



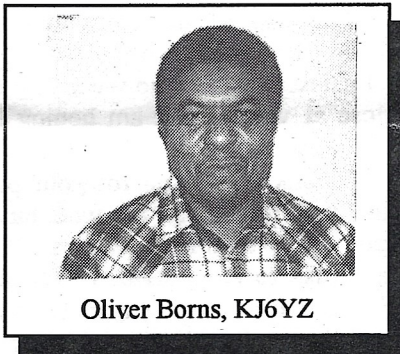
# The READOUT

Year 16 Number 9 September 1994

The official newsletter of the Stanislaus Amateur Radio Association

## Oliver Borns, KJ6YZ, Silent Key at 63

Oliver Borns, KJ6YZ, President of SARA in 1991, passed away suddenly of a massive heart attack August 6, 1994. He was 63 years old.



Oliver Borns, KJ6YZ

Oliver was first elected as our Vice President in 1990 and elected President in 1991.

Oliver was born in Morvin, Alabama in 1930. He served 24 years in the U.S. Air Force from 1949-1974. He served in Korea, Africa, Philippine Islands, Newfoundland and Vietnam. He was awarded the Air Force Accomodation Medal, the Purple Heart twice, and several other awards. He retired with the rank of Technical Sergeant.

Oliver was well liked by all those that knew him and his passing will leave a void with his many friends and family.

He leaves his wife Lucille, two sons, a daughter and a brother and sister.

Burial was in the San Joaquin Valley National Cemetary at Santa Nella, CA. Our condolences to h is family.

## Publisher of 73 Magazine in deep financial trouble

**The** evidence of severe financial problems is piling up at the offices of Wayne Green, Inc., Peterborough, NH. Green, W2NSD/1, publisher of 73 Magazine (now in its 33rd year) and Radio Fun, a tabloid for new hams.

In April, Green sent out a letter asking creditors to work with him while he was "...solving the problems..." His version was that it was the "...money losing [music] CD manufacturing division that caused the problem."

Green's company has sustained a growing loss in employees as well through terminations and layoffs. Reportedly he had a high of about 70 employees in 1990. That has dwindled to some 15 employees today.

Fiscal difficulties at WGI have been building since January 1992 when some 25 people were laid off.

In the latter part of April 1974, Green was convicted of filing false and fraudulent income tax returns. His two 5 Year prison sentences were suspended and Green was placed on probation for a period of three years. He also was ordered to pay a total fine of \$20,000 plus substantial court costs.

The current IRS problem surfaced at WGI several months ago when IRS auditors were seen coming and going over the course of many weeks. It became common knowledge among staff that Green was having deep difficulties with the IRS.

It now appears that Wayne Green owes \$250,000 in IRS tax arrears going back a little over one year. In addition, his accounts payable is reportedly bulging by more than \$300,000 ...so that puts him in debt to the tune of more than half a million dollars.

Supposedly, Green was given an extension to obtain funds to pay a significant amount up front of what he owed the IRS. Reportedly, he got another extension when he failed to meet the first deadline. The second deadline we understand is was August 31st. The IRS conceivably could close down everything if Green defaults again. It appears that all Wayne has left is 73 Magazine and Radio Fun plus a warehouse bursting at the seams full of unsold music CD's.

Our understanding is that 73 Magazine is indeed profitable, but Radio Fun is only marginally break even. The big question is, of course, what is now going to happen to 73 Magazine? It is very questionable whether the publication can survive in its present state considering its present financial and personnel condition. W5YI Report has learned that investors are looking into the possibility of buying-out 73 magazine. *W5YI Report*

### In this issue

Technical report .....	2
SARA Minutes .....	2
The Silent Killer .....	3
SARA Fund Raiser .....	6
TS850 For Sale .....	6
From the Desk of N6ZUC .....	7
New FCC computer .....	8
From the Mailbox .....	8
Editor's Notes .....	9
Field Day fun & games ...	10-11
Calendar .....	BP
Membership Application ....	BP





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#### 1994 SARA Officers

##### President

Elizabeth Eyre, KD6GIW  
667-5299

##### Vice President

Mark Lemmons, WB6BJN

##### Acting Secretary

Bob Pinheiro, WA6ZLO  
523-5880

##### Treasurer

Bob Kimball, KC6TVE  
892-8664

##### SARA VHF Net

Thursdays @ 8 p.m.

