 foot), extension cords (at least 100 footers or more at 10 gauge), computers, a 5 gal. gas can, dipole antennas, rope for dipoles, 10 meter trap... a list will be made up and a motion made to purchase later. The club's two (old) existing computers need repair or replacement. Interference between stations (at full power) was a problem. Despite a thin turn-out and hot weather, it seemed to go well.

8:00 Radio Room: Scott showed us the radio room. It's nearly ready, but there are some politics yet to be worked out. Most of the furniture in the radio was donated, that's part of why it took so long to get put in.

Flea Market: We made \$1812.95 net (1320 from the gate, 492.95 from food).

Pres. K8ERL: I have stopped working on new meeting place. KK6MX will ask the United Way for information possibly leading to a better deal.

VP KD6EFL: July meeting - Roy K6VIP will talk about VEC program. August meeting is still up in the air.

Sec. WB6YRU: There are now 141 dues-paying members. There are still a few people who ordered auto-patch but haven't sent a copy of their license, we don't have a copy already, their call isn't in the Callbook or it indicates the call is expiring or did expire. I recommend we send a refund to those individuals. Motion made to approve recommendation; passed unanimously.

Treas. N6BUO: The general account is at \$13,718.08 and the repeater fund is at \$5,070.13, for a total of \$18788.21. We still need to check the receipts for Field Day food, but it looks like we are running a deficit there (\$350 out, \$200 in). The coffee fund is running well in the black. The raffle lost money in April and June, but made money otherwise.

KK6MX: we could solicit donations for the raffle instead of buying everything. (If nobody wants it, the donator must take it back--no "junk".) Also, we could have a swap meet on the SCCARA nets. K8ERL will mention this to Joe WA6DXP.

Editor WB6YRU: Doc W6ZRJ recommended dropping a few from the mailing list. I suggest we first send them a card asking if they wish to continue receiving the SCCARA-GRAM. KO6HH: motion to approve; passed unanimously. KK6MX: motion: as a thank you to speakers, put them on the mailing list for the SCCARA-GRAM for at least six months, up to a year (depending on bookkeeping). Passed unanimously.

### Old Business:

WB6YRU: Re: Mt Madonna camp site. It turns out that there is no provision for groups to reserve a site and just have their members show up (no individual fees). When we reserve the site, we pay up-front for a certain number of vehicles. Any extra vehicles are supposed to pay the usual over-night fee. Vehicles coming up for the day are totally separate--they are supposed to pay the "day use" fee. The ranger evidently has a lot of discretion. Deals can be made with the ranger.

### New Business:

KO6HH: Dan Dietz WM6M wants to resign as director. We will have to elect a replacement at the next general meeting to finish Dan's term (ending this year).

KK6MX: Motion to include the club's ARRL Special Service Club status in the newsletter. Passed unanimously. Editor pointed out that a motion wasn't necessary, he would have done it anyway.

9:35 adjourned.

Gary, WB6YRU, Secretary

# Secretary Says

## Field Day notes

The weather during Field Day this year was very warm, but we had a good time anyway. It was a little disappointing to see such a low turnout for a club of this size. Despite that, the code, phone, and novice stations were running almost the whole time! Very good job, gang!

During one contact at the phone station, the call sign WA6BGS was heard. They used an unusual, but very amusing set of phonetics: *We Ate Six Big Green Spiders*. Most folks are happy to think of funny phonetics for just the suffix, but these guys had this memorable one for the whole darn call! Hmmm, let's see... W 6 U W... Any ideas? ☺

The park ranger drove up Saturday afternoon. I pulled out our reservation paperwork and prepared to count vehicles; but to my surprise, he only wanted to know if we had a two-meter station running. It turned out he was an amateur too and wanted to make a few Field Day contacts. He needed to know what his category should be--I gladly filled him in. A half hour later, we had another two-meter contact under our belt!

It became clear during Field Day that the club needs to acquire a few more things, the small stuff will just be purchased. We could really use a couple of IBM PC type computers, lap-tops would be best (LCD screens would be fine). They don't have to be the latest or greatest--a 286 PC would be most welcome. It sure would be great if someone has one they'd like to donate.

The club has two old computers in need of repair. At this point, it seems one has a bad video card and the other (286) has a bad mother-board. If you have either one of these items laying around collecting dust, please let me know. So, if you know of someone upgrading their computer system, please keep SCCARA in mind.

Gary WB6YRU, Secretary

---

## Novice Station

This year was our first Field Day experience. We participated with SCCARA and boy was it FUN! At first we were very hesitant and could barely copy 5 wpm. After 24 hours of Field Day experience, we were copying 8-10 wpm. Timothy said, "I'm sure glad I practiced CW the week before. I felt much more confident in myself."

As we sat down in front of the club's Yaesu 757 at the Novice station with a multi-band vertical antenna (provided by Don, KO6HH) we were disappointed to learn that 10 meters was probably not going to be open. We really wanted to work 10 meter phone. But, working CW was all that was left for the Novice station.

