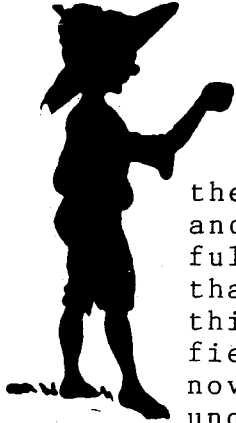




SCCARA-GRAM



VOLUME: 6 NUMBER: 9 PUBLISHED MONTHLY BY:
SANTA CLARA COUNTY AMATEUR RADIO ASSOCIATION
AN ARRL AFFILIATED CLUB-----ESTABLISHED 1921
REPEATER CALL: W6UU-----SECONDARY CALL: W6UW



OUR PREZ SEZ

Summer is ending with the passage of Labor Day, and it's time to get up a full head of steam ... not that we didn't do anything this summer. We had a great field day, and our special novice class was an unqualified success. On a quieter level, JD still holds forth with the code class and examination question discussion every Tuesday evening from 1900 to 2100 at 1555 Berger Drive in the classrooms. It's rather enjoyable --no pressure and a great way to meet your fellow members. Sure, we often get off on other ham subjects like: how to operate, what's good equipment, RFI from you and others, etc. You with a general or higher come on down; we'll pump up your ego by picking your brain.

You will recall that at our last meeting we voted to designate our October 12th meeting to be "OLD TIMERS NIGHT". Since it is Columbus Day, a County holiday with County buildings closed, we agreed to hold the meeting at: HARRY'S HOFBRAU, 390 Saratoga Avenue in San Jose (just South of Stevens Creek Road on the East). PLAN TO COME TO DINNER ABOUT 1830 (on you, but moderately priced. [Editor: great turkey dinners]), and the meeting should end about 2100. Bring your spouse, or whatever, and please encourage any past members to attend. It should be a great meeting; just after "PACIFICON" and a time to relax.

Which brings me to "PACIFICON": At this point in time we have about 350 pre-regs, of whom some 175 plan to attend the banquet, and 52 rooms are rented at the hotel. We're down

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to five exhibit spaces open with a few good prospects. All major equipment manufacturers will be present, some antenna makers, Gordon West, and several old favorites like HRO, Quement, Simmons, etc. We have some great prizes and some surprises, too. If you haven't phoned Allen to let him know when you want to work, please call him on 255 6852. You will see the latest state of the art at the best prices ever. You DID buy your ticket, DIDN'T YOU?

SCCARA plans to have a booth at the ham fleamarket at Foothill College on Saturday, September 12th. We have usable ham-gear that has been donated to SCCARA for this purpose. Also, we will be selling our old IBM Exec typewriter and stand. If you have some "sure-fire sales" that you want to donate for this club effort -

(SEE PAGE 3: ERRATUM)

No "boat-anchors or junk, please! This might buy us the new antenna for the repeater, and/or go towards a motor-generator for the trailer.

Did you get one of Quement's letters seeking ham-gear salespersons? WA6KUC, Bob Hutgens did and now he greets you as you walk into that area at Quement's.

Now I come to nominations for SCCARA officers and directors for 1988. I reviewed the bylaws and surprised myself. We actually have seven directors of whom the president and vice-president are two, leaving five. Directors serve a two year term with two elected one year and three the next to keep experienced people on the board. This is the year to elect two, as the seats held by Duke Dodge, KB6DLG and Harry Wijtman, AE6M

(CONTINUED PAGE 2 LEFT COLUMN)





WHAT KIND OF MEMBER ARE YOU



Are you an active member,
the kind that would be missed,
or are you just content
that your name is on the list?

Do you attend the meetings,
and mingle with the flock,
or do you usually stay at home,
and criticize and knock?

Do you take an active part,
to help the work along,
or are you satisfied to be
the kind to just belong?

Do you ever work on committees,
to see there is no trick,
or leave the work to just a few,
and gripe about the clique?