(Except Holidays)

2 meters 145.39 MHz WD6EJF

220 Band 224.14 MHz WD6EJF

Contributions to *The READOUT* are always welcome and may be submitted to the editor by mail or via packet at KD6JZZ on 144.97 MHz. Or you can reach the editor's PBBS, WA6ZLO-1 via packet on 144.91 MHz. If you can not reach it direct on .91, you can go through the SARA K-Node of Mt. Oso. Type C SARA then C-WA6ZLO-1. The deadline for articles is the 15th of the preceding month. Articles regarding religion or politics are not accepted.

#### Editor

Bob Pinheiro, WA6ZLO  
1221 Mist Flower Ct.  
Modesto, CA. 95355  
209-523-5880

#### 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.



## SARA Technical Report

By LeRoy Campbell, NV6S

The technical front continues to operate behind the scenes with little that you may see.

The crystals are here for the low level repeater. I am attempting to get help from someone with a service monitor to tune up the duplexers and check the repeater out after installing the new crystals. Alex who usually helps out has been super busy. I will also need 100 feet of coax, either 9913 or hard line to use in the installation.

I am writing this the night before the club meeting and will ask for money for that at the meeting. Assuming the club agrees to the coax, We should see the new repeater on line in the next couple weeks. The site has a tentative approval and we plan to install it understanding that it could be disapproved later and we would have to find another site.

We are still experiencing interference problems on the hill. Plans are being made to install more grounding on our equipment and replace guy wires. The Stockton repeater, 146.88, is also experiencing difficulties. We are working together to solve both problems. Our repeater is desensing

them a great deal. They suspect the receiver they are using may have a problem and are planning to replace it within a couple weeks. I have been unable to detect any interference from their equipment to ours although potential does exist.

Jim, N6KMR, has donated approximately 30 feet of 1/2 inch heliax for the 440 repeater. I believe that I have some connectors that will work on that and if so that should help the 440 repeater out a bit. Sometimes the audio of that machine seems to just go away and then return on its own. I have an idea of what that may be but will look for it when I make my next trip up the hill.

The rest of the equipment is working with great dependability. My busiest season is now winding to a close at work and I am hoping to find more time to work on things.

I thank all of you for your patience and thanks to all who have helped with technical chores. We owe thanks to Don, AB6AE, for securing the low level two meter site for us. 73 to all and cul.....LeRoy

## SARA Minutes

By Bob Pinheiro, WA6ZLO

The August 16, 1994 meeting of SARA was called to order at 730 PM by President, Liz, KD6GIW. Introductions followed of 29 members and guest present.

Acting Secretary Bob, WA6ZLO, reported for the Treasurer who could not make the meeting. Expenses for the year \$2872.11, Income \$2100.60, balance in the bank \$1475.41.

Chief Engineer, LeRoy, NV6S, reported that the crystals for the new low level SARA repeater have arrived. They will be installed and then the duplexer will be retuned for the new fre-

quency. LeRoy wanted to keep the frequency confidential until the machine is on the air.

Don, AB6AE, has received tentative approval for SARA to use a telephone company building site for the machine. The site is located at the corner of 7th and Morgan Street in S. Modesto and there is about a 50 foot power pole next to the building that we could use for the antenna. LeRoy requested funds to purchase 100ft of 9913 coax for the system. It was approved. The machine will be PL'ed, probably 156.7 Hz.

President Liz announced the passing of past SARA officer, Oliver Borns, KJ6YZ. She said several hams

See "Minutes" page 6



# The silent killer

By Tommy Farr, WJ60

*From the SARA archives come this true life story which originally appeared in The READOUT in 1989. It's a story that teaches a lesson regarding lifes maladies as told from the personal experience of Tommy Farr, WJ60.*

**For** some time now your editor has been gently cajoling me to relate to this audience my personal experience with a disorder called sleep apnea. I hope this article will help someone else as I was helped through discovery and subsequent treatment of this serious malady.