"When Field Day started, I was the first one to

operate the Novice station. I was reluctant to begin using CW on 40 meters," said Timothy.

The Novice station had three operators: Timothy, KE6MEA; Sarah, KE6MPP; and Eric, KC6SPV. All together the Novice station made 40 contacts. All but two contacts were on 40 meters. The other two were on 80 meters. All of our contacts were made using CW only. We were pretty proud about that.

Once we started going, it got much easier and became more fun. "None of us were really confident until Timothy made the first contact," said Sarah. "Once we started, we were having so much fun that we didn't want to take a rest. Night time came and we just kept on going. At 2:10 AM we finally decided to take a break. We slept through the alarm at 3:15 and woke up at 6:10 AM. Eric gave up waiting for us to relieve him after our 'short break' and the Novice station sat empty. So we started up the Novice station and pounced on a station calling CQ."

Field Day was great fun, but possibly the best part was the water fight on Sunday afternoon after the contest. Timothy and his sister Carolyn brought their super-soakers. Eric improvised by filling a gallon-sized bottle with water. Sarah bravely defended herself with a pint-sized spray bottle. Carl took advantage of an unattended super-soaker and sprayed all the kids. By the end, everyone was drenched head to toe!

Field Day was fun and a great learning experience. Neither one of us can wait to participate in Field Day '96!

Timothy, KE6MEA, age 11

---

## Field Day 1995

This year, there was nothing quite the same up on Mount Madonna, the site of this year's Field Day, except that I, Barbara Britten, KD6QEI and Wally Britten, KA6YMD, were doing the cooking again. This was our third year. I, Barbara, coordinated the food, and Wally did the barbecuing on Saturday afternoon. As usual, I had agreed to make C.D.F. (California Department of Forestry) Chili for the Friday night potluck for those who came up to help set up the radios and antennas.

The Field Day Food Chairman's job entails pre-pricing of food to estimate the costs in order to ask for an advancement of funds to buy the food. Then, there is the gathering of coolers, stuff from the storage locker, ordering steaks and chicken, buying the food, packing things in the van, getting ice, then picking up the meat. It takes time, but it goes better with proper planning, and lists, and lists, and lists.

This year the meat had to be ordered from a different butcher, as Ernie's was not available. I chose one at random from the yellow pages, and prayed that everything would be alright. They had agreed to season and tenderize the meat and chicken for me. The price quote was \$1.00

more per pound than Ernie's. No choice, so I went with my intuition. 25 steaks, and 6 chickens (1/4 chicken per person)

Thursday, buying day. Now the crunch and rush begins. Costco in the morning, home for lunch, out for my paycheck, the bank, and more food shopping. All this running and walking around was putting added stress and pain on an already painful right knee. I was glad I didn't have to work, but sorry for losing the money for the shift. But, everything will work out right in the end. I have purchased no sodas this time. The weather is supposed to be hot, so the drinks of the day are going to be lemonade and iced tea. I hoped I had purchased enough. I had also made a double batch of C.D.F. Chili, and put the second batch in containers to heat as necessary.

Friday, June 23. The day was spent packing the van, picking up ice and the meat. The weather started to climb. By the time we left San Jose, it was 101 degrees. We were hoping things would be cooler on Mount Madonna. On the way up the mountain, the temperature dropped 10 degrees. Things went pretty normal once we reached the campsite. The canopies were set up for the various stations, then the antennas, and the coolers and drinks were put close at hand for everyone. I was concerned about the heat and the related medical problems that could occur. (The nurse in me is never really off duty.) I got dinner going about 7:00 P.M. We had C.D.F. Chili, hot-dogs in buns, 5 bean salad, and brownies. Afterwards, a little more organizing, then off the bed. We did not sleep well, as the heat made it impossible.

Saturday, June 24, Breakfast was compliments of Don Village and Lou Steirer. Pancakes, sausage and coffee. This time the syrup landed on the pancakes instead of all over the trunk of Lou's car.

As soon as breakfast was done, I got dinner coordinated. Things went just as planned, until I realized the salad was home in the refrigerator. A friend agreed to go down the hill to the local super market and get some. It only postponed lunch by half an hour. The feed back from the people who ate at the barbecue was positive. I got things organized and cleaned up to do the dishes, but was too tired to do them. I went in and took a nap in the air conditioned van. I woke up about 6:30 P.M., and went over to get the results of the contest so far.

The youth had manned the Novice code station. They had broken last years figures early. Other stations were doing quite well, too. I got a chance to talk to other non hams who were having a bit of supper. The rest of the Chili was put in the coolers to keep overnight, for anyone who got hungry during the night. I went back to the food campsite to secure things for the night. The critters that live up there have good noses and know where the food is located. Wally and I did some work at the Voice station for about 2 hours, then headed back to the van. We went to do a little stargazing before turning in. When we got back to the food campsite, we sat on the tables enjoying the coolness for a few minutes. While we were sitting there, we heard this rustling noise. A check with the flashlights revealed a wild pig, a boar. He walked all around us looking for food. After about half an hour, he left. The only thing he found to eat

were some spoiled strawberries. We went to bed after the boar left the campsite.

