

FEBRUARY 2000

THE MONTHLY NEWSLETTER of the SANTA CRUZ COUNTY AMATEUR RADIO CLUB

SHORT SKIP

RF Exposure Safety

We live in a world bathed in electromagnetic fields and the question of their affects on human health is a highly complex one. The scientific community specifies maximum exposure limits but these are difficult to apply in practice and must be supplemented with some commonsense. The 1999 edition of the ARRL Handbook Chapter 9 lists 7 such guidelines and has a publication dedicated to the subject.

The FCC requires that amateur stations comply with their safety rules and a quick check of your station can be taken by visiting the following site :- <http://n5xu.ae.utexas.edu/rfsafety/>. This program is intended for approximate far-field calculations. It may overestimate the actual field strength of high-gain antennas in the near field (within several wavelengths of the antenna.) However, it may also underestimate the strength of fields that may be encountered in hot spots in the near field. For near-field estimations, the ARRL provides a program, nf.exe, a freeware version of commercial antenna modeling software written by Brian Beezley K6STI, which is only executable on computers running MS-DOS-derivative operating systems.

The safe use of VHF/UHF handheld transceivers with antennas only a few inches from the brain should be of particular interest to radio amateurs. The ARRL guideline states ikeep the antenna away from your head, use the lowest power possible, use a separate

Continued page 2

RADIO – THE EARLY DAYS

The following article appeared in the December 1994 ShortSkip, newsletter of the Santa Cruz County (CA) Amateur Radio Club. Roy Couzin was an active member of the Santa Cruz County Amateur Radio Club, San Lorenzo Valley Radio Club and QCWA for many years. Roy became a Silent Key this week.

— Wayne, KB6KN

A Typical Ham OT?

The year is 1935. The world is in the grip of the Great Depression. Franklin D. Roosevelt has been President of the U.S. for two years. In Europe Hitler has been in power for two years. The horrors of World War II are as yet unimagined.

Ham radio was an elite group—should I say fraternity? There were only about 40,000 licensees in all the U.S. An ARRL survey that year showed 95% of ham interest was in the 16, 80, 40 and 20 meter bands. Two out of three amateurs were opposed to



Roy Couzin, W6ZLZ/W6JET SK

opening up the 40 meter band to phone operation. No one even contemplated a no-code license. Ten meters was still considered to be VHF. While some five meter activity could be found around population centers, the 2.5 meter band was very much an experimental frontier. In those days you couldn't order a complete new station by telephone. There were no 800 numbers to call. There were no credit cards. Getting on the air meant the average newcomer must first build a transmitter and receiver from scrounged parts.

A New Brass Pounder

Several of our members have been around amateur radio for a long while. Among these is one long-time ham who still

makes his presence known to us. W6LZL came on the air from Oakland—and later from San Jose. Roy Couzin, our outgoing President, planned a career in radio. He enrolled in a local radio school, training to become a shipboard operator. Unfortunately, in those depression days there were no available jobs. When WW II erupted, Roy joined the Navy where he saw extensive action as a radioman in the Pacific theater.

Continued page 2

CLUB MEETING FRIDAY FEB. 18, 7:30P.M.

SHORT SKIP

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Trade or Sell Table

Bring your surplus radio gear to sell or trade. The table will be set up before the club meeting. Put a price on your goodie and have fun trading or selling: mics, connectors, handhelds and related equipment, receivers, transmitters, etc. Let's have fun!

—Dan AA6GD

BATTERIES WILL LAST LONGER

Motorola researching methanol batteries: According to a Reuters report, Motorola researchers and scientists at the Los Alamos National Laboratory are working on a new mini-battery for wireless devices. The fuel cell, which uses methanol as the power source, reportedly will last 10 times longer than batteries used today. But, consumers will have to wait for at least three years to see them in stores. The battery will be packaged in a see-through tube, so users can check their battery supply at any given time. The cost of the methanol batteries should be in line with current power supplies, Motorola says.