I think it would be appropriate to start by relating how I came to learn about sleep apnea. As a mid-manager for the City of Turlock, in the Water Quality Control Department, I attend monthly training meetings sponsored by the Stanislaus County Safety Council. In the summer of 1988 one such seminar featured Joseph Kwentus, M.D., whose topic was sleep problems associated with shift work.

As my work place features a twenty four hour operation divided into three traditional shifts, this lecture was of keen interest to me. I have worked shifts most of my working life and a good understanding of Dr. Kwentus' talk might help me as a supervisor as well.

After introductory remarks and initial comments, Dr. Kwentus, as an aside, discussed sleep apnea. He speculated there were likely several people who fit the classic stereotype for this disorder in the audience. Sleep apnea is a disorder

that is insidious in its potential for lessening the quality of one's life.

## Three forms

Basically, sleep apnea can occur in three forms; obstructive, central, and mixed. Occurring during sleep, the normal course of breathing is interfered with and the sleeping individual suffers from decreased quantity, and more importantly, quality of sleep. With obstructive sleep apnea, the airway is blocked and often the sleeping individual will thrash around the bed fighting for air.

Though sometimes awakening to full consciousness, more often the person will be aroused just enough to get a breath of air and then return to deeper sleep state. Once again the airway is blocked and the cycle begins again. In the extreme this problem continues all night long and the quality of sleep is so poor the individual becomes pathologically sleep deprived and effectively non functional.

## World class snorers

Mostly affecting middle aged males who are overweight, many obstructive apneics are world class snorers— I mean the wall shaking, I wish that guy would move out of the house type snoring. Characteristic of these individuals is a lack of energy and a need to take daytime naps to catch up on their sleep debt.

A typical scenario, and one I can say I also was famous for, would be watching a football game and not being able to view a quarter of the game without nodding off. Even during these times I would snore and my airway would become blocked. A characteristic snorting sound and a brief awareness that I had

fallen asleep would occur and I would then nod off again. Where the humor becomes thin in this story is when I came to the realization during Dr. Kwentus' lecture and description of the classic apnea sufferer, that I fit all of the symptoms he described.

After his talk I got his business card and sort of forgot about it. Some weeks later I found that card among some QSL cards and noted Dr. Kwentus was the director of the Modesto Sleep Center at Modesto City Hospital. With some reluctance I called the phone number and was greeted by a very friendly and understanding staff member who told me how things worked at the center. In a nutshell, she forwarded a rather lengthy questionnaire to me that asked more questions about my health and sleep patterns than I thought possible. She also scheduled an appointment for me to see Dr. Kwentus to review my answers to the survey questions.

## Conference with the doctor

At that conference he asked me more questions and made an initial diagnosis of obstructive sleep apnea. He was quite helpful in his explanations and gave me some literature explaining, in laymen's terms, the problems associated with the disorder. He said it would be necessary to have a sleep study done to confirm his diagnosis. His staff showed me a sleep suite, not unlike a comfortable bedroom, where I would be asked to return for an appointment to sleep. I indicated I felt I could probably do that.

A week later, I checked into the hospital (outpatient) at 2030 and was in-



Before

After

See "Killer" page 4



# "Killer"

from page 3

troduced to the sleep technicians who would monitor my sleep and conduct what is known as a polysomnograph. This entails having many electrodes (non invasive, just glued on to the scalp) attached to you to monitor your heart rate, respiration, oxygen saturation, and brain waves during sleep. I must admit I did not think there was any possibility I could go to sleep on cue with all of those wires attached to me, but you know I performed like a champion.

I told the technicians of this concern and my fear that I might not even snore. They asked me to relax and do the best I could under the circumstances and around 2345, they put me to bed and turned out the lights.

## Constant observation

There is constant remote visual observation and a dandy intercom to listen to the patients. I feel the staff at the sleep center are very well trained and efficient. As is my usual habit, I awoke once during the night to heed nature's call and the technicians assured me I had nothing to fear regarding my snoring. I was rattling the walls within minutes of lights out.

