



SCCARA-GRAM



W6UUVOLUME 6

NUMBER 3 ...W6UW

SANTA CLARA COUNTY AMATEUR RADIO ASSOCIATION

****ORGANIZED IN 1921

SAN JOSE, CALIFORNIA****



OUR PREZ SEZ

Classes for novice and technician/general have gotten off to a roaring start, spurred perhaps by the new novice enhancement announced by FCC. Next year 40 and 80 meters??? Kidding aside, if the enhancement works out as planned - and there are no problems, something like that may come about ... someday.

SCCARA's thanks to Bill Stevens, W6ZM for donation of a receiver and transmitter for training or for sale. Also we have just received a Drake receiver from silent key Carl Jackson, K6SJ, donated by his widow. Did my truck ever ride good going home with that equipment in back! BUT, if any other SCCARA members have an unused rig sitting around gathering dust, how about getting it into circulation? Why wait until you are a silent key? Get that pat on the back NOW, while you can appreciate it!

I join treasurer, Dan Dietz, WM6M in urging you to sign up for ARRL membership through SCCARA. We desperately need new members to continue to qualify for ARRL affiliation (51%), and it would be nice to win a new club transceiver!

It will be interesting to see if the newly sighted: "Super-Nova" will bring the same conditions we associate with sunspot activity and DX. Keep your 10-meters tuned! When I dropped in on Bill Stevens, W6ZM yesterday he was talking to Equatorial Africa, and you should have heard the pileup.

Have you met new member Les Stephenson, KB6PIV? He has gone from novice to general and is working on

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on his advanced. Claims to have a system. CONGRATS!

NEXT BOARD MEETING
March 19th, 1930 hours
San Jose Hospital Annex,
75 N. 16th St., Suite B

See all of you at the March 9th meeting. V. P. Allen promises another bangup program!

73 de Ed, WE6CHD

!!!1987 DUES ARE DUE!!!

ACCORDING TO THE BYLAWS THE SECRETARY WILL BE OBLIGED TO DROP YOUR NAME FROM THE CLUB ROSTER AND DISCONTINUE YOUR MEMBERSHIP. IF YOU VALUE YOUR MEMBERSHIP PLEASE SUBMIT YOUR 1987 DUES. THE REST OF THE MEMBERSHIP VALUES YOU AS A MEMBER.

SCCARA 1987 DUES PAYMENT COUPON

Remittance:...	\$.
Individual (\$15)...	Family (\$20)...
Name.....	
Addr.....	
City.....	ZIP.....
Call.....	Class.....
	ARRL. Yes/No
Telephone.(.....)

*****MAIL CHECK TO:*****

DAN DIETZ, WM6M
6220 Hopi Drive,
San Jose, 95123

MARCH 1987 ISSUE



FROM YOUR TREASURER

A SCCARA welcome to new members: Trien Dinh; Rich Bradley, KB6PYK; Noel Lozada, N6JFO; Bill Ashby; Lowell Ashby; Phil Barker, KB6NZV; Jeanne Davis; Stewart Stone; Mark Shapiro; John Thomas and Steve Goelz.



UPGRADES, ETC.: Rich Bradley, KB6PYK, Tech; Phil Barker, KB6NZV, Tech; Joe Eykholt, Tech; Harvey Sefried, N6OHA, Tech; Fred Wallin, KI6HD, Adv; Les Stephenson, KB6PIV, Gen; and Irvin Sullivan, KB6PYP, Tech. Let me know if I missed you.

DUES: Over 50% of our members have renewed membership. How about you? If you have not paid by March 31st, you will miss the club roster, the SCCARA-GRAM, be dropped from membership, and lose the benefit of the things that make the club fun. ACT NOW BY USING THE FORM ON PAGE 1.

ARRL: QST says that SCCARA finished third last year in the 1986 "Club Challenge of the 80's" with 18 new ARRL signups. The West Coast ARC (the winner) had 69 signups and won a new transceiver! Let's see, if we have over 260 members and just over half are ARRL members now ... Wouldn't a nice new rig be a great addition to our club? If you've not been an ARRL member within the last 2 years and wish to join, use the form provided below. Note that reduced youth, family, life and blind memberships will not count for this contest.