So come to meetings often,
and help with your hands and heart.
Don't just be a member,
but take an active part.

Think this over my friend ...
you know right from wrong.
Are you an active member,
or do you just belong?

Well????
(author unknown)

Reprint from: "W6PIY Heterodyne"



OUR PREZ SEZ



(CONTINUED FROM PAGE 1)

are expiring. Much to my surprise, I discovered that the station trustee is elected annually and is a ranking member of the board (we love you, Doc. Don't go away!). So that means that seats for: president, vice-president, secretary, treasurer, station trustee, and two board members are up for grabs. Bill Stevens, W6ZM is chairman of the nominating committee. Please communicate with Bill, if you could be persuaded to take one of the offices to be voted on. Call Bill: 377 6722.

UR VEEP SEZ

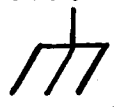
The speaker at the next meeting will be Bill Wakefield, a radio historian. He will display some examples of old radios, etc. Should be interesting.

I am looking for volunteers to help at the convention. Please let me know what days you can help. We will compile a list of needs and get back to you. Telephone numbers: (408) 255 6853 (home); (408) 973 8700 (work).

I just purchased a Palomar Noise Bridge because I don't believe in tuning antennas using SWR bridges. I'll let you know how it works. I am putting HF in my car, and I will use the bridge to tune the antenna.

We have started a satellite technical group. We will try to have lunch meetings and late night net meetings. Contact N6NOY, N6PCQ or W6BJY for more information. We haven't had too much succes in finding a suitable time for everyone so far. Our first project looks like a repeater antenna. It was enjoyable to just get together and talk. I learned a bit from the other guys. Join us so we can share.

Last, but not least! I want to run QRP next field day. I have been fairly successful running between 3 and 4 watts. US contacts are no problem. RST's are running 549 to 559. Try it, you'll like it!



73 de Allen, N6NOY

BETTER GROUND SYSTEM



Scientists working on an Army Grounding Analysis project have shown that grounding with the standard 6' metal rod, or even several rods in parallel, is often unsafe and more often inadequate for good low-noise communications.

They have found that a better ground can be established by stapling a 100' length of standard 1/8" stranded steel wire to the earth every 4' with 6" pegs. A 3 lb. hammer (in lieu of the 10 lb. sledgehammer used with the ground rod) should be sufficient to drive in the pegs.

Tests at all sites in the country show the surface wire to be 32%-95% more efficient than the 6' grounding rod.

CHARRO, San Antonio, TX
(copied from World Radio 9/87)

FROM YOUR TREASURER

NEW MEMBERS: Let's start by welcoming new member Tony Leber. Tony is working on his novice.

UPGRADES: Congratulations to: Frank McCormick, KA6HWC, general; Lowell Ashby, N6FFC general; Andy Noble, N6OCY, tech; and Sally Ortega, KB6STX, tech. Theresa Plata (XYL of Dan Plata, KB6RZD) is working for her novice. My apology to Michael Madden, KB6OHM. I reported his upgrade last month in error, but I am confident that Mike will do it soon.

REPEATER: The repeaters are sounding different these days. Thanks to a motion made by Ed, KB6DLB that SCCARA purchase an upgraded PROM set giving an enlarged vocabulary, plus other new features to our machine. The motion passed, and Ed high-tailed to ACC the next day. Installation is complete. Our cost was \$149.80. Contributors were: Ed, KB6DLB; Ed, WD6CHD; Merv, N6FZS; Doug, WN6U; Bill, W6ZM; Wally, KA6YMD; Kathy, KB6ICQ; Frank KA6HWC; Thor, N6OHK; Bob, N6PCQ; Keith, KN6K; Omer, N6PPK; Shorty, AE6Z, and me. Well done repeater committee.

USELESS INFO; Last year I printed a listing of our membership distributed by class of license. How do we look this year compared to last?