The next morning we heard about how the boar came back and got into the chest with the C.D.F. Chili. He ate one container of Chili. The only container he got into was the tupperware one. The other two plastic containers with twist on lids proved more of a challenge. In the process of getting the Chili container out of the cooler, some of it spilled all over the ice, the cans of soda, the other hot dogs (which he didn't eat). Maybe he thought it was a distant relative, or something. What a mess! The story going around camp was, "C.D.F. Chili enjoyed by all 'hams', even the 'boaring' ones". We all had a good laugh about it. I had help from a lot of the campers to get things cleaned up as best as possible before we broke camp. Thanks to all who helped. It was much appreciated.

After Field Day was over, and everyone had gone back home, the routine became normal. The left over dishes were done, the coolers were cleaned and returned to their owners, and the camping gear and sodas returned to the storage locker until next time. Then the totals were tallied, and the rest of the money given back to the treasurer. This time, I'm keeping a copy of the file for my records, so I can get started with a little more confidence next year, if I decide to take on the task again.

The "CDF chili" recipe will be run next month.

73, Barbara KD6QEI

---

## Youth Group

### General License Class

SCCARA starts a General license class on Tuesday, July 25. With a General amateur radio license, you'll have access to all radio bands. HF privileges provide almost unlimited world-wide communications. To obtain a General amateur radio license, you must pass the Novice, Tech., and General written examinations and pass the 13 words-per-minute telegraphy test.

The instruction class will cover the General license material. Some code will be covered during the class, but you should work on the code for at least 15 minutes every day. So, now is a good time to break out the morse code tapes or computer code program and increase your CW copy speed. Class starts soon, so if you're 17 years old or younger, contact George Brady, AB6OZ, at (408) 729-9012 for class information.

George, AB6OZ

---

# Need Help?

Amateurs have a long history of helping each other. An experienced amateur who helps another is traditionally called an "Elmer." If you have a question or problem, you are encouraged to ask one of SCCARA's Elmers. Below is a list of topics including who to contact for each.

If you consider yourself to be reasonably competent in at least one area of amateur radio and would be willing help others, please ask the club secretary for an Elmer survey form and fill it out.

Antennas, feed-lines, tuners:

WB6EMR, AC6FU, K6PBQ, K6RQ, WB6YRU

Lightning protection, grounding: WB6YRU

Station set-up, equipment: AC6FU, K6PBQ, K6RQ

TVI/RFI: WB6YRU

Homebrew projects, construction: AC6FU, WB6YRU, KD6FJI

Computers: KB6NP; IBM PC: WN6U, WB6YRU

Packet Network (BBS, forwarding): WB6YRU

Other digital modes (AMTOR, RTTY): WN6U

Code operating and installations:

WB6EMR, AC6FU, K6PBQ, K6RQ

DX (long distance/propagation): WB6MER, K6RQ

Emergency operating/preparedness: WA6QYS

FM (VHF/UHF, repeaters): WA6VJY

HF operating techniques (SSB, CW):

WB6EMR, AC6FU, K6PBQ, K6RQ

Mobile operating: WN6U, K6RQ

QRP (HF low power, all modes): WN6U

TEN-TEN (10 M only): AC6FU

Classes/license upgrading: AC6FU, W6ACW

Legal/FCC rules: WB6YRU

SCCARA (club inner workings):

KO6HH, K6PBQ, WA6VJY, WB6YRU, WA6QYS

Math applications: AC6FU

Children's Discovery Museum, volunteer operator:  
K6PBQ

W6ACW, Ed Hajny, (408) 739-6105

WB6EMR, James D. Armstrong, Jr.,  
day: (408) 995-0621, evening & msg: (408) 945-1202

KD6FJI, Lloyd DeVaughns,  
day: (408) 299-8933, evening: (408) 225-6769  
packet: home BBS KB6MER

AC6FU, Jack L. Ruckman, (408) 379-4846

KO6HH, Don Hayden, (408) 867-4643  
packet: home BBS N0ARY

KB6NP, Jon Dutra, day & msg (408) 428-2058  
evening (408) 867-8654  
packet: home BBS N0ARY  
internet: jad@aol.com

K6PBQ, Don Village, (408) 263-2789

WA6QYS, Lou Steirer, (408) 241-7999  
packet: home BBS N0ARY

K6RQ, Frank Glass, (408) 356-1026

WN6U, Doug Eaton, (408) 377-3736  
packet: home BBS N0ARY  
internet: deaton1@1x.netcom.com

WA6VJY, Stan Getsla, day: (408) 738-2888 x5929,  
evening & msg: (408) 275-0735

WB6YRU, Gary Mitchell, msg (408) 265-2336  
also (408) 269-2924  
packet: home BBS N0ARY

---

## Introduction To Packet Radio

by  
**Larry Kenney, WB9LOZ**  
Part 2

In the first part of this series I told you, in general terms, what packet radio was all about. Now I'm going to tell you how to get on the air, make a QSO, and become familiar with your packet station. Whether you're new to packet, have been involved for just a short time, or are one of the "old timers", this series should help all of you. Even if you don't yet have equipment to get on the air, you should keep this series of articles handy for future use. I'll bet you'll be joining us soon!