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If you are already a member, pass the form on to a friend. Mail your check and the form to ARRL direct. Regular membership renewals should still be processed through SCCARA.

73 de Dan, WM6M

Editor's note: Dan's Repeater report is listed on page 3.

TO THOSE INTERESTED IN CONTESTING THE NORTHERN CALIFORNIA CONTEST CLUB

IF INTERESTED CONTACT: Duane Aussheeman, W6REC 100 Sanders Road Fort Bidwell, CA 96112 (209) 368 1121

or use NCCC repeater 147.240 +600 Repeater call: W6RGG

The NCC sponsors the California QSO party, and contesting is an excellent undertaking for those interested in honing their operating skills.

*****PUBLIC SERVICE MESSAGE*****

LARRY WE MISS YOU TERRIBLY From: THE GIRLS AT THE DONUT SHOP *****

ARRL FIRST TIME MEMBERSHIP FORM-CLUB CHALLENGE OF THE 80's

NAME.....CALL.....DATE.../.../...ID#1802

ADDRESS:.....

CITY.....ST.....ZIP CODE.....

Regular Membership: Blind/Over 65 age Family, add: () 1 YEAR \$25.00 () 1 YEAR \$20.00 () 1 YEAR \$2.00 () 2 YEAR \$47.00 () 2 YEAR \$37.00 () 2 YEAR \$4.00 () 3 YEAR \$65.00 () 3 YEAR \$50.00 () 3 YEAR \$6.00

MAIL TO: ARRL 225 MAIN ST., NEWINGTON, CT 06111

DAN'S REPEATER REPORT

HERE ARE DETAILS OF OUR RECENT REPEATER EXPENDITURES:

Dave Moss.....	Antenna Parts.....	\$ 33.00
Keith Butts.....	2M Repeater antenna.....	\$ 75.00
Craig Stewart.....	Parts, Power Supply, coax, rtc.	
	Total of 3 checks.....	\$ 792.00
ACC.....	Repeater Controller.....	\$1064.12
Quements.....	Misc. parts.....	\$ 71.10
	Total for 2M items.....	\$2023.24
Int'l Crystal.....	440 MHz crystals.....	\$ 37.50
Keith Butts.....	440 antenna.....	\$ 117.10
Craig Stewart.....	440 parts.....	\$ 71.20
	Total for 440 items.....	\$ 225.80

EDITOR'S COMMENTS ON OUR REPEATER

The above report was prepared at the request of your editor. I have heard directly and indirectly about the club spending two thousand dollars to get an ACC controller. At least one critic is quite vocal and is in a position to spread his distortion widely. I feel that some clarification of our repeater and its history will serve to thwart this distortion, especially to you newcomers. Note that the ACC controller actually cost \$1064.12. The remainder of the 2-meter installation costs would have been required regardless of our choice of controller. By my calculations from memory I would guess that we paid about eight hundred dollars more for an ACC controller than would have been paid for the counterproposal of a more simple controller.

I was in favor of the ACC controller for the reasons that:

I knew it would work, and that we could get prompt delivery. I knew nothing of the kit that was proposed as the substitute. I also lacked confidence in the completion of a working kit after receipt of the kit from the kit supplier.

The controller had more bells and whistles than we currently wanted, however, I was also confident that some time in the future the club would actually want some of the extra features offered.

The controller was designed to be

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upgraded to new technology within some limits as such technology becomes available in the ACC product line.

ACC is right here in our area with factory repairs just a short drive away.

The controller has a demand on the used controller market. The club could recover some of its investment in the event of phasing out the use of the controller.

An unavoidable complication of the ACC controller is the fact that it was supposed to be used in conjunction with some supposedly superior county surplus Motorola equipment. This has not been forthcoming; we are still using the former supposedly inferior repeater. Reasons offered are: (1) The use of the Motorola equipment was not feasible with the ACC controller. This is disputed by individuals with whose technical competence I have the utmost confidence. (2) The Motorola equipment was not cleared for removal from county property. It appears that this reason is the basis for our present repeater committee's failure to make use of the Motorola equipment.

