

The READOUT

Year 15 Number 12 December 1993

The Official Newsletter of the Stanislaus Amateur Radio Association



May every happiness be yours
at this Holiday Season
and throughout the New Year.

In This Issue

Tule Fog	2
Technical Report	2
ARRL Report	3
W6DPD Unseated	3
Party Line	4
FCC News	4
From Desk of N6ZUC	5
Technical Tip	6
License Renewal Info	9
Bootlegger Arrested	9
ARRL VE Sessions	9
SARA Minutes	10
Tri-Co VE Info	11
Calendar	12

Ham summons help using Sheriff's Frequency FCC takes enforcement action

Ed. Note: The following articles appeared in the San Diego Union Tribune Newspaper and were forwarded to us by Tim, N6ZUC, who lives in Escondido. Tim reports this case has upset the Amateur community in San Diego County, many of whom have written to the FCC Engineer-in-charge of the San Diego office. Many of the letters contain references to section §97.403 of the Amateur Rules regarding emergency transmissions. Our thanks to the Union-Tribune for permission to reprint their articles in their entirety.

By Pat Flynn, Staff Writer

It was, everyone acknowledged, the act of a good Samaritan. Still, authori-

ties confiscated Chris Boyer's portable ham radio last month after he used it to obtain emergency medical help for a seriously injured friend.

"I couldn't believe it," Boyer said. "You don't expect bad things to come from good intentions." Boyer's problem arose because he summoned help on a Sheriff's Department radio frequency that he is not licensed to use.

"Under the regulatory scheme. . . this kind of operation by persons who are not authorized is strictly prohibited," said William Grigsby, engineer in charge of the Federal Communications Commission's San Diego office.

"We can't have a situation where everyone who wants to have a transmitter

on the police or sheriff's frequency can," he said. "If this continues, we're going to have chaos for the law enforcement system."

Boyer contends, however, that he made a responsible decision to use the sheriff's frequency only after exhausting all other options for getting help for his friend, who suffered head and facial injuries in a fall while mountain biking on a remote trail near Pine Valley in San Diego County.

"I face-planted really hard," said Craig Bosworth, 26, Boyer's friend. "It was rocky, a jagged edge. I knew pretty much right away that I'd broken my nose, and it was obvious that I was

See "Sheriff Frequency" page 7

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SARA VHF Net

Thursdays @ 8 P.M.
(Except Holidays)

2 meters 145.39 MHz WD6EJF
220 Band 224.14 MHz WD6EJF
10 Meters 28,440 kHz USB

Tuesdays at 730 P.M.

ARES Net Wednesday 800 P.M.

Contributions to *The READOUT* are always welcome and may be submitted to the editor by mail or via packet at KD6JZZ-BBS on 144.79 MHz, or directly at my PBBS, WA6ZLO-1 on 144.97 MHz. The deadline for articles is the 15th of the preceding month. Articles regarding religion or politics are not accepted.

Editor

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An ARRL affiliated club !

ARRL membership may be paid through SARA with the club retaining a \$2.00 commission. Please send your ARRL membership form along with your check made payable to SARA. We will deduct the \$2.00 and send a check to the ARRL.

Tule Fog - California's Winter Driving Hazard

Just as wind and dust can be a deadly combination an equally dangerous hazard is the extremely dense fog that forms in many California valleys during the night and morning hours. This type of fog is often referred to as tule fog because of the marshlands where it is most prevalent.

On clear nights...when the ground is moist and winds are calm, the ground cools rapidly. This in turn cools the moist layer of air adjacent to the ground and causes it to condense into fog. As successive layers cool, a deeper layer of fog forms from the ground up. Once it has formed, the air must heat up enough to either evaporate the fog, or lift it above the surface so that visibilities improve.

The visibility in tule fog is often less than an eighth of a mile-660 feet, and can be as little as ten feet or less. Because it forms in the coldest air, the areas where it is densest are in the bottoms of valleys. Persons traveling through these areas can have visibilities of a half mile or

more, then drop into a depression where they can see only a few feet. It is situations like this that can lead to deadly multi-car accidents where one car follows another into a fog bank.

The following driving tips are offered for persons driving through the fog this winter.

1. Drive with lights on low beam. High beams will only be reflected back off the fog and actually impair your visibility more.
2. Reduce your speed.
3. Turn your radios off and crack you window a bit and listen for traffic you cannot see.
4. Use wipers and defrosters as necessary for maximum vision.
5. Be patient. Do not pass lines of traffic.
6. Do not stop on a freeway or heavily traveled road. If your car stalls, becomes disabled or you are involved in an accident, move away from the vehicle and get off the roadway as soon as possible to avoid personal injury.
7. Consider postponing your trip until the fog clears. Usually by late morning and during the afternoon visibilities are much better. Courtesy Nat. Wx Service



Technical Report

By LeRoy, NV6S

Hello to all, The best news on the technical front is that I have located at least part of the interference problems with the two meter repeater on Mt. Oso. There is a paging service on the frequency of 72.4 mhz. The second harmonic of their fundamental frequency is 144.8 Mhz which is only 10 khz above our input. We have fought this problem in the past and I have some ideas that I will try as soon as I can get back up the hill with proper equipment.

The SARA digital node died earlier this month and I made a trip up the hill and managed to get it running again. Brad, KC6TDH, was up later and discovered some further problems which he solved. We are operating with a very marginal power supply system at that site. We are using a ten amp supply for a radio

that draws more current than ten amps in the transmit mode. In addition to that we are also powering the ten meter digi from the same supply. The only thing that keeps it running is a battery that is in line with all. The problem is that if we have heavy draws for a period of time the battery starts to go down and ultimately the system goes down. After the first of the year when the club has a bit more money I would like us to buy a 35 or 50 amp supply for that site.