The study lasted about six hours and was sufficient to gather the data necessary to evaluate my problem. Because an initial survey of the somnograph showed marked obstructive apnea, I was asked to remain at the center and have a daytime sleep study to confirm the degree of my sleep deprivation. This involved the technician entering the room every two hours, closing the blinds, turning off the television, and asking me to lay down on the bed. They would not ask me to sleep or try to sleep, not wanting to implant this suggestion in my mind. I had little difficulty nodding off quickly and they would awaken me after about 15 minutes and I would be asked to stay awake until the next two hours passed. I occupied myself with reading, snacking, and watching TV.

## Review of test results

Then the next test would begin. This continued for about eight hours and each time I had no trouble catnapping. At

the conclusion of this test I was released and a follow up appointment was made for Dr. Kwentus to review the test results with me. I might add the staff were very helpful in answering questions during the entire process which helped allay my apprehensions.

About a week later Dr. Kwentus confirmed his initial diagnosis and explained the obstructive process to me and indicated he was at a loss how I could be functioning in my work because of the level of sleep deprivation he noted from the study. I indicated to him that I must be effectively compensating for the problem by extra naps and sleeping in on my days off, because I was doing quite well on the job, thank you.

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*"many apneics face hypertension, sexual dysfunction, heart irregularities, low productivity, listlessness, malaise, personality changes,"*

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He further explained the potential problems many apneics face including, hypertension, sexual dysfunction, heart irregularities, low productivity, listlessness, malaise, personality changes, and possibly even death associated with an obstructed airway causing sleep deprivation. I left his office somewhat shaken believe me. I had been unaware I even had a problem. I guess herein lies the difficulty. Most people suffering from sleep apnea are not aware of it. They drift along and steadily the problem becomes more severe.

## Central apnea

I mentioned earlier the three types of sleep apnea. In the second type, central apnea, research shows people suffering this type have a problem in the area of the brain which controls the automatic breathing response. A person can consciously hold their breath until they pass out, but then brain will start the breathing process automatically.

Some people have the central form of sleep apnea where this normally automatic process is subverted. This is a much

rarer form of the disease. However, people who have the obstructive form of apnea have what are termed central apneic episodes. It is felt as the obstructive apneas continue in length and frequency over time, that portion of the brain that tells your body to breathe begins to forget this function. This leads to what is termed mixed apnea. In the final analysis, I fell in this category as it was likely I had been suffering for some time.

## Is there hope?

Does this sound like there is no cure? Is there no light at the end of the tunnel? Well don't despair, there is a happy ending to my story, but it is some distance from here.

A recommendation was made that I try a device known as a CPAP (see-pap) machine to overcome the obstructive aspects of my apnea problem. Basically the CPAP machine could be likened to a very quiet vacuum cleaner with the hose attached to the end that blows out air. This hose is attached to a form fitting facial mask that a person wears during sleep.

The airflow pressure is adjusted to a point where the blocked airway is kept open by the force of the air. I rented one of these compact units on the Doctor's prescription and tried to get accustomed to it. Believe me it was a challenge at first and not something for everyone. I adapted quite well and within a week I was reaping the benefits of restful, quality sleep for the first time in years.

It is hard to describe how different I felt after catching up on what my body had been deprived of for so long and the positive effects it had on me. When I mentioned earlier how I had been effectively compensating over time for this problem, that was likely an understatement. I would liken the results I experienced to getting a good whiff of smelling salts and the resultant mind clearing effect.

I didn't think things were cloudy before, but once I got acquainted with that CPAP unit, things took on a completely different and much more positive meaning to be sure. The use of the CPAP machine is all that is required to alleviate the apnea problem for many people, but this was not to be the case for me.

See "Killer" page 5



## "Killer"

from page 5

### Being overweight a big factor

Dr. Kwentus told me a big contributing factor in many obstructive apnea cases was the patients were overweight. In males, fat tends to be deposited in the upper body, including the neck and throat regions. This makes the airway easier to be occluded with excess or floppy tissue.

Many people can be effectively treated for this condition by weight loss. Toward that end he recommended I participate in a rather aggressive approach to weight loss. He told me about the Optifast program in Stockton administered by St. Joseph's Hospital (that is another story in itself). He also wanted me to undergo evaluation by a Modesto ear, nose, and throat physician, Dr. Alfred Venturini.