	1986		1987		1987
CLASS	#	%LIC	#	%LIC	#CHG
UNLIC	30	0	22	0	-8
NOV	43	22.4	29	13.6	-14
TECH	36	18.8	57	26.7	+21
GEN	36	18.8	44	20.7	+8
ADV	43	22.4	40	18.8	-3
EST	34	17.7	43	20.2	+9
TOTAL	222		TOTAL 235		CHANGE +13

Our most populous group is technicians with a gain of 21. Generals gained 8, and extras gained 9. Membership has grown over 6% since June '86. Also more members are licensed than last year. I don't think that most novices stay novices for long these days. That's why they are fewer than last year. Licensed members are up from 192 or 86.5% to 213 or 90.64%.

NOVICE CLASS; It's over! Just like that! We completed our 11-day novice seminar with terrific

(CONTINUED RIGHT COLUMN)

SCCARA-GRAM PAGE 3

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results. Meeting just two evenings and two Saturdays, our hard-workers did well with 6 new novices and 3 new techs. Two others passed the code element only and should complete soon. Only two of those taking the exams failed. We all congratulate this determined group. In particular two fellows who failed in previous attempts and found the new structure more to their liking.

Rod, KB6ZV is mentioning our endeavor in the next director's newsletter with a follow-up to be included in a future issue. The new ARRL code tapes are quite satisfactory. I am letting Rod know about the problem areas encountered in the text in our mutual hope for correction in the next edition. If you don't believe there are problems, buy one and check it out.

I'll have the names of our newest SCCARA members and, hopefully, their new calls in the next SCCARA-GRAM.

73 de Dan, WM6M



The butterfly has wings of gold.
The firefly wings of flame,
The bedbug has no wings at all,
But he gets there just the same.

Poet unknown

ORC Newsletter

Badger State Smoke Signals

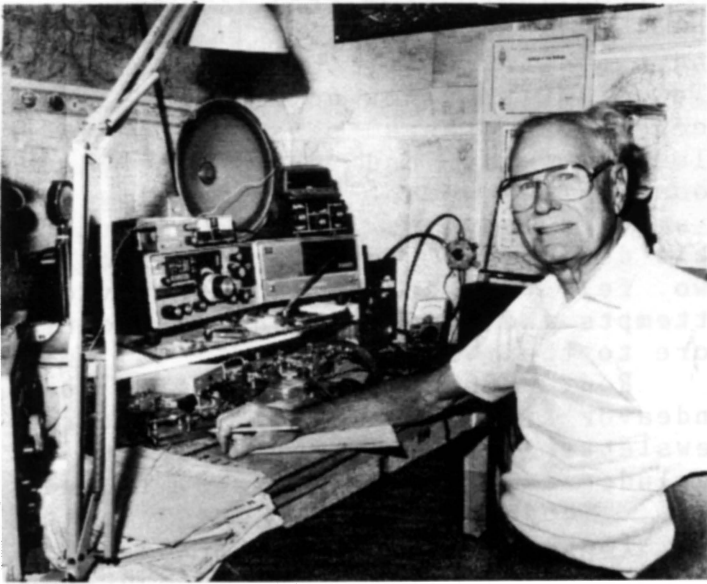
See ERRATUM on Page 1

Our PREZ erred in a statement on page 1 (SEE ERRATUM). The best solution is to call Ed, WD6CHD, 264 2988 or JD, K6YKG, 227 2033 to make arrangements to donate saleable items to the SCCARA booth sales.

ATTENTION W600Y
DANGEROUS CREATURE



SEPTEMBER 1987 ISSUE



JAMES DADDYSMAN, K6YKG



FRANK MC CORMICK, K6HWJ

JD is a retired field engineer for NCR Corporation (formerly National Cash Register). He has logged 48 years on the air -- the last 12 in SCCARA. He likes to operate CW (what else?) on all three: 80, 40, and 20 meter bands. Tune in the Northern California Net on 3.630 MHz each Saturday at 2100 to hear JD operating as net control -- pouring 100 watts of RF into an 80-meter dipole using his ATLAS 350 XL. His shack also contains an assortment of old tube rigs and a prized collection of bugs (mechanical automatic keys). He proudly displays his "A1 Operator" award and a 25-WPM CW certificate. He is an extra class, and his pet peeve is hams who don't upgrade to at least general.