The club's O2AT hand-held is here in the shack after some malfunctions. I think I have the problem located but want to let it run on the bench for a while before I commit myself to that. If I am right it will only take a battery pack to correct the situation with that rig. I would like to thank the club for patience and thank the people who have helped with the technical chores. 73, LeRoy



ARRL Pacific Division Director's Report

By, Charles McConnell, W6DPD

December 1993 by Charles P. McConnell, W6DPD, Director ARRL Pacific Division. 1658 W. Mesa Ave. Fresno, CA 93711-1944. 209-431-2038. Packet W6DPD@ N6ZGY.# CENCA. CA. USA. NA

Do you want to become a Ham? Call 1-800-32NEWHAM (1 -800-326-3942). You will get how to information, a list of clubs, a list of instructors, and a list of volunteer examiners in your zip code area.

Do you want to take an Amateur Exam? Call the ARRL VEC hot line, 408-984-8353 for exam information.

Scholarships: There are many scholarships available to licensed Amateurs. The ARRL Foundation, The Dayton Amateur Radio Association, and the Foundation for Amateur Radio will be announcing their dates for applications for their 1994 scholarships. Watch the Amateur press for this information.

Legislative Update: As of October 22, 1993, there are 106 cosponsors of H. J. Res. 199 and 17 cosponsors of S. J. Res. 90. There are 18 cosponsors of the Amateur Volunteer Service Act, H. R. 2623. Keep writing letters on these pieces of legislation.

FCC Proposes Instant License: The FCC has released a Notice of Proposed Rulemaking P.R. Docket 93-267 which proposes an instant temporary license for those who pass their first Amateur license exam. This temporary license would be valid for up to 120 days or until a permanent license is received from FCC. The temporary call sign would be WZ, a number, the applicants initials, and a temporary license class designator. For example, John Doe of Quincy, Illinois passes a General class exam. His temporary call sign would be WZ9JZD/AG. A temporary license would not be available to a prior Amateur Service licensee whose license was revoked, suspended for less than the balance of the license term and the suspension still in effect, suspended for the balance of license term and relicensing has not taken place or surren-

dered for cancellation following notice of revocation, suspension, or monetary forfeiture proceedings. The person is not the subject of a cease and desist order that relates to Amateur service operation which is still in effect. The FCC believes this temporary license program would eliminate 11,000 calls annually to inquire about pending licenses. Comments on P.R. Docket 93-267 are due on January 10, 1994 and Reply Comments are due February 10, 1994. You can get a copy of P.R. Docket 93-267 by sending a business size SASE to the RID at ARRL HQ.

AMATEUR NUMBERS FOR 1993: At the end of fiscal 1993 (Sept. 30, 1993) there were 625,988 Amateurs compared to 580,806 in Sept. 1992. The number of new Amateurs was down 7.4% from the previous year, mostly in the issuance of new Novice licensees, but the number of technician licenses increased by 18.5%. On September 30th, the number of ARRL members was 169,236.

Hiram Percy Maxim Memorial Award: If you know an Amateur under the age of 20 who qualifies for the Hiram Percy Maxim Award, please send to ARRL for information on nominations. Send the nomination to your Section Manager. See page 8 of any QST for the address. There are many young Amateurs who would qualify for nomination, but few are nominated, usually one or two per year nationally.

COMING EVENTS

1. LIVERMORE SWAP MEET. 1st Sun day of each month at Las Positas College in Livermore, CA. 7 AM to Noon, all year. Contact KC6QZK for information.
2. ARRL 160 Meter Contest December 3-5, 1993
3. ARRL 1Ø Meter Contest December 11-12, 1993.
4. January 15, 1994. WINTERFEST, National Guard Armory on the campus of Monterey Peninsula College. Monterey CA. For information contact Doug McKinney, KC3RL, 408-663-6117.

5. ARRL International DX Contest CW February 19-20, 1994.
6. ARRL International DX Contest Phone March 5-6, 1994
7. INTERNATIONAL DX CONVENTION. April 15-17, 1994. Holiday Inn at Visalia CA.
8. Fresno Hamfest. May 7-8, 1994 Riverland Park at Kingsburg CA. Contact Pat Fennacy, W6YEP, at 209-222-3105 for information.
9. ARRL Field Day June 25-26, 1994

W6DPD unseated as ARRL Pacific Division Director

Long time ARRL Pacific Division official, Charles McConnell, W6DPD, of Fresno, was defeated in his bid for reelection as the Pacific Division Director by Brad Wyatt, K6WR, the current Vice Director.

The ARRL committee of tellers for the election of Directors and Vice Directors for the 1994 through 1995 term met at ARRL headquarters November 19 to count ballots. Brad Wyatt, K6WR, of San Jose easily unseated McConnell with 2714 votes to McConnell's 1354.

The Vice Director's position, formerly held by Wyatt, was won by Jim Maxwell, W6CF, also of the Bay Area. He garnered 2372 votes. His challengers Jettie Hill, W6RFF was second with 849 votes, followed by Jerry Boyd, KG6LF, who picked up 844 votes.

McConnell has been a League official for several years and was the Section manager for several years before being elected as Director. He served the League faithfully for all those years and was a regular contributor to the newsletter and the SARA Thursday night net.

Good luck to the new officers.



What's new department: The Party Line now has a contributing reporter. Mark, WB6BJN, has agreed to keep an ear on the *SARA* repeaters and report on the everyday activities that unfold. I'm glad to have him aboard and look forward to working with him. As far as news this month, Mark report's it's been a pretty dull on the repeaters, which is OK with him, as he has been pretty busy with his new job. He is working as a telemarketer at the Modesto office of New York Life and does follow up on customer inquiries. When he has some free time, he is playing with his near new HF rig, a FT-757GX.

Congratulations to *SARA* members Dave Grout, N6YHZ and Merle Maxwell, N6YLN, both of whom have upgraded to Advanced Class operators.

In the getting better department, Jim, KE6AIS, is doing much better ask he is recovers from asthma and bronchitis.