I saw him about a week later and found him to be quite knowledgeable regarding sleep apnea also. He recommended x-rays of my skull and throat areas so he could evaluate the size of my airway and the relation of my tongue to my throat area and other factors that could affect my breathing. He further indicated a need for a fiber optic analysis of this region to observe exactly what was occurring when I was inspiring. All of these determinations resulted in his referral to Robert Riley, D.D.S., M.D., in Palo Alto.

### Surgery scheduled

Dr. Riley is one of the most knowledgeable physicians in the world regarding surgical correction of anomalies in the palate and throat area that are contributory to the obstructive apnea process. I cannot tell

you how comfortable he made me feel in his explanations of my condition and how he felt my problem could be helped with surgical intervention. He applauded my weight management efforts and we scheduled a two fold surgical approach to correct my problem for February at Stanford Hospital.

It seemed like the time flew from when I first saw him until I had the surgery done. Riley, a pioneer of these corrective techniques, travels extensively lecturing on the problem and teaching the procedures to other surgeons.

The first procedure involved surgical-

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### *"palatopharyngioplasty (PPP), involved removing excess tissue"*

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ly advancing my tongue forward and reattaching it to my lower jawbone. The other procedure known as a palatopharyngioplasty (PPP), involved removing excess tissue and trimming of structures to prevent occlusion of my airway. Dr. Riley was very candid in his explanations of the discomfort I could expect following the surgery, but I guess in reflecting back on it I didn't believe it could be that bad. Boy did I miss the mark on that one! I was a pretty sad pup for a couple of days after the procedure, but by day three I was ready to head back to Turlock and a month long convalescence.

### No complications from surgery

Day by day I felt better and had no complications from the surgery. As I continued my recovery I also continued to shed pounds until I reached my goal at the

beginning of April. Dr. Venturini performed surgery in May to correct a deviated nasal septum. The logic being to enhance all airways to give me the maximum possible chance for correct breathing.

### Feeling great

At this writing I am feeling just great. Having lost ninety one pounds in all, I am told I look a lot like I did when I was in high school. I know I have considerably more energy and I am sleeping very well now.

In a follow up sleep study at the end of June there was a dramatic improvement in the frequency and duration of apneic episodes. I still suffer from a few central events but the prognosis, provided I can keep slim is for my brain to "remember" to send breathing signals as it should. This will likely take time and given the health reprieve brought about by detection and correction of my apnea problem, I feel I have that time.

As I celebrate my forty third birthday today, I thought it appropriate to close the door on this chapter in my life. I think I will live longer and have a better life having caught these problems in time. I eat healthy foods (for the most part), exercise regularly, and keep my stress level down.

Most importantly, when I hit the sack now, I have the feeling I am getting the kind of rest so important to overall health. Possibly by my sharing my story someone reading this will be stimulated to address their own problem. It won't go away. It will gradually deteriorate your health.

Researchers are discovering many deaths of middle aged men who die in the hours approaching dawn are succumbing not to heart attacks, but rather their hearts stop from apnea and the body doesn't get the heart going again.

### Don't take a chance

Ask your spouse (if she hasn't told you already) if you snore loudly. Has she ever said you hold your breath at night while asleep? Are you dragging through your day just to fall asleep in the lazy boy when you try to watch the evening news? Are you packing those extra pounds?

If you fit this profile or can answer any of these questions in the affirmative, get some help! 73 and good luck! Tommy, WJ6O.

## Pacemakers and RF

by Cliff Hatcher, K7GJL

When my new pacemaker was implanted, the surgeon gave me written and verbal instructions about the effects of strong electric fields on its operation. He said my normal activities, including Amateur Radio, are not likely to affect it, but he advised against making direct contact with a running automobile engine.

There are two kinds of pacemakers.

Mine is the bipolar type, which has a wirelike coaxial cable that goes from the unit to the heart. This prevents outside fields from interfering with its operation.

I received more information by calling the manufacturer, Siemens. The engineer I spoke with implied that anyone who operates radio equipment would be well advised to insist on a pacemaker of the bipolar type.

from the November-December '93 Kachina ARC (Show Low, Arizona) "Kachina QSO"—Judy Roush, AA7UC, Editor via the ARNS Bulletin.