—Reuters



Prez Sez

This Valentine's Day why not take a moment to reflect upon what you love about Amateur Radio? You might even consider writing a radio love letter for Short Skip to share your warm and fuzzy feelings with the rest of us. I'd like to make this year a lovefest at SCCARC. As diverse as our hobby is and our persuasions are, the bottom line is we are all hams: you've gotta love us!

At our January Board meeting we appointed Cap Pennel, KF6AFE, chairman of the Repeater committee. I am certain Cap will do an excellent job in this capacity, in addition to his secretarial duties. I have appointed Dave Rank, KO6RS, to replace outgoing board member Bruce Wade, W6FKD, and barring any unforeseen controversy Dave will be officially installed at our February board meeting. Best of 73's to Bruce, who will be moving to Reno, Nevada.

I will be working over the next couple of months on appointing committee chair people and also reevaluating the functions and purpose of each committee. Currently the committees at SCCARC include Training, Program and Entertainment, Emergency Coordination, Repeater, TVI, Greeters, Membership, Publicity, Refreshment, and Nominating. Anyone who feels inclined to serve in any capacity, on any committee, please contact me regarding your preferences, and I'll get you plugged in.

—73, KQ6DV

Couzin Cont.

Following the war, Roy moved around the country while pursuing a 48-year career as a scientific glass-blower. He holds several patents involving laboratory equipment. Ham radio was too tame to hold his total interest, he also pursued skydiving for years. His current call, W6JET, was acquired after he returned to California. He keeps the call active on local repeaters and on HF.

OK Roy, it's time to retire once more!

(Note — the article included photos showing Roy working at his bench in 1935 and another showing Roy in his 1994 shack. Roy regained his original call of W6LZL when that became possible.)

R U Renewed?

Regular full memberships are \$25. Each additional family member of any age at the same address can join for only \$6. Full-time students 18 years old or younger can become members for \$10. All memberships were due for renewal as of January 1, 2000.

Bring dues money or a check to our treasurer, Allan WB6RWU. Or if you would rather renew by mail make your check out to SCCARC and send it to the club mailing address:

SCCARC PO BOX 238 SANTA CRUZ CA 9506

RF Cont.

microphone and hold the rig as far away as possible. This seems virtually incompatible with the use of HT devices. How far away is away, how low is low and how much exposure time is acceptable over what time period?

The FCC requires no evaluation of handheld devices because they are presumed in compliance with their safety rules. Note however the cell-phone industry and academia in many parts of the world continues intense study of the issues. Several results have been published that are worrisome but inconclusive and I know that concrete answers will be many millions of \$ in research and many years and probably decades away.

In the meanwhile commonsense tells us to reduce RF exposure as much as possible and how this is interpreted is a personal matter at this time. Here are my own unscientific rules for HTs:

5 Watts is too much I never use more than 500 mW.

60 minutes in any day is too long and I never exceed 15 minutes.

I avoid using an attached antenna whenever possible

I do not know if this is safe or not or not or not or not.

Enjoy RF safely

—Ron W6WO



By Art Lee WF6P

CHATTER

"Anytime there is hot coffee at a McDonalds, we can always find a ham or two!" said Jack Scanlon, KQ6CH, as he slapped me on the back. He joined my XYL, Donna, AB6XJ, and I at our table. We had a nice long chat. Jack and I shared some past experiences. We had both worked for the Pacific Telephone and Telegraph Company, only at different ends of the spectrum and a long time ago. I was a sweeper in the offices in Hayward, but, being too young to climb telephone poles, some of the gang was teaching me to splice cable. I was also learning to install dials in the old black stand-up desk telephones whose only way of contacting anyone was when an operator said, "Number please!" Sometime in his 30 plus year career Jack was a Wire Chief - top dog in the regional offices. I wanted to go "high-tech" and work as a troubleshooter in the switchboard room. Somehow, cleaning relay contacts was what I wanted to do to get ahead. Besides, those telephone operators looked mighty interesting to a 17-year-old. Alas, the Navy called so off to sea I went.