Leroy, NV6S ran the Thursday night net on the 11th of November, and Don, N6KMC, did it on the 18th. Both of these guys did a great job. Would you like to volunteer your time?

Liz, GIW, is following in her dad's (Bob, N6OCS) footsteps and driving a Dial A Ride Van. I understand she is a better driver than the old man. Bob, disputes this, but one thing for sure, Liz is much better looking than the old man. HI HI.

Have you been listening to any shortwave broadcasts lately? There is always something of interest there. Sandwiched between our bands are at least ten "International Broadcast Bands". The most important ones start at 4.7 MHz, 5.8 mhz., 7.0 MHz., (we share this one with the broadcasters) 9.4 Mhz., 11.5 Mhz.,

13.5 Mhz., 15.0 MHz., 17.6 Mhz. and 21.45 Mhz. These frequencies are approximate. A shortwave broadcaster may set up shop almost anywhere between 4 and 30 Mhz. This varies a lot by season and solar cycle, but a rough rule of thumb is to assume that the bands below 11.5 Mhz. are useful at night, and those above the 11.5 MHz.-12.2 MHz. band (25 meters) rule the day. 25 meters is a most unpredictable band that can open up almost any time.

What's there to listen to? 60 meters (4.7-5.2 Mhz.) is used in Latin America for transmissions directed to internal audiences, a sort of supplement to medium wave (AM) broadcasting. One needs an outdoor aerial really to exploit this band. I understand just enough Spanish to enjoy an occasional trip to 60 meters. The others are filled with International Broadcasters.

The BBC, and Radio Netherlands do excellent news, to name two, and both stations use relays in the Caribbean so their signals blast in to North America on the cheapest of radios. Shortwave BC receivers start at \$50 and up, really up, in some cases. The best ones rival amateur equipment in complexity and performance. 7.0-7.5 Mhz. (41 meters to us SWLs) is a bizarre band! It's home to any number of oddballs and lunatics, all with their stories to tell. It's special feature is that on weekends around 2000 GMT and on, one MAY hear, on or around 7415 KHz, one or more unlicensed pirate stations.

These stations are usually flea power, but some get out well. I bagged one on an antique portable in a motel room in Monterey once. Their programming can be anything from the tasteless to the offensive, to the rather amusing. For obvious reasons, their transmission schedules tend to be erratic, and their broadcasts short. Some of these stations do attempt to QSL, usually via "a maildrop", an address or P.O. Box, usually located nowhere near the station. This is the barest of introductions to this hobby, which is much like ours.

A tip for owners of little portable Shortwave Radios: A 20 or 30 foot piece of wire, strung around your room or tossed out the window into a tree, will do wonders for these little radios. Radio Shack sells such an antenna that clips to the portable's telescoping aerial, or one can do what my grandfather does, use or-

dinary hookup wire, strip a bit of insulation from one end, pull up the telescoping aerial a bit, wrap the wire around it, and secure it with a clothespin.

One of my tricks that is safe with a BATTERY operated radio is to clip lead the telescoping aerial to a lamp with metallic trim that touches the light bulb socket. This bit sort of turns the house wiring into an enormous loosely coupled aerial, but can cause hum on some radios.

As grandpa would say, try "shortwavin'" and "go fishin'" sometime. Hey, after all, it's radio and radio is what we amateurs are about! In the last few years, SW broadcasting has under gone a tremendous revival with more stations on the air than ever, and with better, cheaper radios to listen to them on.

Resignation department: I am no longer the Net Coordinator having resigned Halloween weekend for personal reasons. Hopefully in the future I will be able to renew my efforts in that area.

If you have any news to report, please get in touch with Mark or myself. We both have recorders on our phones, so if we are not in when you call, as the messages say, "please leave use a message." Thanks and, Vy 73, Bart

FCC drops station location requirement

Effective November 15, 1993, the FCC will no longer require that a station location be shown on Amateur license applications, nor on applications for reciprocal operating permits. The FCC said that because portable and mobile equipment is now so often used by Amateurs, a station's location often changes, sometimes even daily. The FCC also said that deleting the station location requirement would expedite the processing of license applications. They said that since this rule amendment is not likely to be controversial and that it is a "nonsubstantive" change in licensing procedures, no notice and comment period was needed.

The amended FCC rule, §97.21 will now read: "each application for an amateur service license and each application for a reciprocal permit for alien amateur licensee must show a mailing address in an area where the amateur service is regulated by the FCC. The mailing address must be one where the licensee can receive mail delivery by the United States Postal Service."

FROM THE DESK OF

Tim Low, N6ZUC

Last month began a thought or two on mobile operation. More specifically on problems associated with the interaction between vehicle and RF source. I left off discussing noise, sources of, and cures. This month we'll continue by looking for noise generators other than the typical sources, ignition and alternator.

Noise in a mobile installation can come in many forms, and from many sources. Some are easy to diagnose and cure, such as the previously discussed ignition and alternator, and yet others require a little digging to find, and an application of some tried and true techniques for their elimination. Look for sources such as electric fuel pumps, fuel injectors, the cars "brain", poor grounding, and even your own RF.

Let's start out talking a little about grounding. Used to be that cars were all metal in fabrication, and therefore provided a pretty solid ground. Today however, more and more cars, at least in part, are being made from some type of plastics or other. Since all the metal parts of the vehicle are no longer physically tied together, you don't have much of a ground to work with. This lack of a continuous solid ground, although it isn't going to cause noise, it also isn't going to act as a shield against generated noise. Indeed it can actually help to radiate it. The best thing you can do is to take an ohmmeter and check the major metal pieces of your car to the negative terminal of your battery. Make sure that you have a low resistance path. If not, use some strap to get everything tied together.

Two of the other most common sources of noise now are the fuel injection system, and the computer command. They both can sound the same, so some investigation is needed to track it down.