The equipment that's needed to get on the air with packet is a transceiver, a computer or terminal, and a TNC - a terminal node controller - the little black box I talked about in part 1. Or, if you're using a computer, not just a terminal, you can use special software and a small packet modem instead of a TNC. You need a special modem, though, not one that's used to connect your computer to the telephone line. The tones used for packet are different than those used on the phone.

I highly recommend that you start with a 2 meter transceiver. There is packet activity on 220, 440 and HF, but 2 meters is where most of the action is and that's the best place to start.

When you buy a TNC or packet modem and take it out of the box, you'll find a cable supplied for connecting it to the radio, but you'll have to attach the appropriate mic and speaker jack connectors for the radio you're going to use. You'll have to furnish the cable that connects the TNC to

your computer or terminal. In most cases, the TNC or modem is connected to the standard RS-232 communications port of the computer. On a PC this port is called a serial or COM port. On other systems it may be referred to as a telecommunications port or telephone port. You can make up the cable that goes between the TNC and computer yourself, or you can purchase it at a local computer store. As an option, you may be able to purchase one or both of the needed cables from the manufacturer of your TNC with the appropriate connectors factory installed for your particular radio and computer. The operating manuals that are supplied with TNCs and modems have a good description of the cabling needed for the various computers. Please read the introduction and set up procedures for your particular TNC or packet modem very carefully. Most companies have supplied excellent manuals, and you shouldn't have any trouble figuring out your particular set up from the information supplied in the manual.

Once you have everything connected as described above, you've completed the hardware phase of the installation. Now you need to turn your attention to software. If you're using a TNC, you'll need a terminal or communications program for your computer. Any software used for a telephone modem, such as Procomm or the Windows Terminal program, will work well for packet. There are also many special programs that have been developed specifically for packet radio use, such as PC PACRATT, MFJCOM, PAKET, PacketGold, TPK, etc. If you're using the small modem instead of a TNC, you'll need to use the special packet software written for the modem, such as Baycom. Read the instructions carefully for setting up the program on your computer.

No matter what software you use, you'll have to specify the communications port you'll be using and set the baud rate (data rate) and data parameters for that port. (Note: There are two baud rates associated with your packet station: 1-the baud rate between your computer and TNC and 2-the baud rate of the packets on the air. Here I am discussing the first of these baud rates. The second will be discussed in part 3 of this series.) Refer to the manual or help information for the specific program you've chosen, to set the baud rate and data parameters. The baud rate of your computer must match the baud rate of your TNC. Some TNCs will automatically set their baud rate to match the computer. Other TNCs have software commands or switches for setting the baud rate. Again, you'll need to refer to your manual for specific instructions. When setting the data parameters, 8-N-1 is normally used: 8 data bits, no parity, 1 stop bit. But like the baud rate, the computer and TNC parameters must match.

Now I need to point out the various levels of communicating you can do from the keyboard. First, you can communicate with your computer for setting up your software program; second, you can communicate with the

TNC or packet software; and third, you can send data over the radio. It's very important that you know which level you're in when working packet. You need to know where your keystrokes are going! If you're not using a TNC, you will have to figure out the difference between software set up and software usage. This is explained in the program instructions.

Once you have your communications program or packet software up and running, you can move on to the next step. If you're using a TNC, you now need to set it up. First, turn it on. You should get a "greeting" or sign on message from the TNC on your screen showing the manufacturer's name, the software version, a date, etc. If you see a bunch of gibberish, such as &tf\$d.h#sxn, it means that the parameters of the TNC and computer don't agree and you'll have to make adjustments. If you don't see a "greeting" or the gibberish, check your cables and connections. Make sure that you have everything connected properly, that the right wires are on the right pins, and so on.