Our last club meeting was great. Our speaker, Dave Rank, KO6RS, delivered his usual sterling lecture. This one was on the propagation phenomenon of ducting. I heard once, where sailors on carriers in WWII in mid-Pacific, heard Marine fighter pilots transmitting while in dog fights over Guadalcanal. The distance was a thousand miles or greater. This wasn't supposed to happen. Dave's nice presentation included slides and an overhead projector. We club members were educated and entertained once again.

The club meeting was kicked off by introductions and a brief "RST" of how we members felt about the new Amateur license restructuring program. It was a pretty solid 599 from all of us. We all pretty much agreed that three license classes and a 5 wpm code exam will be a

good thing. For those who enjoy CW, getting on the air in this mode — remaining at 5 wpm won't last long. It is impossible to not increase your code speed through use. Getting on the air is the answer to better and faster code. CW will be around as a fun part of the hobby for many years to come.

Dan Anderson, AA6GD, was on hand with his swap and buy table. Free ham magazines were available. As I walked out the door, Dan presented me with a very nice 2 meter antenna. I will take this up to Sacramento for my use up there. Thanks, Dan.

I attended a Quarter Century Wireless Association meeting in Watsonville. Chapter 191 welcomes as Associate members all amateurs interested in preserving and sharing the hobby with others. The outgoing president was Lloyd Cabral, AA6T. For info about Chap 191 listen in on the Tuesday net weekly at 1900 local time on the 146.7 (-) MHz repeater.

I received a nice set of photos from Pat Henry, WA6PKM, who recently changed his QTH to Gold Beach, Oregon. He has plenty of room for multiple antennas and beams. The caption on his photos read, "No taxes, license fees for all vehicles is \$35 every two years, and there are no sales taxes. All gas stations are full service." Enjoy, Pat, but let's hear you on the air!

Leon Fletcher, AA6ZG, is putting another article together for Monitoring Times Magazine. The editor tasked him with writing up a piece on the radio museum located at San Francisco's Fort Mason. Look for it in a future issue (perhaps May).

Bruce Wade, W6FKD, is also changing his QTH. He is in the process of moving to Reno, Nevada. Lotsa room for antennas!

While in Sacramento, was tuning around the 40-meter band and heard a nice, clear, CQ. After about the fifth call, I decided to respond. The op had a good fist. Turned out that he was QRP at 4 watts and had been pounding brass for the past 43 years. Frank, AB6SG, was a Marine Corps pilot in WWII on Okinawa, Saipan and Iwo Jima. He also flew R4Ds in Korea with lots of war stories to tell. We were on for nearly an hour and had a good chat.

Long-distance rescue via Morse code

Gene Nailon, K5DLE, reports a ham in the Rockies has a fellow amateur in Oklahoma and the Morse code to thank for helping after he fell ill during a QSO December 17.

Larry Watson, W5EIU, in Oklahoma City answered a CQ on 3710 kHz from the Wyoming ham. They had been talking for about 15 minutes when the Wyoming op told Watson: "I think I'm having a heart attack, and I can't get to the phone." After that, his transmission broke off, and Watson was unable to raise him further.

About the same time, Jim Caldwell, WJ0C, of Waterloo, Iowa, broke in. WJ0C was able to look up the full name and location of the Wyoming ham and relay the information to Watson, who called the police in the Wyoming town to alert them to a potential medical emergency.

It turned out they were right. The Wyoming ham—whose name and location were unavailable—was hospitalized, and the prognosis was said to be good. Watson, first licensed at age 13 in 1954, says this was a first for him. (By the way, both Watson and Nailon belong to Central Oklahoma Chapter 63 QCWA.)—Gene Nailon, K5DLE From the ARRL LETTER Volume 19 Number 1

ARES REPEATERS

The Santa Cruz County Office of Emergency Services furnishes three repeaters to ARES. The repeaters are operated by ARES. All repeaters require a PL of 94.8. The frequencies and locations are as follows:

KD6FXQ	147.015+	Watsonville
N6IYA	146.745-	Bonny Doon
W6FKD	146.835-	Summit

FYBO ("Freeze Your Buns Off") CONTEST

One of my favorite contests is the FYBO. Put on by the Arizona Scorpions QRP Club, the FYBO is a winter field day event. It is the only contest where you can get multiplier points based on the frigid temperature at which you "Freeze Your Buns Off".