I'll just bet you have the necessary test gear close at hand. For noise that shows up at VHF frequencies, use your HT to track it down. take your antenna off, and start sweeping over your engine compartment and beneath the dash. This assumes interference on a specific frequency, or group of frequencies. Without the antenna, your HT hasn't much sensitivity, and usually you'll have to get right on top of the noise before it trips the receiver. Start out with the squelch completely closed. If you don't find it, lighten up the squelch a bit, and try again.

For noise ripping up your HF rig, try a small AM transistor radio for your snooper. Your kids CB walkie talkies might just be up to the task too. If the noise is frequency specific in the HF band, you may need a small all band short wave receiver to find it.

Once located, the cure is much the same as curing any RF interference. If for instance the noise is being generated by the fuel injectors, a small set of split ferrites over the injector wires will most times quiet things right down. A friend here in Escondido had that trouble with his Mercedes, and strategic placement of some beads picked up at a swap meet attenuated the problem to a point where it was hardly noticeable. This from being so bad as not to be able to hear the local repeater in anything but strong signal areas.

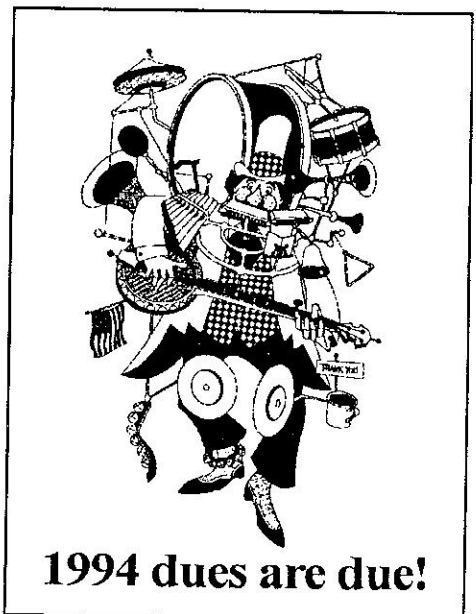
I had the problem with the clock oscillator in my computer command putting out a strong signal on my favorite 2 meter frequency of 146.73 Mhz. Two things were needed to cure the problem in this case. Number one I found that the unit was not properly bonded to the cars chassis. This is why I brought this up earlier. A length of copper braid from the case to a bolt attached to the frame reduced the

noise considerably. Still it persisted because the wires running into and out of the box weren't bypassed, allowing them to become radiating antennas. Again a ferrite or two took care of the situation.

Even your own RF can be a source of noise in your car, much the same as in your shack. Typically this shows up as a grunge sound in your audio. Sometimes all that's necessary is to relocate your antenna on the vehicle not. You might need to get into the microphone and add some capacitor bypassing. Again, make sure that your antenna and rig are tied to ground.

That's about it in a nutshell as they say. Hope this gave you some ideas to solve noise problems in your own mobile station. I also want to wish you a happy holiday season, and hope that Santa brings you the new rig of your dreams.

Merry Christmas and a Happy New year. Questions, answers, suggestions, comments, direct them to me in care of The READOUT, or via packet to N6ZUC @ KC6NZN. # SOCA. CA. USA. NA. 73, Tim.



1994 dues are due!

Technical Tip

Ima Lidd and his Elmer are discussing resistivity of materials and its effect on current flow.

Resistivity and its counterpart, conductivity, are terms used to describe the ability of a material to allow or inhibit the flow of current. Some materials are conductors and others are insulators. (There is a third category called semiconductors). Copper, silver and gold are some examples of good conductors and glass, ceramics and plastics are poor ones.

Let's look at why a substance is a good or poor conductor. All materials are made up of atoms. These atoms differ from each other in the number of shells of electrons around the center or nucleus of the atom. Additionally, they also vary in the number of electrons in the last or outer shell. The shells closer to the nucleus are full and we only need to consider the outer shell composition since this is the one that enters into electrical conduction. Nature doesn't like a vacuum or a void, so it either strives to fill the outer shell or deplete it thus making the next inner shell a full one. Since electrical current is caused by the flow of electrons from one atom to another, it follows that the material that contains the most free electrons (in its outer shell) will be the best conductor. Conversely, a material containing only a few electrons in its outer shell will also be a good conductor since it will attract electrons in an attempt to fill its outer shell.

If a material is composed of atoms whose outer shell has only a few electrons then nature would like to fill that shell. It does so by attracting electrons from other nearby atoms. This electron movement is called electricity and the material is considered to be a good conductor of electricity. (Electron flow can be enhanced by the application of an electrical charge or voltage). On the other hand, if a material consists of atoms whose outer ring or shell is filled with electrons, it will not attract more. With no electrons moving about there will be no current flowing and this material is an insulator. There is a difference in the degree of resistance or con-

ductivity. Gold, silver and copper are some of the good conductors. Nickel and iron are poor conductors. Variation also occurs in insulators.

A device that resists the flow of electrons is called a resistor. This resistance may be compared to friction. As you know friction causes heating. The heat created by this friction is measured in watts and if it exceeds the wattage rating of the resistor, the resistor will get hot. The resistor will open if this heat is too much.

The resistance is measured in units called ohms. Good conductors like silver and copper have some resistance. The larger the wire the less the resistance will be. Some of the common terms to designate the value of resistors are kilohms and megohms. One kilohm is equal to 1000 ohms and one megohm is equal to one million ohms.

You might wonder why we use resistors since they seem to waste electricity and heat up. Well, we wouldn't use them if we didn't need them. Suppose we had a battery that produced 13.8 volts and we only need 12.0 volts and 2 amperes for a circuit. This would be a good place for one. But how many ohms and watts would we specify? Using $R = V/I$. We need to lose (drop) 1.8 volts across our resistor so we divide 1.8 by 2 and that equals 0.9 ohms. The wattage required is found by using $P = I(\text{square}) \times R$. 2×2 equals 4 times 0.9 ohms equals 3.6 watts. We could use a 1 ohm, 5 watt resistor. In this case it's important to use a value of resistance that is close to the calculated value. The wattage, on the other hand, may be larger than the calculated value. If we didn't have a 5 watt resistor, we could use five 0.2 ohm 1 watt resistors in parallel.