# **SARA's 1994 Fund Raiser**

**Grand Prize**

**Colt .357 Caliber  
Revolver  
with 6 inch barrel**



**or**

**\$500.00 Cash**

**Drawing is October 18, 1994  
at the SARA club meeting**

**Tickets available from SARA members  
or**

**Bob, WA6ZLO, 523-5880**

**\$1.00 donation**



**Thank you for your support!**

## **TS-850 For Sale**

TS850s/AT ..... 100 watt transceiver  
with antenna tuners.  
P-31 ..... External speaker with  
filters.  
DRU-2 ..... Digital recording unit  
VS-2 ..... Voice sythezizer  
(little japanese lady speaking english)  
YK88SN-1 ..... 1.8Khz ssb filter  
YK88CN- ..... 1270hz cw filter  
YG-455-C-1 ..... 500hz cw filter  
MC 80 ..... Desk mike

I still have the original packing boxes.

Cost total 2400 dollars new. Will  
take \$1900 dollars or best offer.

The TS850 has many nice features such as  
a built in keyer, 100 memory and etc.

Contact Bob, N6OCS, at 209-522-  
6127 or on via packet on 144.91 @  
N6OCS-1.

## **Minutes**

**from page 2**

attended his funeral. She requested a  
minute of silence in honor of his memory.  
Ernie, K6UVI, was unable to attend the  
meeting, therefore the FD video will be  
shown at next month's meeting. ZLO re-  
ported that several new members have  
joined. With those that joined at the meet-  
ing, our membership is now at 175.

ZLO reported that requests for more  
raffle tickets are steady. Sales appear to be  
steady. Meeting adjourned at 830 PM. A  
video on the California Zephyr was shown.

Worldradio

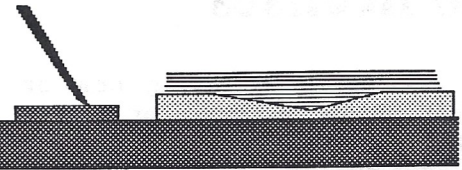


"It's a wind driven generator. If I  
run 5 miles it will recharge my  
battery pack."



# From the desk of N6ZUC

**J. T. "Tim" Low**



**T**his is one of those months when I just don't have enough on any one subject to write an article about. It happens now and then, and is probably a good thing, as it affords me the opportunity to clean out my note basket.

The note basket is where I keep all those odd bits of paper, napkins and clipings with hints, tips and ideas scribbled on them. You might even find the odd piece of commentary thrown in this month, just for measure. So sit back, put your feet up, and have a good read.

I have a great tip for you this month if you are a user of a mouse on a computer. No matter what mouse and mouse pad combination I tried, eventually the mouse would start skipping. The mouse ball just won't track on a mouse pad after it's been used for a while. I guess the pad gets real smooth, and the ball won't track properly. I found a good reliable and cheap way of ridding myself of this annoyance.

I just wrap and tape a piece of printer paper over the mouse pad. The paper is slick enough for the mouse to move on effortlessly, and rough enough for the ball to track. When it gets worn out, (you're ahead of me aren't you?), I just tape on a new piece. I find it makes a handy scratch pad for making notes on also. The ink doesn't seem to bother the mouse one bit. You might say it helps keep me organized, for in its absence, I'll scratch notes on anything.

If you run Windows on your puter, and you have a few of your favorite Ham and electronics programs running under that operating system, you know it's hard to find decent icons for them. I have used the icon editor in Norton Desktop to create a few for my personal use.

There are several editors available for download on most BBS's, and they seem to be very easy to operate. I have no artistic ability at all, and I made some

that I think look real good. I have some for packet, satellite tracking, component cross reference, antennas, ect.. If you would like a copy of them, I'd be happy to share. Drop me a line, and we'll make arrangements to download them, or mail them to you.

Most of us seal out moisture from our coaxial cable using either coaxial sealant, available at places like Radio Shack, or simply wrapping black electrical tape around it. By the way, I think the latter is a bad idea, as I've discussed in the past. A few months ago I also told you about a substance available at Harbor Freight that does a good job. Now from Bob, WA6ZLO, comes another idea.

Bob tells me that he used Permatex on some of his connectors, and just recently pulled them off. He tells me that he used a knife to cut the old sealant, and then just peeled it away. The connector? Like shiny and new!