Winter weather conditions on the central coast of California are not really amenable to an outdoor radio adventure. Seasonal storms bring rain and high winds and are notoriously unpredictable. In addition, our relatively mild temperatures are not very conducive to high multipliers for the contest. Knowing the odds were against us, yet never the less optimistic, Tom, KQ6DV, Ron, K6EXT, and myself, Jeff, AC6KW set out to plan our best FYBO yet. Our plan was to get up early on the day of the contest, travel to a nearby mountaintop, set up our stations and play the day away.



L - R K6EXT, KQ6DV

We chose to go to Mount Madonna County Park. The park is nearby and we had previously worked the 1999 Bumblebee contest there. We knew of a really good location in the park to set up our antenna. A special place, a place with "The Branch".

Tom was off work on the Friday before the event and set out to score the site for us. Friday began as a beautiful day. The sun was shining and it was fairly warm, but as the day progressed the weather turned dismal. To make matters worse Tom discovered that our beloved site was in a portion of the park that was closed for the winter. He would have to find us another location. He did a fine job of securing another location for us with a branch similar to the one we knew and loved. Using a slingshot, Tom placed two ropes over the branch and left them hanging overnight to give us a head start on set up in the morning.



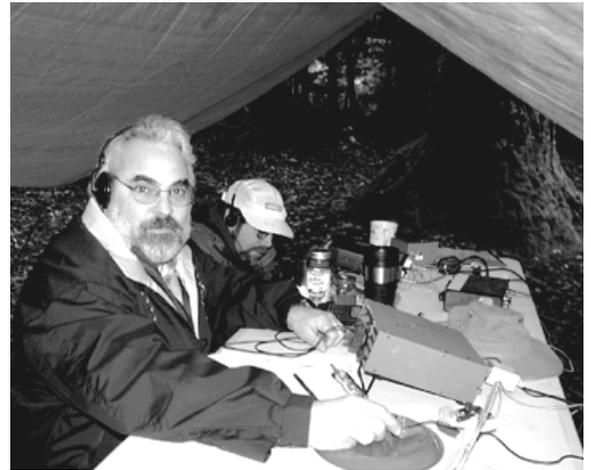
RAIN SHELTER

The weather report for Saturday was for rain, wind, and more rain. A late night decision was made that we would persevere. Anyhow, we all know how accurate weather reports are: maybe they would be wrong. Saturday morning was as all early morning outings are. Out of the comfort of a warm bed and into cold damp morning mist, constant thoughts of crawling back into bed running through my head. During the trip to Mount Madonna, we discussed our plan of attack. The first thing that we would do was set up the station's main antenna; a 100-foot flat top center fed with 300-ohm ribbon cable. Then I would get on the air and "get the show on the road" while Tom and Ron would set up a tarp over the operator's position, and then string up a random wire antenna for Ron's station. Ron elected to go it alone

with his new Alinco DX70TH portable HF station. Working as a team Tom and I would take turns at the helm of my station.

The sun was just starting to rise as we approached the foot of Mount Madonna, and although it was overcast the horizon was clear and to our surprise a rainbow formed over the valley. Not just any rainbow, but a double rainbow with hints of a third ring. "And where did the rainbow end?" you ask. It ended at the campground at the county park: probably at our site. We took this as a good omen.

We arrived at the campground and as per our plan got the station antenna up and I began operating. The rig was my Elecraft K2. With its new internal ATU, we were able to get a perfect match on all the bands that we would be operating on.