Next, do a "control C" (press the CNTL and the letter C simultaneously); this puts the TNC in COMMAND mode, the level where you communicate directly with the TNC from the keyboard. You should see "cmd:" on your screen. Enter: MYCALL - - - - with your call sign in place of the dashed lines (such as: MYCALL WB9LOZ) followed by a carriage return (CR). (The carriage return key is labeled "Enter" or "Return" on most keyboards.) All commands must be followed by a (CR). This sets into the TNC memory the call that you're going to use on the air. Now if you type MYCALL (CR), it should respond with your call sign. If it does, you've proven that the computer to TNC link is working fine. If you do not see anything on the screen when you type, blindly enter the following: ECHO ON (CR). If you see two of everything that you type, such as MMYCCAALLL, enter ECHO OFF (CR). Now enter the following commands: MONITOR ON (CR)  
MRPT ON (CR)

For those using packet software and a modem instead of a TNC, you should have already entered your call sign in the configuration file during the set up procedure. If you have not, refer to the software instructions for preparing the configuration file for your station. Also note that with this software, you don't enter Control C to go into command mode. You simply use the ESC (Escape) key prior to entering each command. You're now ready to go on the air! Turn on your radio, make sure the volume is turned up about a third of a turn (about the "10 or 11 o'clock" position) and make sure the squelch is set. It should be at the point where the background noise disappears, just as it would be set for a voice QSO. Tune the receiver to any odd numbered frequency between 144.91 and 145.09 or 145.61 and 145.79 MHz and set the rig for simplex operation. You might have to tune around for a frequency with activity in your area. Watch your

screen. You should soon be seeing the packets that are being sent over the air by other stations.

Let's look at what you might see. You should see something similar to this:

WB9LOZ > W6PW-3: The meeting will be held at 8:00 pm. This shows a packet being sent by WB9LOZ to W6PW-3. Watch for call signs with asterisks next to them in packets that look like this:

WB9LOZ > W6PW-3,W6PW-1\*: The meeting will be held at 8:00 pm.

The asterisk indicates that you're receiving the packet from W6PW-1, not the originating station, WB9LOZ. The packets are being digitally repeated, or digipeated, by W6PW-1. The station that's doing the digipeating is called a digipeater. You'll also note that some stations are using names or a series of letters rather than call signs. You might see something like SFW, BERKLY, or BLUE. These are packet stations set up to operate as nodes. The stations are usually located in higher locations, and they're installed to make connections to other stations easier. They often use a name or letters, called an alias, that identify their location. They send both their alias and call sign at 10 minute intervals to identify themselves and to be legal. (Both digipeaters and nodes will be discussed in detail in a later part of this series.)

You'll also notice that some call signs have a trailing number attached to them. On packet you can have up to 16 different stations on the air at the same time using the same call sign. That's where the numbers at the end of the call sign come into play. The calls W6PW, W6PW-1, W6PW-2, W6PW-3, W6PW-4 and W6PW-5 are all individual stations operating under the same station license. A call sign without a number is the same as -0. These numbers are called Secondary Station IDs or SSIDs, and are used to differentiate between the various stations. There should never be more than one station using the same call sign and SSID on the air at the same time.

Now that you're familiar with what you might see on packet, you're ready to make your first packet QSO! If you're using a TNC, make sure it's still in command mode. (Remember, it's Control-C.) Watch for a familiar call on the screen or note calls you see frequently. Be sure to note whether or not a digipeater is being used. When the station you want to contact is finished with his QSO, enter the command: C - - - - or C - - - - V - - - - (depending on whether or not a digipeater is needed) followed by (CR). Replace the dashed lines after the "C" with the call of the station you want to contact and the dashed lines after the "V" with the digipeater call, if needed. Don't forget the SSID if the call has one. The C means CONNECT and the V means VIA.

C WB9LOZ V W6PW-1  
means connect to WB9LOZ via W6PW-1. If you're successful, you should soon see:  
\*\*\* CONNECTED TO (call sign)

on your screen and your first packet QSO is underway!

You have now entered the third level of communications, called CONVERSE mode, and this is where you communicate from the keyboard to the radio. Anything you type on the keyboard will be transmitted over the air as a packet every time you hit a (CR) and it will appear on the other station's screen. Anything sent by the other station will be transmitted to you and will appear on your screen.

When you're finished with your QSO, be sure to do a CONTROL C to get back into command mode on your TNC, or hit the ESC key if using the packet software, then enter ·D to disconnect from the other station. You'll see "DISCONNECTED" on the screen. If you get connected to a station but you don't receive a response, you might have reached an unattended station or a node. Don't despair, disconnect and try someone else.

You're on the way now to lots of packet fun and adventure! If you are still having problems at this point, contact a friend that has some experience on packet and ask for help. The initial set up of the computer, TNC, software and radio is probably the biggest stumbling block in packet. Any experienced packet operator will be happy to help you get through this process to get you on the air.

---

## Newsletter Notes

In the last issue, I mentioned that I can copy the full document *Introduction to Packet Radio* on an IBM disk if someone wants it. El Wirt, K6ZYY has informed me that he has the full text available on disk for MAC users and would be happy to do the same. So, whether you have a MAC or PC, if you want this fine booklet on disk, just bring a blank formatted disk to any meeting and one of us will be happy to help you out.

Have you ever considered getting a little more involved in helping out in SCCARA? I could use some help putting the newsletter together. Harold, KK6ZE is no longer a member of the club, but has continued to help out anyway. However, it seems he has finally gone his separate way and we need someone to fill his spot. A great big THANK YOU and 73 to Harold!