Permatex is an industrial type sealer caulk, used on air conditioning and a whole host of other applications. Check your local air conditioning or plumbing supplier to see if they have it.

Rat Shack (Radio Shack) has just introduced a new DSP (Digital Signal Processor). When I heard about it, I stopped by my local store and took a quick look at it, and read through the manual. The basic claim is it will reduce noise, adjacent channel interference, and heterodyning. It has fixed variable bandwidth filters for CW, SSB AND AM reception. I have not tried it myself, but can pass along some information I picked up from a few users who have bought one.

The general perception of its abilities is that it works great on reducing that annoying squeal produced by those idiots who insist on tuning up on top of your SSB and CW QSO's. Word however is that the noise reduction is minimal, and the filters are not as sharp as they

should be. On the other hand, the price is right at around eighty bucks. Much cheaper than most of the other DSP models on the market. Maybe you will pick one up, and give us a good review here in *The READOUT*.

One last note, and this one has again to do with coax connectors and sealant. This time on how to remove coax sealant. That sticky stuff that does such a good job of keeping the water out, but is a mess to try to get off. Indeed, most people just throw them away, and install new ones. Instead of cutting off the old connectors and throwing them away, try soaking them in common turpentine. It is said to loosen up the sealant, enabling you to simply wipe it off with a rag. This hint came from the June issue of QST, and was sent in by Edgar Reihl, WA9ULU, of Northbrook, IL.

That's it! Hope you kept your eyes open, and that you can use some of it. If you have any comments, suggestions, questions, or clarifications, drop me a line in care of *The READOUT*, send me a packet at N6ZUC @KJ6VC.#SOCA. CA. USA.NA, or you may FAX me at (619)735-9125. 73, Tim.

## Printed Circuit Board Design

**J.T. (Tim) Low  
N6ZUC**

**Phone or FAX  
(619) 735-9125**

**2936 Amanecer Place  
Escondido, CA. 92027**



# FCC computer gives new look to licenses

Amateurs receiving new or modified FCC licenses after June 8, 1994, should carefully note their expiration date. Only new (first) licenses or specific renewals have a full 10-year term.

Amateur license upgrades and changes of address, call sign, or name are processed with the original expiration date intact. That is, they are not automatically renewed for a new 10-year term.

The FCC, using newly installed computer software, is processing amateur licenses in this manner to conform with the way in which it processes all other Private Radio Services licenses.

The FCC currently recommends that amateurs submit license renewal applications 60 to 90 days before their expiration date. The Commission said it intends eventually to mail license expiration notices to amateurs. In the meantime, the ARRL is sending license expiration notices to ARRL members along with an FCC Form 610 and a return envelope addressed to the FCC's licensing division in Gettysburg, Pennsylvania.

Another difference in these new licenses is the new "TECH PLUS" category for those who have qualified. Persons upgrading from Novice, or those who upgrade from codeless Technician by passing Morse code exam, or persons who pass the Novice and Technician written tests—plus a Morse code test—will receive a license that reads "TECH PLUS" under Operator Privileges.

Persons who became a Technician with HF privileges with a license begin date prior to June 8, 1994 must continue to retain their "Technician" license and Certificate of Successful Completion of Examination" (CSCE) in order to show that TECH PLUS privileges are held.

Other changes include the look of the amateur license itself. More information will appear in "Exam Info" in August QST. *ARRL Letter*



## From the **SARA** Mailbox

Dear Bob, WA6ZLO;

*I'm glad you decided to stay with The Readout over the summer; you've got a unique style that makes it all the better. In fact, congratulations on yet another award for The Readout! You've earned it!*

*The actual thing I wanted to comment on was an article you ran last month; the one about CW Rabbit. While it is a thought-provoking story, it was loaded with inaccuracies, by innuendo, if not outright.*

*I distinctly recall seeing the story run and re-run on packet during the "no-code wars", the big debate on packet, prior to the FCC's NPRM. It was a very emotional time for a lot of folks and it generated a lot of inaccuracies and misconceptions. As it happens, the ARRL was not (openly) against the codeless ticket; their official stance was actually neutral, until they determined that there was enough interest to pursue the question publicly. And of course, once the NPRM was released, the League came out in favor of a codeless ticket.*