Frank, now a general, has been a ham for nine years and a member of SCCARA for three years. His rig inventory features a YAESU 767 GX along with KENWOOD SP700, TH-21-AT AND TH-31-AT PLUS ICOM 260. Frank's favorite bands are the 2-Meter and 40-meter bands. He uses both phone and CW. Antennas are a 5-band vertical (the highest in the mobile home park) and the 2-meter shown in the photo. Working as a machinist at Westinghouse, Frank is also active in the VIP program.

Comments on this new feature are requested by Bob.

=====

HOTEL REGISTRATION: - ASK FOR SPECIAL "PACIFICON '87" RATE
 LE BARON HOTEL, 1350 N. FIRST ST., SAN JOSE, CA 95112
 PER NIGHT (SINGLE OR DOUBLE OCCUPANCY): \$48.00 PLUS 8% TAX
 SPECIAL RATE GOOD THURSDAY, FRIDAY, SATURDAY, AND SUNDAY NIGHTS
 CALL HOTEL DIRECTLY - (800) 662-9896 (FREE) OR (408) 288-9200
 FOR CONVENTION INFORMATION - CALL (408) 243-8349

PACIFICON '87" PRE-REGISTRATION ORDER FORM OCTOBER 2, 3, 4, 1987
 MAIL THIS FORM TO: "PACIFICON '87", 481 FENLEY AVE., SAN JOSE, CA 95117
 ALL TICKETS WILL BE AT REGISTRATION IN YOUR NAME -- NO REFUNDS AFTER 9/29
 NO-SHOWS WILL PARTICIPATE IN ALL MAJOR AWARD DRAWINGS

NAME: _____ CALL _____
 ADDR: _____
 CITY: _____ STATE _____ ZIP _____
 OTHER CALL(S)/NAME(S) _____

EA PRE-REGISTRATIONS (\$12.00 EACH)(1 PRE-REG CHANCE).....\$.00
 POSTMARKED AFTER 9/27 AND AT DOOR \$15.00 EACH

EA 18 YEARS OR UNDER (NO AWARD CHANCES).....FREE

EA BANQUET TICKETS \$20.00 EACH (ATTENDANCE LIMIT 250).....\$.00

EA STANFORD LINEAR ACCELERATOR TOUR BUS FARE \$8.00 EACH...\$.00
 (BUS TRIP WILL BE CANCELLED WITH REFUND IF SIGNUP LESS THAN 30)

PHONE: (_____) _____ TOTAL ENCLOSED:..\$.00

=====

EDITOR'S CORNER

This month I find myself with a surplus of material. I had prepared pages for the letter in advance, and club officials were more eloquent than usual. Could it be that they are campaigning for re-election. I limit the letter to seven pages and the cover sheet. I feel that too many pages would reduce complete reading by most of you. I hope that most of you read the amount that you get. Ed Mangan, KB6DLB gets priority on space for an article on the repeater in the October issue.

The convention planning is progressing rather nicely now. Allan Levin, N6NOY is finding volunteers from among you. George Allan, WA6O is starting preparation of the program. Chile Hot Dog reports that we are almost sold out on booths today (September 6). I am beginning to feel that we will successfully pull off another convention thanks to member response to needs.

Some of the members with responsibilities to date that haven't been mentioned in the previous paragraph are: Dan Dietz, roving trouble shooter during operations; Merrill Card, KB6TO, accelerator trip; Roy Metzger, ARRL test sessions; Doc Gmelin, W6ZRJ, banquet operations, George Allan, WA6O, convention operations, Rod Stafford, KB6ZM, sessions; JD Daddysman, K6YKG, wouff hong and radio station; and last, but by no means least, Virginia Metzger, K6IIU who is watching our finances with the eyes of a hawk.