The job is not difficult, just folding newsletters and affixing labels, then drop them off at Tony's (K6MOB) place. It only takes a couple of hours (including transportation), one Sunday afternoon per month. If you would like to help, but this is a bad time, we can work out something. Let me know.

73, Gary WB6YRU, editor

# ARRL Pacific Division Update

June 1995

## Vanity "Preferred" Call Signs

The "sequentially issued" club call signs part of the "Vanity" Call Signs Program is underway with club call signs being received in all call sign areas. The club call sign procedure began with the issuance of sequential calls from the Group D call sign blocks (KE6Sxx in CA).

No starting date has been announced by the FCC thus far for the remainder of the program. However, the long-awaited form 610-V is very nearly ready; it was finally approved by the Office of Management and Budget on May 2, and copies should start going out within the next few weeks.

There is a new twist to the program. It has now been determined that a form 1070-V, will have to be filed with each 610-V as a transmittal for the \$70.00 fee. As yet many of the details on where to send what are unknown.

There are two routes to follow to obtain the necessary 610-V and 1070-V forms: direct from the FCC or via ARRL.

In order to obtain forms from the FCC, call 1-800-418-3676 and follow instructions. This number, which is open 24 hours per day, hooks you into an automated form ordering system. After making your way through the usual maze of control numbers, input from your touch-tone telephone, you'll be given the opportunity to leave a recorded request. Some who have tried this approach have received a letter saying that the forms will be available July 1, but it is not clear if the request at this time will be automatically honored.

If you wish to obtain your forms from ARRL/VEC, send a self-addressed, stamped envelope (SASE) to ARRL HQ/VEC, 225 Main St Newington CT 06111, and ask for a 610-V. A 1070-V will automatically be included with each 610-V request. The ARRL/VEC will honor all requests in this manner.

There is to be a new form 610-B. In the meantime, to apply for a club call sign you can use the existing Form 610-B dated March 1992 and write "NEW" in the call sign box at the top of the form (item #1). Form 610-B can be obtained from the ARRL/VEC for an SASE. Mail the completed club call sign application form 610-B (with a copy of the trustee's license) to FCC, 1270 Fairfield Rd Gettysburg PA 17325-7245.

In order to apply for a "vanity call sign" for a club, you must already have a club call sign or have obtained one under this new program. A club trustee would then apply for a vanity call based on the "gate" for his or her license class.

A Club Call Sign Application Fact Sheet by FCC has

been released to fully define the process. The ARRL-VEC also has an information sheet available to answer questions if you will send an SASE to ARRL-VEC 225 Main St Newington CT 06111-1494.

On the matter of what call signs from what call areas are to be available in gates 2 through 4, the ARRL and several individual hams have filed Petitions for Reconsideration of paragraph 10 of this Docket. The petitions are to insure the availability of call signs from ONLY the call sign area of residence as proposed by ARRL and QCWA originally and currently rejected by FCC. The FCC plan currently makes any available call sign in any call sign area -- KH6, KH0, KL7, KV4, W6, W7, et al -- available to any applicant. There is no date known by when the FCC will make a decision; however, this aspect of the call sign assignment will not be applicable until later in "gate 2". See May 1995 QST, page 95 for more details.

~~The cost for any "vanity call sign" will be \$70 for the ten year license based on the current statutes.~~

**News Flash!** ARRL HQ reported today (Tuesday, June 20) that a Report and Order in MD Docket No. 95-3 has been released. The fee for Amateur Vanity Call Signs, previously \$70, has been reduced to \$30 per license for the ten year license term. The new fee (along with other fees affecting other services) takes effect 90 days after publication in the Federal Register, which means not before late September.

Some additional thoughts for those of you concerned with recovering Silent Key call signs of close relatives, please be ready. Be sure that you or some close relative is licensed at some level.

## George Wilson, W4OYI, is recovering

As previously reported, on Feb. 11, George Wilson, W4OYI, suffered a stroke in Washington, DC, while on business for ARRL. George is now in rehabilitation facility near Evansville, IN. All information indicates that he is recovering well, but it appears that the recovery period will be a long time. Please hold good thoughts for George and his family. Messages can be sent to George's address at 1849 Griffith Ave Owensboro KY 42301. Get well, George!

## Proposal to Do Away with the FCC

Many of you are probably concerned about the new Telecommunications Act passed June 15 by the Senate and the now separate "Think Tank" proposal to eliminate the FCC and allocate the entire RF spectrum on a "property rights" basis. These stories are headline news as this is being written.

The ARRL Washington Team continues to monitor these activities very closely. There were many last minute amendments added to the Senate bill so that even the legislators apparently are not really sure of the details. It

appears that this bill does not affect the Amateur Radio Service directly, but there may yet be surprises. The two House committee versions of this bill are considerably different from the Senate version and each other. This summer, the House must first reconcile its two versions and then work out the differences with the Senate. Also this summer, the "Think Tank" proposal to eliminate the FCC could well influence the debate on the expected FCC funding bill.