The complaint is that we do not make use of the telephone line connection capabilities offered by the ACC controller. There is a simple solution for this. Replace or supplement the limited call line

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MINUTES OF BOARD MEETING

February 19, 1987

San Jose Hospital Annex

Meeting was not opened until 2015 upon WA6QYS's arrival at which time a quorum was achieved.

President Ed passed out copies of the club bylaws, which were reviewed and discussed in the interim. No changes were recommended, but it was noted that the treasurer rather than the secretary maintained the "Membership Book" through the medium of the roster. Also that the supply of copies of the bylaws was depleted and had not been given to the new members. A new supply will be printed and distributed at the next club meeting.

No corrections to printed minutes were noted, and they were approved as written.

The treasurer was not present for report (excused), but Pres. Ed noted that attempt would be made to contact those members who had not paid dues before March 31 deadline.

COMMITTEE REPORTS:

CONVENTION: Shorty, AE6Z reported that the Santa Clara Convention Center had been toured and that their overall offer was considerably higher than that of the Le Baron, as was also the Red Lion's. Hyatt had a prior booking. Le Baron Hotel's offer being essentially the same as last year, Shorty was planning reservation of October 2-4, 1987, with which the board concurred.

REPEATER: Kieth, KN6K reported for the committee that the duplexers for the 440 repeater had been ordered from Telewave as approved at last club meeting. Delivery is about March third.

OLD BUSINESS

COFFEE DETAIL: Pres Ed announced that Lee Henderson, KB6MXH had volunteered to take over the coffee detail, and had taken mover from Al, K6LHQ.

FIELD DAY: Dave Stoddart, KB6QQ has volunteered to be Field Day Chairman to be assisted by Chef Herb Himmelfarb, KB6ABG in the culinary dept.

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NEW BUSINESS

A suggestion by the secretary that the board meet after the club meeting was tabled until a full board was convened.

No further business being before the board, it was adjourned at 2041

Submitted for Terry Pratt, N6NRQ who was delayed

by Ed Rawlinson, WD6CHD

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furnished to the club at no cost by the County with an unlimited call line with SCCARA picking up the TAB. I suggest that the repeater committee survey the situation with the purpose of bringing the matter before the club by way of the board. We will then be in a position to accurately judge the merits or lack of merits of making such a decision. I, personally, am more in favor of emergency call repeater ties only, but I will cheerfully go along with what the club decides.

Another complaint is the 440 repeater. I am in favor of the 440 repeater. It is a worthwhile addition to the SCCARA emergency and routine communications facilities. I am looking forward to its soon to be full operational status. I will immediately shift to monitoring W6UU on 440. I find far less local (to my) equipment interference on that band. Makes for less annoying interference while monitoring. In a future issue, after I finish publishing some of Eric's material, I intend to explore the history of the SCCARA repeater and some of the blunders that have occurred in the past, and the reasons for them.

I am very pleased with the performance of our new repeater committee. They have brought the repeater to where it will soon be one of the best low-level repeaters around, and, with their enthusiasm, things should improve even more with time. I am sure that more improvements will be forthcoming. The

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The 70-Cm Band

Now, let's take a big step up to our next allocation: the 70-cm band, or 430 - 450 MHz. Originally this band included the range 420 - 430, but recent FCC restructuring has removed the lower 10 MHz from amateur use. Here's a band that's larger than 6, 2, and 1-1/4 meters combined. It's also a worldwide allocation, so equipment is plentiful and not that expensive. Whatever your fancy -- from weak-signal work to ATV, OSCAR, FM and repeaters -- there's plenty of room to engage in it on 70-cm.

Here is a true UHF band. Signals travel line of sight and can be affected by objects of varying density in the signal path, such as trees, buildings, and even clouds of moist air. Yet, since the 70-cm band is largely unaffected by sunspot activity (and subsequently any sporadic-E) it's a preferred choice for such services as commercial television in Europe. Since the wavelength is so small, high-gain multiple-element yagi antennas are possible using only 15 feet or so of boom length. Propagation enhancement usually occurs via tropo. In some cases, it's so intense that astounding distances can be covered. For example, during the hurricane last September that hit along the East Coast of the United States, signals from Florida were heard into Connecticut and Massachusetts! Tropo ducting is quite common at this frequency, although you usually have to be up a bit in elevation to hook into the duct. Signals can also be worked via aurora on rare occasions, as happened this past February when intense sunspot activity resulted in auroral activity from 50 MHz through 432 MHz! Stations were heard working grid squares from the East Coast into Illinois, Ohio, Michigan and Indiana via the "buzz."