AC6KW, K6EXT

The sun was now rising, the sky was clearing, and 15 meters was hot. We thought about not putting the tarp up, as the weather seemed to be clearing, but decided to play it safe. This proved to be a wise decision for as soon as we finished hanging up the tarp the clouds started piling up. Then the drips started. First one at a time, then two, then buckets. The tarp was working well. We were dry and the temperature was 47F. Not cold by mid-western standards, but perhaps cold enough to

FYBO Cont.

put us in the running. Then came the wind, not just a spring breeze, but the kind of wind that makes rain fall sideways. Now we were getting wet. Tom and Ron made the decision that the table would need to be moved to the far end of the tarp in order for us to stay dry. So they picked up the table and started moving it. The only problem was I was in mid-QSO! I started to protest, but Tom simply said "No problem, just sign QRP mobile!"

We worked on through the day managing to stay fairly dry and a bit warmer than hypothermic. As 5:00 came around, the ranger came by and hinted that she would need to be closing the park soon. We told her we were just finishing up. A bit later, she drove by and flashed her lights at us. Tom said, "Just 2 more QSO's. At about 5:45, with the ranger standing at our campsite tapping her foot on the ground, we decided it was time to quit. By the time we finished breaking camp at 6:00, it was pitch black, the fog had rolled in and we were really starting to get cold.

All and all we had lots of fun. With 5 watts, a 3AH battery, and a field antenna, we made QSO's from Alaska to Florida, and from New York to California. Seventy-five QSO's in all, and with our multipliers for the temperature, alternative power, and field operation, we had plenty of points to keep us in the running. This years FYBO turned out to be quite a blast. Now it is on to the next QRP contest.

— Jeff AC6KW

New FCC Antenna System

The Army Corps of Engineers is in the process of installing an all band delta loop antenna at the FCC's Gettysburg, Pennsylvania location. The seventy-five foot high sky hook will be used to assist commission personnel in the real-time monitoring of the Amateur Radio service. It will also serve as what engineers call a force multiplier as part of the FCC's High Frequency Direction Finding Center located in Laurel, Maryland.

SCCARC MINUTES of the BOARD

- A regular meeting of the board was called to order at 1847 hours PST on Friday January 21, 2000 at Dominican Hospital Education Center in Santa Cruz. The president, Tom KQ6DV, was in the chair. Also present were the vice president, Don KF6KGO; the secretary, Cap KE6AFE; the treasurer, Allen WB6RWU; and the members of the board, Bruce W6FKD, Bruce AC6DN, Bill W6PAD, and Ron W6WO.

- The minutes of the last board meeting of 1999 were unanimously approved upon motion by Bruce W6FKD.

- The treasurer's report was unanimously accepted. The club has approximately \$3129 on hand. As usual, the new president Tom will appoint an audit committee to report on the treasurer's 1999 records.

- During committee reports, Tom reported that Rich KI6EH would like to be replaced as repeater committee chair for 2000. Bruce AC6DN gave a report on the current state of the repeater system.

- During new business, committee organization for this year was discussed. Tom would like the committee organization to be updated. The board agreed to examine the bylaws and report ideas at the next meeting. Tom asked for suggestions for repeater committee chair. Cap volunteered. Tom nominated Cap for repeater committee chair.

- On a motion by Bruce W6FKD, the board unanimously approved the president's appointment of Cap as repeater committee chair for 2000.

- Don reported he had contacted the Dominican Education Center about reserving our meeting dates for 2000.

- There was discussion of changing the board meeting schedule. The schedule will remain the same for now. Board meetings will be held on the Third Friday of each month at 1830 hours immediately prior to the club meeting. They will be held at the same place, Dominican Hospital Education Center though the meeting room may vary.

WHAT'S THE FREQUENCY, DENNIS?

Ham moviegoers report seeing previews for the new movie Frequency, starring Dennis Quaid and directed by Gregory Hoblit, that's set for an April release. The ARRL was consulted in the interests of accuracy and came up with an unused W2 call sign for the movie's protagonist to use. The movie also recently got a plug on Entertainment Tonight.

Frequency is billed as a sci-fi thriller, but boatanchor fans may believe the movie was made just for them. The gist of it is that a long-dead father and his adult son meet up on the airwaves via ham radio (during the mother of all sunspot cycles), and the son tries to prevent his father's death by altering the past. Both also attempt to prevent a murder. It reportedly winds off into the ozone after that, but we don't want to spoil it for anyone.