The mood in Congress seems to be to enact some sort of telecommunications reform, but just what is unclear so far. Stay tuned! The ARRL Washington Team is active on our behalf!

### **13 cm Band**

On Feb. 7 it was announced by the FCC that the Amateur Service not only retained our 2390-2400 MHz and 2402-2417 MHz spectrum, but we were upgraded from Secondary Allocation to Primary Allocation! There was NO reallocation of 2300-2310 MHz as it was not involved specifically in this matter although some commenters wanted to pair up this segment with 2390-2400 MHz. The battle over 2300-2310 MHz will appear again very soon in 1995 to meet NTIA's schedule of transfer in Aug. 1995. Be prepared again!

May 1995 QST on page 94 contains a "2400 MHz Honor Roll" honoring those organizations and individuals who contributed to this win.

The Pacific Division celebrated this win by installing and operating the first known 13 cm repeater -- see "S-Band by the Bay" pictures in "Up Front in QST" on pages 12-13 and the corresponding article in the FM Column on page 106 in the July QST. Great work by a group of pioneers!

### **We Get New Spectrum: 219-220 MHz**

On Mar. 17, the FCC issued a Report and Order on ET Docket 93-40 awarding operating privileges in the 219-220 MHz band effective April 26, 1995. The Amateur Service has been awarded, on a secondary basis, permission to use the band for a point to point fixed digital message forwarding service. As we will be sharing this spectrum with other services, ARRL, acting as a "national contact point" for "local amateur coordinators," will provide information on known current licensees in these other services. A few applications have been received -- the first two were from the Pacific Division. Those who are interested in using the new band should contact ARRL HQ for an information sheet and application form.

### **FCC Amends HF Digital Rules**

The FCC has announced rule changes covering HF Digital operations. The new rules will become effective July 1, 1995. Subject to a bandwidth limitation of 500 Hz, automatic control will be permitted when connected to

another station that is under manual control, or when transmitting in certain frequency segments designated for automatic control operations. The frequency segments available for automatic control are:

3.620 - 3.635 MHz  
7.100 - 7.105 MHz  
10.140 - 10.150 MHz  
14.095 - 14.0995, 14.1005 - 14.112 MHz  
18.105 - 18.110 MHz  
21.090 - 21.100 MHz  
24.925 - 24.930 MHz  
28.120 - 28.189 MHz  
50 MHz and up

See July QST page 83 for full details.

### **Latest Pacific Division Appointments**

It is my pleasure to announce that Nubar (Nory) Tashjian, K6K VX, has been appointed as a Volunteer Counsel in Oakland CA. Thanks, Nory, for joining the team!

### **New Service to New Licensees**

Starting in June, the Pacific Division part of the ARRL National Traffic System began delivering "welcome to Amateur Radio," "join your local radio club," and "join the ARRL" messages to all new licensees in the Division. This effort is being led by Jim McCauley, AB6EU, Section Traffic Manager of the San Francisco Section, with the assistance of a group of dedicated NTS hams. Thanks for the effort!

### **Antenna Ordinances**

Ken McTaggart, N6KM, Volunteer Counsel, Gerhard Straub, WB6ESF, Volunteer Consulting Engineer, and Lee Dibble, KE6EAQ, Volunteer Counsel, continue to lead the charge on the potentially very explosive proposed Sonoma County antenna ordinance. The latest information indicates that Sonoma County may not adopt an "RF intensity at the property boundary line measurement" criteria. If such a proposed ordinance involving RF intensity measurements were to pass, it would be the first such in the US. Keep up the good work, team, and thanks to all others working locally on this challenge!

The antenna ordinance effort in Fresno County will likely come to a head in June. The Fresno ARC and other groups in the county have put forth a major effort to have a more "reasonably accommodating" ordinance passed by the Fresno County Council. Good luck!

### **Scholarships and Awards**

I am pleased to announce that Benjie Chen, KE6BCU, of Sunnyvale CA, has been awarded The ARRL Scholarship to Honor Barry Goldwater, K7UGA, by the

ARRL Foundation Scholarship Committee of the ARRL Foundation, Inc. Benjie will be an entering freshman at MIT this fall. Congratulations!

There are many scholarships and awards covering a wide range of situations available to licensed Amateurs. The ARRL Foundation, The Dayton Amateur Radio Association, The Foundation for Amateur Radio, to name only a few, will be announcing their dates for applications for their 1995/6 scholarships. Watch QST and other amateur radio publications for details.

### Guest Editor Last Month

Jim Maxwell, W6CF, Vice Director, completed the writing and editing of the June issue while I was in Europe. Thanks, Jim.

Also my thanks to the loyal Monday lunch group in Los Gatos who do the final assembly and mailing each month. Thanks, gang!