Starting at the low end of the band around 432.010-432.050, you'll find the moon bouncers. This is a very

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popular band for EME since you can construct high-gain arrays that don't take up much room. Many European and Japanese EME enthusiasts go mobile or portable for their contacts, towing their arrays along on trailers. Power becomes more difficult to generate on 70-Cm as many of the popular ceramic tubes don't carry full ratings through 400 MHz. However the problem of Faraday rotation, the slow shift of polarization on reflected signals from the moon, is less pronounced on this band. It takes longer for the wave to shift - often minutes - as opposed to 2-Meters, where the shift occurs at a rapid rate.

Next you find the weak-signal types around 432.110 MHz, the national calling frequency. SSB and CW work is plentiful on 70 cm, especially during contests. Many operators use multimode transceivers to cover these modes, and, of course, there are many transverters made for the band.

Going further up, you run into the OSCAR uplink frequencies in the range 435-437 MHz. These are the inputs for Mode B with corresponding outputs on 2-Meters. The ATV crowd is next, for the 70-cm band is the lowest frequency allocation that permits Fast Scan Amateur Television. Many stations are in color, and there are ATV repeaters located on tall buildings in the urban areas.

Finally you run into the FM crowd above 440 MHz. Like 220 the 440 allocations are largely used up in the urban areas, but many of these repeaters are closed repeaters using PL or tones to unlock the machine for use by members. The national simplex frequency on FM is 446.000.

As you might expect, there's no shortage of equipment to choose from on 70-cm.

All of the major Japanese manufacturers make both hand-helds and multimodes for base and mobile operation. The major European manufacturers offer transverters for the band, as well as ATV transmitting and receiving converters. Since many of the radios on the market usually suffer from less-than-acceptable

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front end sensitivity, there's an abundance of preamplifiers available for both station-mount and mast-mount application. Serious users of the band employ low-loss cables such as 9913 and hardline for transmission lines, since the average coax for HF is too "lossy" here. Also standard in most cases is the use of low-loss 50-Ohm connectors, such as type N and BNC.

Amplifiers are also plentiful. Alinco, Mirage, TET, Microwave Modules, and Lunar make solid-state versions with outputs up to 140 Watts. For higher power requirements, Henry makes the 2004 and 3004 using 3CX800 and 8877 tubes. Antennas are available through a variety of sources including KLM, Cushcraft, Hy-Gain, Larsen, CueDee, Tonna and Jaybeam. OSCAR operators will go for horizontally polarized yagis, along with the moonbouncers and weak signal operators. All FM operation uses vertical polarization.

Oscar Mode L, used less frequently than Mode B, employs uplinks on 1269 MHz and downlinks on 436 MHz. At this time packet operation on 70-cm is sketchy at best. But due to the combination of spectrum space, world-wide popularity, and availability of equipment, 70-cm could easily become the next most popular band after 2-meters! Already in Japan, reports are made of the type of congestion we experience here on 144 MHz, with FM again the predominant mode.

(REPRINTED BY PERMISSION OF "73")

TO ALL YL's
BAYLARC QUARTERLY MEETING

1200-1600 SATURDAY, MARCH 21

COUNTY SERVICE CENTER
1555 Berger Drive, SJ

Coffee and tea served
Bring brown-bag lunch
For details call Carla:
(408) 773 1885

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OUR VEEP SAYS

Gentle People:

Last meeting's topic kindled some interest on my part in antennas. I am looking forward to field day to try out a new antenna that will be built just for the occasion.

I am looking for some experts to speak on TVI, HF Nets, receiver specs and new CW modes. If you can help please give me a call.