According to someone who caught one of the trailers, the son (Quaid) uses an old Heathkit sans cabinet. "I guess the idea is to nail down the point that this is an old radio because you can see all the tubes glowing right out in the open," said Avery Comarow, W3AVE, who caught the preview. Information on Frequency is available at <http://www.frequencymovie.com>. Visit the International Movie Database at <http://us.imdb.com/Title?0186151> for additional details and a look at the trailer.— thanks to Mark G Ewell, KC5IZN and Avery Comarow, W3AVE (via John Dilks, K2TQN)

- Tom asked for greater member participation in the affairs of the club and more ideas for increasing membership.

- Bruce W6FKD submitted his resignation from the board, as he will be moving out of the area soon. The board accepted Bruce's resignation and thanked him for his long service to the club. A replacement board member will be appointed by the board at their next meeting.

- The meeting was adjourned at 1925 hours PST.

SCCARC Officers - 2000

President	Tom Johnson	KQ6DV	464-3120
Vice President	Don Hennese	KF6KGO	438-1486
Secretary	Cap Pennell	KE6AFE	429-1290
Treasurer	Allen Fugelseth	WB6RWU	475-8846
Board	Bruce Hawkins	AC6DN	
	Bruce Wade	W6FKD	423-0575
	Bill Walters	W6PAD	688-0557
	Lauren Hardy	KC6TPW	462-0247
	Ron Skelton	W6WO	
K6BJ Trustee	Royce Krilanovich	AC6Z	475-4798

MONTEREY BAY ACTIVITY

K6BJ / KI6EH (Linked) • SCCARC Net Monday 7:30 PM 146.79- /147.945-
146.79- /147.945- • SC ARES Net Monday 8:30 PM 146.835-
(PL 94.8) • Watsonville ARES Net Thursday 8:30 PM 147.945-

K6BJ / UHF
440.925 (PL 123)

K6LY (Monterey) • Monterey ARES Net Wednesday 7:30 PM
146.97- (PL 94.8) • NPSARC Net Wednesday 8:00 PM
444.700+ (PL 123) • Monterey Bay Traffic Net Nightly 9:00 PM
(Linked) • Monterey Bay Swap Net Wednesday 8:15 PM
• Newslite (Ham News) Broadcast Wednesday 8:30 PM

N6IYA (Felton) • SLVRC Net Thursday 7:30 PM
146.745- (PL 94.8) • SLV ARES Net Monday 7:30 PM
• Newslite (Ham News) Broadcast Sunday 9:00 PM

6 Meter Local Net 52.8 MHz (PL-114.8) Sunday 8:00 PM
SCCARC 10 Meter Net 28.308 MHz USB Monday 7:00 PM
Mont. Bay Chapter 191 QCWA :Tuesday, 7:30PM, AA6T repeater, 146.700-(NO PL).

SCCARC CALENDAR OF EVENTS

SCCARC Board Meeting 6:30	Friday	Feb. 18
SCCARC Meeting	Friday	Feb. 18
SHORT SKIP deadline	Monday	Feb. 28
Santa Cruz ARES	Tuesday	Mar.14
SCCARC Meeting	Friday	Mar. 17

Visit the SCCARC Website at

- www.fireclay.com/k6bj

NEW! – CLUB E-MAIL: k6bj@arrl.net MONTHLY MEETINGS

The SCCARC Meets at 7:30 PM, on the THIRD FRIDAY of the each month (except December). Meeting are in the Education Building, Dominican Hospital, 1515 Soquel Drive, Santa Cruz.

NET CONTROL SCHEDULE (Subject to Change)

2/14	Phil KE6UWH
2/21	Ron W6WO
2/28	Dave W6TUW
3/6	Tom K6TG
3/13	Allen WB6RWU



SANTA CRUZ COUNTY AMATEUR RADIO CLUB
P.O. BOX 238
SANTA CRUZ, CA 95061-0238

Forwarding and Address Correction Requested

Next Meeting Feb. 18

FIRST CLASS