### Coming Events

- Livermore Swap Meet - 1st Sunday of each month at Las Positas College in Livermore, CA, 7 AM to Noon, all year. Talk in 147.045 from the West, 145.35 from the East. Contact Noel Anklam, KC6QZK, (510) 447-3857 eves.
- Foothill Flea Market - 2<sup>nd</sup> Saturday of each month from March to September at Foothill College, Los Altos CA.
- Reno Hamfest at Reno Stead Airport Facility north of Reno, Aug. 12, 1995. Contact Sierra Nevada ARS Bob Davis, KG7IY, (702) 856-2826.
- SCRA Hamfest/Swapmeet, Sept. 16, 1995, in Santa Rosa CA. Contact Rick Reiner, K6ZWB, (707) 575-4455.
- 2<sup>nd</sup> National Hamfest, Oct. 6-8, 1995, at Costerisan Lake in Bakersfield, CA. Contact the Kern Co. Central Valley ARC at PO Box 743, Bakersfield CA 93302
- Pacificon '95 at Concord, CA, Oct. 20-22, 1995. Contact Richard Schultze, AA6DL, at (510) 932-6125 on the Pacificon '95 Hotline.

Brad Wyatt, K6WR  
Director, ARRL Pacific Division

18400 Overlook Rd. #5  
Los Gatos CA 95030-5850  
(408) 395-2501



Packet: K6WR @ N0ARY.#NOCAL.CA.USA.NOAM  
Internet: bwyatt@arrl.org

---

## Packet Pieces

Downloaded from the packet network:

=====  
Date: 19 Jun 95 17:07  
From: KC7AQB@KG7LX  
To: PUZZLE@ALLUS  
Subject: Another tricky puzzle  
-----

These two strangers walk into a bar. The bartender know NOTHING about them, except what they look like. One of them puts 50 cents on the table, and asks "How much for a shot of beer?" The bartender replies, "50 cents for Coors, 45 for Bud." (These prices are fictional, OK?) The man says "Bud," and is given a shot of Bud, with a nickel change. The next man comes up to the bar, placing 50 cents on the counter. "I want a shot of beer, too," he says.

Then, without asking anything, the bartender gives him a shot of Coors. How did the bartender know to give the second man Coors, when he might of wanted Bud? Remember, these two men are COMPLETE strangers to the bartender.

KC7AQB@KG7LX.OR.USA.NOAM

=====  
Date: 22 Jun 95 20:29  
From: KC7AQB@KG7LX  
To: PUZZLE@ALLUS  
Subject: Yet another puzzle  
-----

Five friends, Andrew, Bernard, Claude, Donald and Eugene, each have a son and a daughter. Their families are so close that each has married his daughter to the son of one of his friends, and as a result the daughter-in-law of the father of Andrew's son-in-law is the sister-in-law of Bernard's son, and the son-in-law of the father of Claude's daughter-in-law is the brother-in-law of Donald's daughter. But although the daughter-in-law of the father of Bernard's daughter-in-law has the same mother-in-law as the son-in-law of the father of Donald's son-in-law, the situation is simplified by the fact that no daughter-in-law is the sister-in-law of the daughter of her father-in-law. Who married Eugene's daughter?

Can you solve this one? Not many people can, but please give it a try. I will post the answer in a month or so. Send your answer to: KC7AQB@KG7LX.OR.USA.NOAM

Have fun! Happy puzzling!

=====  
Keep smiling! ☺ 73, Gary WB6YRU  
-----

# S.C.C.A.R.A. Membership Form for 1995

(Fill in name and address if there is no mailing label below; make corrections if the label is incorrect)

Name: \_\_\_\_\_ Call: \_\_\_\_\_ Class: E A G T+ T N

Address: \_\_\_\_\_ Licensed since (yr): \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone: ( ) \_\_\_\_\_ A.R.R.L. Member: Yes No

For family memberships (at the same address), please list other name(s) and call(s):

Annual membership dues are payable at the first of the year and expire the following December 31. New members joining on or after July 1, pay half the annual membership dues.

Annual Membership dues: Individual \$15 Family \$20 Student (under 18) \$5 .....

Send the SCCARA-GRAM by first class mail for \$7.50 extra .....

I want \_\_\_\_\_ SCCARA badges @ \$3.00 ea. Badge name & call: .....

Please send the repeater Auto-Dial codes (no charge, circle):..... Yes

Please send the repeater Auto-Patch codes \$10.00 (\$15 if family membership).....

A COPY OF YOUR LICENSE IS REQUIRED FOR ALL REPEATER CODES

(Auto-Patch includes the Auto-Dial codes) TOTAL: \_\_\_\_\_

Give this completed form (or copy) with payment to the Secretary or Treasurer at any meeting or mail to the return address below:

== PLEASE DO NOT TEAR ==

SANTA CLARA COUNTY  
AMATEUR RADIO ASSOCIATION

PO BOX 6  
San Jose CA 95103-0006

NONPROFIT ORG. US POSTAGE PAID SAN JOSE CA PERMIT NO 3318
---

Affiliate of the American Radio Relay League

FORWARD & ADDRESS CORRECTION

TIME DATED BULLETIN