Our next talk is on a rather futuristic mode of transmission. This mode produces broad banded RF energy, but requires no antenna for transmission. Should be a great mode for us city dwellers. I believe that a fellow named Marconi is working on this mode, and I think that it's called spark gap. A local expert was recommended by none other than JD ("Dog "Bones"), who, by the way, was instrumental in getting the last speakers. Please come to hear Lee Dimter, W6YBV talk on spark gap at the next meeting.

73 de N6NOY

C-L-U-B B-R-E-A-K-F-A-S-T

Saturday, April 25, 1987 at 0900

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1555 Berger Drive,
San Jose

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MARCH 1987 ISSUE

Editor note: Repeated from last month because of my considered importance.

"EMERGENCY RESPONSE INSTITUTE"

The Santa Clara Valley Section ARRL will be presenting its "Emergency Response Institute" on March 28-29, 1987. The institute is open to all persons, amateur or not, who have an interest in "Emergency Response".

The institute will be held at the Santa Clara County Services Center, 1555 Berger Drive, San Jose, CA. Access is off of US 101 or Interstate 880.

The topics to be covered at the institute are as follows:

- Responsibilities of the Emergency Coordinator
- Publicity and Public Relations
- Mexico City Earthquake presentation
- ARRL Forum (TVI, RFI, VE program, OO program)
- Public Service
- Fund Raising and Procurement
- National Traffic System
- RACES
- SKYWARN
- Technical Forum
- Packet
- ATV
- Emergency Locator System

Cost of the institute will be \$5.00 for lunch and materials. A certificate will be given to those who complete the institute.

Please mail your reservation as soon as possible, as we expect to have full classes at the institute. Reservations are required and will NOT be taken at the door. This will give us an accurate count ahead of time for lunch.

SCVES-ERI

c/o Dave Larton, W6JQJ
766 El Cerrito Way #D
Gilroy, CA 95020-4149
(408) 847-3605

If you have been waiting for the chance to participate in discussions with ARRL, ARES, RACES, SKYWARN, NTS and other officials, then this is the ticket for you! A schedule of events will be included with your reservation confirmation

Assistant Section Manager for Training, Dave, N6NQJ

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primary aim for the club now should be to keep their level of enthusiasm up, and, in your editor's opinion, more members are needed on the committee. I had wanted to explore the repeater in greater detail in this issue, but time and space prevented such.

73 de Shorty, AE6Z

NEW LICENSING CONSIDERATIONS:

You, no doubt, have heard of the novice enhancement and the new technician license requirements. As I am writing this the following is what I have learned from the Manager of ARRL/VEC about the examinations:

The novice test will consist of thirty questions. The study content and question lists are at the printers at ARRL. Until those questions are distributed not much is known of their subject coverage.

The new technician and general class question lists and new study guides are at the printers. Those teaching or studying this material can be guided by dividing the existing question list so that those of a more general nature are on the technician test lists, and those of a more technical nature are on the general class list. Another criteria is that questions on regulations for a general class license will not be on the technician test etc.

Those upgraded to technician before March 21, 1987 will only have to take the thirteen word test to upgrade to general. If you renew or modify your license, save both the new and old originals to prove to a VE group giving tests that you were technician prior to March 21. Those upgrading before the twenty-first, but so close to the date that your new license shows a date after the twenty-first should save their upgrade certificate as proof.

The ARRL/VEC expects some confusion with these new licensing procedures, but the FCC will not relent on the effective date of the new requirements.

MARCH 1987 ISSUE

President.....Ed. Rawlinson, WD6CHD (408) 264-2988
 Vice President.....Allen Levin, N6NDY (408) 255 6852
 Secretary.....Teryl Pratt, N6NPQ (408) 281 3099
 Treasurer.....Dan Dietz, WM6M (408) 224-9023
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 Ed Rawlinson, WD6CHD. Mailman (408) 264-2988

Club Repeater: 146.985 in/146.385 out--447.425 in/442.425 out - a
 simultaneously keyed open repeater. Net meets Monday night at 1930 PT
 except on regular meeting nights.

Regular meetings are held on the second Monday of each month at 1930 PT.
 Meeting place is COUNTY SERVICE CENTER, 1555 Berger Drive, Bldg. #2.
 Visitors are welcome to attend.

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