An ohm is defined as that value of resistance that will produce a voltage drop of 1 volt when a current of 1 ampere is flowing through the resistor.

Electrons flow toward the positive terminal. If a resistor is placed in this path a voltage will appear across this resistor as stated above. There will be more electrons where they enter the resistor than there will be where they exit. The excessive electrons will cause that end to be negative and the dearth of electrons will be positive.

Since conductivity is the opposite of resistance, it is measured in mhos. No foolin'!



By William Horn, K3CP

Courtesy of The W3OK Corral
Newsletter, Lehigh Valley, PA.

“Sheriff’s Frequency” from front page

bleeding heavily.” Bosworth said he yelled for help from others in the 10-person biking group strung out along the trail. When Boyer, an insurance agent, using his portable ham radio, tried to reach help on five separate repeaters—automated relay stations for radio signals—but was unable to reach anyone. Boyer said he also tried to reach the repeater for radio station KGB, where he works part-time. Boyer and others in the party also tried to use a cellular phone, but were unable to connect with anyone.

“We were in a ravine, toward the bottom of a canyon,” said Bosworth, also a radio hobbyist. “These radios are line-of-sight.” Boyer said he then rode about half a mile up the trail to a spot that he thought might be better for radio transmission and repeated the process, again unsuccessfully. Boyer then discussed with others in the area, whether he should use the sheriff’s frequency, which he acknowledges he was able to reach only because he had modified his radio to allow him access to frequencies it is illegal for him to use.

As Boyer considered whether to use the frequency, he said, another member of the party told him, “Boyer, get help now.” “I looked and this guy’s bleeding, he’s taken a head trauma,” Boyer said. “I came on, gave my call sign—I wasn’t trying to hide—and said, ‘I’m a radio amateur with emergency traffic.’ The dispatcher said, ‘Go ahead.’ “ Boyer and Bosworth said a sheriff’s deputy in a four-wheel-drive vehicle and fire fighters were dispatched. They examined Bosworth, helped him out of the isolated area and eventually took him by ambulance to an El Cajon hospital emergency room, where he was treated. As it turned out, Bosworth did not have a concussion, serious blood loss or other major problems, although he has had several plastic surgeries and still needs more to repair the damage to his nose and face.

Two weeks after the incident, Boyer received a letter from Bill Kahn, communications coordinator for the Sheriff’s Department, directing Boyer to meet with Kahn and a FCC representative and to bring the radio along. The letter said Boyer’s “intentions were commendable” but added that his actions could subject

him “to heavy fines, forfeiture of equipment and imprisonment.” The letter said Boyer had used a Sheriff’s Department administrative frequency.

In an interview last week, Kahn explained that unlike a tactical frequency, the administrative frequency is not used for dispatching deputies to emergencies or coordinating law enforcement activity in the field. He stressed, however, that in a natural disaster or other catastrophe, the frequency might be needed for emergency purposes.

Like Grigsby, Kahn stressed the importance of keeping unauthorized users off law enforcement airwaves. “The fact is, we just absolutely have to maintain control of our channels,” Kahn said. Kahn also said Boyer got off lucky by simply having to forfeit his radio, which will cost up to \$500 to replace. If he had been prosecuted by the federal government, he could have faced up to one year in jail and a \$100,000 fine. “We could’ve gone the full route,” Kahn said. “We needed to make the point to this guy and any-one else out there that you simply can’t operate on unlicensed channels.

Other officials, however, say Kahn and the FCC may have over-reacted, given the circumstances. “The law is the law and it should be followed,” said county Supervisor Dianne Jacob, who represents the back country. “A large dose of compassion and common sense should’ve been injected into this situation. “The frequencies are protected’ for public-safety emergencies,” Jacob said. “Well, this individual had an emergency. This sounds like a person who is normally a law abiding citizen, very desperate for help. “I can identify with this because I ride horseback in the back country,” she added. “I think anyone in the same circumstances, including myself, would do the same thing.”

Said Bill Bagnell, head the Rural Fire Protection District which serves much of the back country, though not Pine Valley: “It’s necessary that we protect the (frequencies), but given the circumstances, what are you going to do to try to save your buddy’s life? If I were in the same circumstances, I’m not sure I wouldn’t do the same thing. The person who needs the

help doesn’t give a damn which frequency you use.” Bagnell compared the situation to when fire fighters discover a fire in another agency’s jurisdiction. “We stop and put out the fire and worry about whether procedures were violated later,” he said.

At any rate, Bosworth is glad Boyer wasn’t dissuaded from getting him help and is dismayed by the seizure of the radio. “I was very surprised by what happened,” Bosworth said. “It seems like a no-brainer. It seems like a slam-dunk. I really felt like I needed (medical) attention. We tried to get out all the other ways. (Boyer) had the resources available, he got results and he didn’t interfere with any law enforcement activity. “I’m glad Chris did what he did,” Bosworth said.

And what would Boyer, who had to sign an affidavit saying he “voluntarily” gave up his radio and promising not to use unauthorized frequencies again, do if faced with the same situation again? “Do you not try to save someone’s life over fear of legal action!” Boyer asked. ‘You’ve got to do what’s right, don’t you?’

You be the judge!

Here is what section 97.403 of the Amateur Rules says.

§97.403 Safety of life and protection of property.

No provision of these rules prevents the use by an amateur radio station of any means of radiocommunications at its disposal to provide essential communications needs in connection with the immediate safety of human life and immediate protection of property when normal communication systems are not available.

And now for the rest of the story. The latest developments in the saga of “The worm turns!”

To some, it’s pure hypocrisy. To the Sheriff’s Department and the Federal Communications Commission, it’s simply going by the book. At issue is the question of who is allowed to use sheriff’s

See “Sheriff’s Frequency” page 8

Sheriff's Frequency

from page 7

radio frequencies in medical emergencies.