At present, I am seeking someone to oversee the prize awarding. I offered it to one person, but have not had a reply to my letter as of this date. Allan is still actively seeking more short time help for convention operations.

On major awards (ARRL rules) we have the following: Pre-reg award, TEN-TEC Corsair courtesy of Quenents; grand awards lined up to date: Kenwood TS940S; two rfconcepts 2-meter amplifiers; ICOM 2-meter HT; Kantronics KPC-2400; AEA PK64/HFM; AEA PK232 with FAX; and more.

If you started from the front of the newsletter, you have already seen page 4. This is the work of Bob Keller, KB6OHJ. I am not aware of the selection method used by Bob to pick the two subjects for his first product. We hope to expand this effort in the future. You will be asked to vote on the expenditures needed to finance future products. It isn't overly expensive, but will increase the cost of producing the SOCARA-GRAM's containing such material. Bob has plans to run features on field day, old-timer's night, etcetera. I hope that Bob has the figures ready for cost estimates in the near future. We are open for suggestions on subjects for photography.

Back to the convention. See Rod Stafford's next letter to division ARRL members. He will offer details of the programs schedule. You aren't a member of ARRL! WHY AREN'T YOU? I will be the first to agree that the ARRL is not perfect, but after fifty years of membership I am convinced that without ARRL there would be no ham radio.

(CONTINUED RIGHT COLUMN)

The following bit of fiction is actually based on an experience of mine during WW2. I will let you guess what the true parts are.

A TROPO DUCT?

It was about Mid-March 1944, and I was just finishing the installation of an SCR-522 in the control tower at the Navy Base on South Seymour Island in the Galapagos Group. I had been out there about three months to rebuild the radio station, and installing this 522 in the new control tower would complete the job. My helper and I were running operation checks on the unit when we heard a feminine voice coming from the speaker.

We listened for a while and concluded that we were hearing the Navy Control Tower in Philadelphia but not the stations or planes calling the tower. The frequency was 143 MHz and a fraction. I am unable to use my partner to verify any of this, as he was killed in action within a year. The two-meter band in those days was at 112 MHz, and was called the two-and-a-half meter band.

With my ham curiosity aroused, I decided to see if it was a two-way path.

I spoke into the mike: "Philadelphia Tower, this is Advanced Base Gamma."

The feminine voice came right back: "Advanced Base Gamma, this is Philadelphia Tower. Go ahead."

The sound of her voice made me think that her knees were shaking, but she was safe from punishment. It was her obligation to answer any call to the tower and try to authenticate it. Of course, she did not know that the planes were not hearing me, but those flight-jockeys spent most of their time dreaming of earning an air medal or some other decoration. No one ever listened to the PE recorder that was recording our every word unless some incident like an accident occurred, and I was using the call of a base six-hundred miles east of us. I was safe, because the books of that day said such contacts were impossible, and her chance of trouble was minimal.

I replied: "Are you in Pennsylvania?" I was trying to confirm my suspicions.

She came right back with: "Yes." Then after a pause, "Where! are you?"