As the San Diego Union-Tribune reported Monday, Amateur radio operator Chris Boyer had his radio confiscated in September by the FCC and the Sheriff's Department as punishment for using it to call for help on a sheriff's frequency after a friend was injured while mountain biking in a remote area.

As it turns out, Bill Kahn, the sheriff's official involved in the radio seizure, used a similar frequency to call ASTREA, the Sheriff's Department helicopter, to rescue him after he fell ill on a pleasure hike in the back country last weekend.

"I think it smacks of an elitist attitude," Boyer said last week after learning of Kahn's rescue. "I see a double standard. My understanding is Mr. Kahn was not on duty. He was not serving the public good (in calling for help) any more than I was."

County Supervisor Dianne Jacob, who criticized the seizure of Boyer's radio originally, was even more dismayed this week to learn that Kahn's use of the frequency was considered acceptable to the Sheriff's Department and the federal agency that punished Boyer.

"It's a double standard and it's wrong" said Jacob, who represents the back country. "If that channel is available to any individual on his own time, whether he is a county employee or not, then that channel should be available (in an emergency) to everyone.

"The standards should be the same," Jacob said. "I'm pleased that it's exposed, and this wrong should be set right."

But Kahn and Jerome Mann, an FCC Field Engineer, pointed out that Kahn is licensed to use the sheriff's frequency and Boyer, indisputably, is not.

"Unless there is respect and order, there is anarchy," said Mann, the FCC official. "If an individual is not licensed to use a frequency (he) must not use that frequency.

"Licensing is the name of the game, and authorization is the name of the game," Mann said.

Boyer, a 27-year-old insurance agent, said he was fully aware that he was using an unauthorized frequency when he radioed for help after his friend, Craig Bosworth, fell on his head and face while biking on a remote trail near Pine Valley (San Diego County) in August.

Boyer said he and others in their 10-person party made the decision to use the frequency only after Boyer twice tried to raise five separate radio repeaters, automated relay stations for radio signals, that he was authorized to use. The party also tried to reach help on a cellular phone, but likewise could not make a connection.

Fearing that his friend might have a serious head injury or internal injuries, Boyer finally was able to get help by calling a sheriff's administrative frequency, that is one not used for emergencies or dispatching deputies.

A deputy and fire fighters were dispatched to aid Bosworth. He eventually was taken to an El Cajon hospital. There he received plastic surgery for his injuries. Though it turned out he did not have life-threatening injuries, he faces further plastic surgery to repair the damage to his face.

Despite Boyer's good intentions and the successful result, he was summoned to a meeting with Kahn and Mann, where he was offered the opportunity to surrender his radio rather than face federal prosecution that could have subjected him to a year in prison and a \$100,000 fine if convicted.

Kahn's emergency also occurred in the back country. On Sunday, he was hiking by himself near Barrett Lake when he suffered an attack of double vision and dizziness. Those symptoms, Kahn said in an interview are the result of a disease he has, myasthenia gravis.

The sheriff's department helicopter was dispatched from Gillespie Field in El Cajon, picked up Kahn and took him to the Barrett Honor Camp. Kahn said his condition improved and he did not require medical treatment.

The cost of operating the helicopter is \$391 per hour including overhead, and salaries, officials said. The flight to aid Kahn took an hour and 20 minutes, and thus cost taxpayers about \$510.

"I can see the irony, if you want to

call it that," Kahn said in an interview. "But in terms of the appropriateness of (Boyer's) use of the radio and my use of the radio, it was a different kind of condition."

Kahn, a civilian employee of the department, and Sgt. Glenn Revell, a department spokesman, noted that as communications coordinator Kahn is on call even when he is not working and is authorized to carry a department radio and use department frequencies.

Boyer also expressed dismay that Kahn, given his medical condition, was hiking alone in the back country.

Boyer said that in his meeting with Kahn and Mann, the men told him that he and his party were foolish for going biking in the remote area where they were when Bosworth was injured without having someone trained in first aid along.

Kahn made the same comments about Boyer and his friends in an interview with the Union-Tribune before Kahn's own medical difficulty.

"I think it's irresponsible of him knowing that he has a disease that causes this to happen on a regular basis, to be out there by himself," Boyer said. Kahn said the symptoms, usually just double vision, strike only about once a year.

Meanwhile, Boyer, who said he originally agreed to surrender the radio in order to avoid the cost of hiring an attorney, is now working with a lawyer to seek return of the device, which would cost up to \$500 to replace.

"It's clear what they've done is a clear violation of his constitutional rights," said Hugh Jaeger, an attorney who said he is a former FCC lawyer.

Jaeger cited two sections of federal communications law that he said indicate that Boyer was legally justified in radioing for help when he did.

"No provision of these rules prevents the use by an amateur station of any means of radio communication at its disposal to provide essential communication needs in connection with the immediate safety of human life and immediate protection of property when normal communications systems are not available," one of the sections (97.403) reads.

Is it time to renew your Amateur License?

Here is something that not many of us have thought about! The FCC began mailing ten year term licenses in early 1984. They also dropped the grace period from five to two years at the same time. All licenses issued or renewed during the period of January 1984 to December 1988 were ten year term tickets. Thus there were no renewals between January 1989 and December 1993.

Renewals of the five year license simply stopped in 1989. The reason for no renewals during this period was that the ten year term licenses issued between January 1984 and December 1988 still had another five years to run before they had to be renewed (or be dropped as inactive status by the FCC.) Amateurs who might have dropped out of ham radio by not renewing their five year license, got an "automatic extension" for another five years.

A review of the FCC licensing records between January 1984 and December 1988 show that on average, 550 amateurs dropped out of ham radio monthly and were purged from the active database. Does this mean that the amateur census could drop by far more beginning in January 1994 since there have been no records purged for five years? It probably does.

Thus, the big question for 1994, is what effect will the ten year term license have on renewals which will be starting up in January 1994. About 4,400 amateurs should be renewing their license every month during 1994. Will they? And how many have dropped out of ham radio during the past ten years? How many that wish to renew simply will forget? The FCC had planned to issue a new 'mail back' renewal card beginning in January when a new computer was due to come on-line at Gettysburg. It now looks like this new procedure will not begin until

later on since the new computer project is behind schedule. In any event, it appears that we could easily have a period of far less growth. Here is a listing of the number of new and renewed licenses during the five year period from 1984 to 1989 which should be renewed from 1994 to 1999. We also show the number of licensees that dropped out of ham radio during this period. Would this same number of amateurs have dropped ham radio during the period from 1989 to 1993 if they had been issued a five year ticket between 1984 and 1989 ...instead of a ten year term? New and renewal operator licenses issued between 1984 and 1989 and number of licenses purged:

Lic's	1984*	1985*	1986*	1987*	1988	1989*
New	18261	19015	21046	26517	22181	24305
Renew	34031	35686	36818	40327	35835	5619
Purged	6685	16855	17681	15336	12865	15922

(*—All figures are calendar rather than FCC Fiscal Year basis)

Courtesy W5YI Report

ARRL V.E. Sessions in Northern Calif.

This is a listing of the scheduled ARRL Volunteer Examiner test sessions in the Pacific Division except Hawaii. To take a test you must show two means of ID; have the original of your license and a copy of it, if you are licensed; have the original of any csce to prove your passing a test before any VE group. Fee is \$5.60 except for novices.

Cupertino	
Dec. 4 & 18	408-243-8349
Elmira	
Jan 29 Mar 26-	707-446-8376
Fresno	
Dec 27 Jan 29-	209-227-3684
Garberville	
December 1	707-247-3452
Livermore	
Jan 11 Feb 22	510-833-1661

Modesto	
December 11-	209-883-2968
Morro bay	
Dec 6 Dec 7	805-528-0703
Novato	
Dec. 4 Mar 5 Jun 4	415-883-9789
Oakhurst	
December 11	209-683-8772
Petaluma	
December 9	707-762-9414
Reno, Nv	
December 18	702-826-0329
Sacramento	
Nov 20 Dec 18-	916-925-0159
Stockton	
December 18	209-952-5996
Vacaville	
February 26	707-446-8376
Visalia	
December 4	209-734-9516
Yuba City	
Jan. 26 Mar. 9	916-673-0868

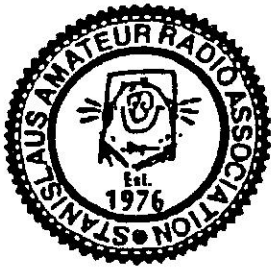
Good Luck!

Madera Bootlegger Apprehended

After months of investigation, a Madera, CA man, operating illegally as W6DEL, was apprehended by the FCC and local authorities for numerous violations of the law, including "operating without a license, the use of foul and abusive language and deliberate interference to many repeaters and simplex frequencies.

When he answered the door he told the FCC that they had no jurisdiction over him because he had no license and refused to allow them in. Local authorities, who assisted the FCC, had secured a Search Warrant and promptly served it on the man. Entry was made and his equipment was seized. Several members of Fresno ARC helped locate the bootlegger whose full name was not available at press time.

Courtesy The Skip, Fresno ARC.



SARA Minutes

By Ernie Rader, K6UVI, Secretary

The regular monthly SARA meeting was called to order by President Sandy, KC6TBK at 7:31 PM on November 16th, 1993. Nineteen members and guests signed in as introductions were made. Treasurer's report follows:

October Activity:

Opening Balance: - \$1,579.85
Income.....\$97.00
Expenses ----- \$230.26
Balance on 11/16- \$1,446.59

It was moved and seconded to accept the treasurer's report. It was also moved and seconded to accept the minutes of the previous meeting as printed in **The READOUT**.

The Secretary read a letter sent by The Naval Postgraduate School Amateur Radio Club in Monterey announcing their Winterfest Hamfest coming up in January. He further reported that since Bart, KF6AX, no longer would be continuing as net manager, LeRoy, NV6S would be taking over those duties. His plan is already

in place and working well.

LeRoy reported that the club's portable might need some repair, and he'd look into it. Also, the power supply for the K-node and the 10 meter digi needs help. Brad said that the 35 amp. power supply should take care of that duty nicely. Also, the source of the intermod into the two meter machine has been located and again it's the second harmonic of a paging system close to our repeater location. A possible solution might be to tune the receiver down 1 kc. or so to see if that would clear things up.

VP Liz reported that several programs are being planned for next year, and there was no Old Business to be discussed.

Under New Business, two members reported not having received "welcome" and "autopatch" letters, and the Secretary was instructed to make sure those letters were sent.

The new slate of prospective club officers was presented, and Liz, KD6GIW

was nominated for President, Mark, WB6BJN was nominated for Vice President, Debbie, KC6YTE was nominated for Secretary, and Bob, KC6TVE was nominated for Treasurer. Next meeting, nominations will be opened to the floor, and club officers will be elected.

The meeting was closed at 7:47. Respectfully submitted, Ernie, K6UVI, Secretary.

Roster updates:

New members, paid through 1994

Rex Mc Bride KD6VEA
3108 Knoles Court
Modesto, CA., 95350
577-3514 Novice

Robert Booth K0GVY
6397 Cressey Way
Atwater, CA., 95301
394-2491 General

**STOP!
LOOK!
LISTEN!**

Program for
January 18, 1994
SARA meeting -
The finer points of
Transmitter Hunting
with Brad, KC6TDH
Plan to be there
730 PM

Tri County VE News & Schedule

(NOTE — CHANGE IN LOCATION)
QST QST QST — The Tri-County VE Team is sponsoring an amateur examination session on Saturday, December 11, 1993 at 9:00 a.m. at Prescott Senior Elementary School on Rumble Avenue in Modesto, CA. All classes of license - Novice to Extra - will be administered.