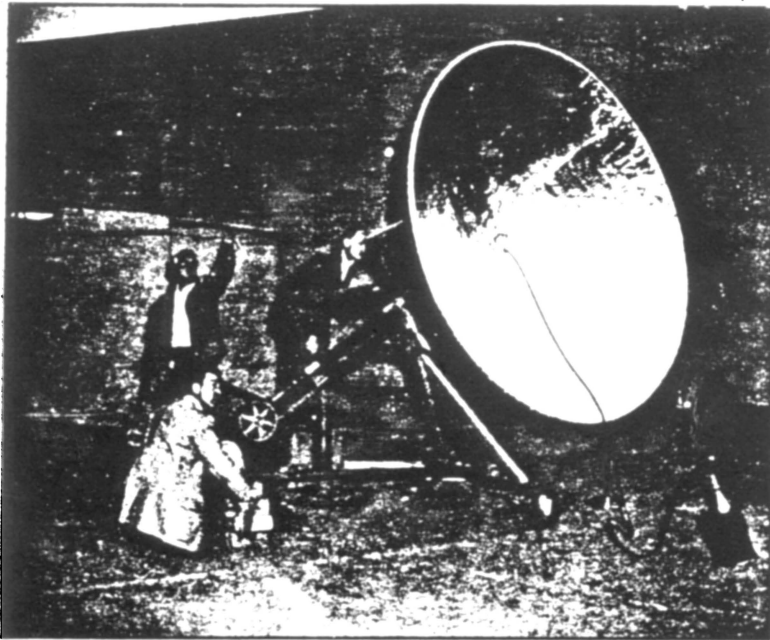
Using my most sexy voice, I said: "Baby, to pat you on the fanny I would have to use my three-thousand-mile-long arm!"

Since no WAVE ever let a sailor have the last word, in a sugary voice she said: "Try it Sailor! and I'll use my three-thousand-mile-long arm to slap your face!" as the signal from Philadelphia Tower faded out to be never heard again.

CQ TEEN-AGE HAMS de Lee, KB6SZA

After receiving my technician ticket in early July I have made many contacts, some to as far away as Ecuador, but I have not been able to find any teen-age hams. Therefore, I am seeking all teen-age hams in the Bay Area with an interest in forming a net with the ultimate goal of forming a club for us. I monitor the SOCARA repeater in the evening. 73

SEPTEMBER 1987 ISSUE



Some of the moonbounce team members are shown here in a 1960 photograph. Kneeling is George Badger, then project engineer; pointing is Hank Brown, then marketing manager; and peering through the telescope is Bob Morwood, then product engineer.

"A few weeks after the experiment, I attended a conference in the East. One of the speakers asked me, 'How did a few amateur radio operators communicate by moonbounce after a few months' preparation, while the government's moonbounce project took two years and millions of dollars?' The answer was simple. We were successful because we loved what we were doing."

Bob Morwood
Sr. Engineer
Varian Research Center

"This project proved that often advances in technology come from peoples' hearts, as well as from their minds."

George Badger
Marketing Manager
Eimac San Carlos

A moment in history

In the cool, silver light of the morning moon, two groups of ham radio amateurs sit at opposite ends of the country; one in San Carlos, Calif., and the other in Medfield, Mass.

At Eitel-McCullough, Inc. (now Varian's EIMAC San Carlos Division), the Eimac Gang Radio Club (W6HB) of San Carlos clustered around two small, wooden buildings and a dish antenna - sitting alone in the middle of an empty lot. It's about 7 a.m. Someone opens a thermos of coffee, and conversation hums. As the equipment warms up, anxious eyes scan the meters, and two operators fiddle with the receiver.

Someone takes a pencil and scribbles on the plywood wall of the receiver shack: "July 21, 1960. First moonbounce transmissions to W1BU from W6HB start approximately 0700 PDT (Pacific Daylight Time)."

"Calling W1BU, hello from W6HB."

George Badger, then project engineer at Eitel-McCullough, Inc., sends the message in morse code - to the moon. The signal bounces down to Medfield, where members of the Rhododendron Swamp VHF Society are waiting.

"Hello W6HB. We hear you."

Contact was made. What followed was the first amateur radio moonbounce two-way microwave message ever sent. It was the same message that Samuel F. B. Morse sent in his first telegraph on May 24, 1844.

"What hath God wrought!" George quoted.

In that instant old radio communication concepts were swept away, and new, exciting fields were laid open.

The basic concept behind the 500,000-mile detour to cover an actual distance of about 3,000 miles was that VHF (very high frequency) radio waves travel only in straight lines, and hence are limited to the length of the horizon before it curves. There were no communication satellites then, and so the group used the moon, earth's natural satellite, to bounce the straight-line stream of radio signals into a scatter pattern that reached the receiving set in Massachusetts.