Test fee is \$5.60 (except Novice). Bring the original and a photocopy of your ham ticket and any CSCEs in your possession. 610s provided by the team. Two test rooms to minimize waiting.

All materials returned to the ARRL/VEC via Air Express to ensure prompt issuance of licenses. Take Hwy 99 to Standiford. East on Standiford to Conant. South on Conant to Rumble. East on Rumble one block to the school. For additional informa-

tion, contact Chet W6XK @ KD6JZZ or (209) 883-2968. Good luck and vy 73, Chet W6XK. Upcoming sessions:

1/8/94 9:00 am. Turlock W6XK .. (209) 883-2968
2/12/94 ... 9:00 am. Merced KI6PR .. (209) 383-2166
3/12/94 ... 9:00 am. Modesto ... W6XK .. (209) 883-2968
5/14/94 ... 9:00 am. Turlock W6XK .. (209) 883-2968
6/11/94 ... 9:00 am. Merced KI6PR ... (209) 383-2166
9/10/94 ... 9:00 am. Modesto ... W6XK .. (209) 883-2968
10/8/94 ... 9:00 am. Merced KI6PR ... (209) 383-2166
12/10/94 . 9:00 am. Modesto .. W6XK .. (209) 883-2968

All sessions accept walk-ins (pre-registration is not required) and will offer examinations for all classes of license. The test fee for 1994 is \$5.75 (except Novice) and all test materials are returned to the ARRL/VEC by Air Express. Phone the "contact person" for specific details regarding location or changes.

Time To Renew Your SARA Membership

The **SARA** membership year runs from January 1st through December 31st of each year. The dues rates are reviewed each year and adjusted if necessary based on the general financial health of the club treasury and anticipated expenses vs. the estimated number of members. As we have often stated, running a club is just like running a small business. We must have the income to pay our bills. The biggest part of your dues goes to support of this newsletter followed by liability insurance, equipment insurance and maintenance. You will not be billed separately for membership dues. Your only notice will appear here in **The READOUT**. If you prepaid for 1994 please disregard this notice.

Please examine the membership dues schedule appearing on this page and then prepare your check or money order and **ALONG WITH THE MEMBERSHIP FORM** below, mail them to the club's post office box listed below. Make your checks or money orders payable to **SARA**. Remember to include the completed membership form with your payment. Thank You for your support!

Please remember if you move to let the club know ahead of the move. The **READOUT** is bulk mailed and the Post Office will not forward bulk mail regardless if you left a forwarding address.

1994 Membership Dues Schedule

Full Membership	23.00
Associate (Unlicensed Applicant)	12.00
Student (Upto Sophomore in college)	12.00
Family (Head of Household)	23.00
Next two members living in same home	12.00 ea
Out of Area	11.00

(More than 150 miles from Modesto)



1994 Stanislaus Amateur Radio Association Inc.

P.O. Box 4601, Modesto, Ca. 95352

Membership Application

Renewal New Membership Date _____

Name _____ Call _____

Address _____ Member of ARRL? _____

City _____ State _____ Zip Code _____ Home Phone _____

Business Address _____ Bus. Phone _____

Occupation _____

Class of License _____ Year first licensed? _____

Make checks or money orders payable to **SARA** and mail to **SARA PO Box 4601, Modesto, CA. 95352**



Calendar

Dec 7 Livermore Swap Meet 7- Noon
 Dec 11 VE Test in Modesto 900 AM
 Dec 21 SARA Monthly Meeting 730 PM
 Election of 1994 officers
 Jan 15 WINTERFEST All Day
 Monterey National Guard Armory
 Jan 18 SARA Monthly Meeting 730 PM
 Program: Brad KC6TDH on Transmitting Hunting
 Feb 15 SARA Monthly Meeting 730 PM
 Apr 19 SARA Monthly Meeting 730 PM
 May 7-8 Fresno Hamfest All Day
 Riverland Park at Kingsburg
 June 25-26 ARRL Field Day 24 hours

SARA meets the third Tuesday of each month (except holidays) at the Stanislaus County Administration Building 11th and H Streets in downtown Modesto. The meetings are held in the lower-level conference room at 730 pm. Visitors and interested persons are most welcome to attend. SARA is an ARRL affiliated club and is also affiliated with the Stanislaus County and City of Modesto RACES\ARES programs.

The READOUT is mailed with a bulk mailing permit. Please notify us if you move as the Post Office will not forward bulk mail regardless if you left a forwarding address.

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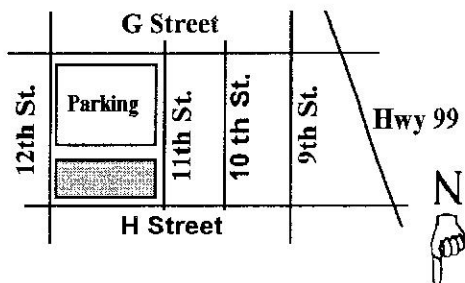
SARA repeaters on Mt. Oso at 3,300 feet- 145.39(-) MHz PL 136.5 Hz or * 5 to override the PL. 224.14 (-) MHz, 440.225 (+) MHz PL 136.5 Hz . KA-Node Digipeater 144.91 MHz. Ten Meter Digipeater 28,440 kHz

Stanislaus Amateur Radio Association, Inc.
 P. O. Box 4601
 Modesto, CA. 95352



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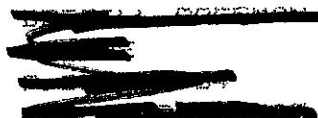


SARA Meeting Location
 1100 H Street, Modesto, CA
 Lower Level Conference Room.
 730 pm third Tuesday of each month.



TO:

1993



Next SARA Meeting is December 21, 1993 at 730 pm & You're Invited!