Some of those original pioneers are with Varian today. Bob Morwood is a senior engineer at the Varian Research Center; George Badger is EIMAC San Carlos' marketing manager; Bill Orr retired last year, but still serves as a consultant; Bob Sutherland is manager of EIMAC San Carlos' applications lab; and Hal Jones is a product engineer at Thin Film Technology Division.

The Varian Technical Library remembers moments like this in exhibits in the Building 7 lobby, with memorabilia from the above experiment currently on display. If you'd like information about your group's project, invention, or historical achievement featured in future exhibits, call Marna Arnold or Sharone Dresang at Palo Alto extension 5071.

TABLE RESERVATION FORM

Name: _____ Call: _____
 Addr: _____
 City: _____ Zip: _____
 Phone number: _____
 Number of tables to reserve: _____
 Cost per table: \$5.00
 \$ Enclosed: _____
 Desired location: Inside
 Outside
 Send to: SCRA
 Box 116
 Santa Rosa, CA 95402

FLEA MART

Our 5th annual Ham Radio Flea Market & Auction is SATURDAY SEPTEMBER 19 at the Sebastopol Community Center. From Santa Rosa, take Hwy12 West about 10 mi, & look for the sign. Talk-in on 146.13/73.

FREE ADMISSION !
 8AM-2PM. Vendors set up at 7. VEC exams, Antique Radio, Free Door Prizes, Radio Clinic, ARRL, etc.

To reserve your table, send \$5 to SCRA, Box 116 Santa Rosa, CA 95402.

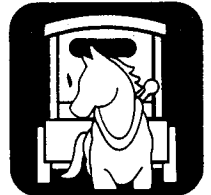


FCC EXAMS start at 1PM at the Fire Station at 7425 Bodega Ave, Sebastopol, CA. (Maps available at Flea Market registration desk.) All Classes Technician thru Extra will be offered. (Novice will be given only to unlicensed persons applying for Technician or higher.)

PRE-REGISTRATION for exams is a must. Send your filled-out 610 form and a photocopy of your license (if any) to the address below. On test day, bring a check for \$4.35 made out to ARRL/VEC and positive ID (such as photo-type driver's license.)

EXAM CONTACT PERSON: Hank Davis W6DTV
 7822 Washington Ave
 Sebastopol, CA 95472
 707-823-7885

ALTERNATE: Steve Lund WA8LLY
 707-823-4544
 (call after 7:30 PM)



BAYLARC NET

Commencing Monday evening, September 14, 1987 BAYLARC is starting a net for YL's only on 28.333 MHz. Sue, KA6SOC will be acting NCS. Net will operate Monday, Tuesday, and Wednesday nights each week at 2100 Pacific Time to start, but will be reduced to one night per week at a later date.

BAYLARC MEETING

Saturday September 19, 1987 at 1200 in Moss Beach. For details Call Carla, W06X on (408) 773 1885.



Didjano?



The first electronic gain controls were rheostats controlling the filament voltage of tubes.

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Harry Wijtman, AE6M	Clarence Dodge, KB6DLG	:.....:

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 Joe Quirantes, WA6DXP. Data Base Mgr. (408) 371-0959
 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.

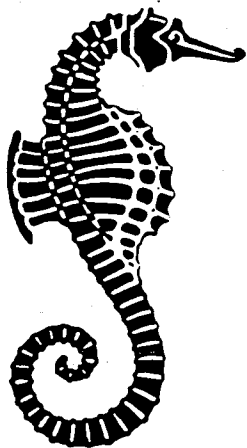
Regular meetings are held on the second Monday of each month at 1930 PT. Meeting place is COUNTY SERVICE CENTER, 1555 Berger Drive, Bldg. #2. Visitors are welcome to attend.

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SCCARA-GRAM is published monthly by the Santa Clara County Amateur Radio Association.

SANTA CLARA COUNTY
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