*And I'm sorry, but I have to point out that with the exception of CLOVER, there is absolutely NO mode as fast or efficient as 20 wpm CW between several experienced operators. I see this daily. It's easy to prove; simply listen to NCN running traffic some night, while watching the traffic flow on packet. The difference in actual data flow is just shy of 3:1, in favor of CW.*

*One other thing to bear in mind, is that the codeless Tech license is intended solely as an alternative ENTRY-LEVEL ticket. Not an end, but simply a means. To tell the truth, Bob, I don't know if I'm preaching to the choir. I don't even expect a reply. But I did have to vent my spleen a bit about the article. And I thank you for reading. Take care. I look forward to seeing you again.*

73,

*/s/ Mike Siegal, KI6PR, ARRL San Joaquin Section Manager, Merced, CA.*

(Ed. Note: Mike is referring to the story of "Digipeter Rabbit", written by Frank Terranella, N2IGO, which appeared on the front page of the June 1994 issue of *The READOUT*. Mike's views are well taken and his comments are most welcome. However, in defense of the author, the article was clearly identified as a "No-code fable". )

## A new CB band?

Radio Shack, a division of Tandy Corporation, filed a Petition for Rule Making with the FCC to use UHF spectrum for a new Family Radio Service (FRS) "without the burden-some licensing and technical requirements of existing radio services." FRS would use 500 mW radios on 16 channels in the General Mobile Radio Service (GMRS) - a licensed personal radio service for individual use (FCC Part 95A).

GMRS has eight "primary" frequency pairs at 462 and 467 MHz for repeater and "direct" (simplex) communications, seven low-power, direct-only "interstitial" frequencies at 462 MHz in-between the primary frequencies, and

interstitial frequencies at 467 MHz in reserve for advanced systems.

The consumer electronics giant called the GMRS licensing requirement an "impediment", however, and said the "ultimate success" of FRS "hinges upon it being an unlicensed service." Tandy cited the "significant cost savings" and substantial administrative savings that the FCC realized from de-licensing CB radio. Tandy said the frequencies would accommodate a "large number of new users." Unlicensed FRS owners would have access to licensed GMRS repeaters, a proposal that could alarm repeater licensees. The FCC had not issued a rule making (RM) number to the petition at press time. *W5YI Report*





# Editor's Notes

By Bob Pinheiro, WA6ZLO

**O**ur club roster is usually printed in the newsletter in April and September. We were hard pressed for room this month, so we will run the roster next month. Our membership now stands at 175 with the addition of the following new members. Steve Nunley, KE6FNU; John Salehi, KE6KTZ; Daryl Wein, KE6KTW; Jack Horton, N6QD; Mike Heenan, KE6FOB; Chris Camp, KB7ZGC; and three associate members, John Spears, Ray Walton and Cam Davilla. A big **SARA** welcome to our new members. Also welcome back a few old members. Jim, N6KMR and Dave, WA6GUO.

Speaking of membership, **PLEASE**..if you move please notify **SARA** ahead of time. Because we use a bulk mailing permit for the newsletter, the Post Office **WILL NOT** forward the newsletter to you even if you leave a forwarding address. They will throw it away and charge us 35 cents to give us your new address.

— It's been a relative quite summer month for the club. Not much going on except the raffle which is off to a smooth start with sales appearing to be moving well. I do have a supply of extra tickets if you need more. Please call me at 523-5880. Again, thanks to Jim, KB5FB, for all his help in printing the tickets and preparing the envelopes they were mailed in.

— Fearful of the skills and machinery of high-tech counterfeiters, the Treasury Department announced in July the first major redesign of U.S. currency since 1829, unveiling plans for a new \$100 bill, with an off-center, and much bigger, portrait of Ben Franklin.

The revised C-note will be available starting in 1998, with smaller denominations issued later. By 2000, new versions of all bills from \$1 to \$100 will be in circulation. All will have the same color and feature the same historic people as the existing greenbacks, but the portraits will be 50 percent larger.

The new bills are designed to

thwart advances in computerized printers and copying machines used in counterfeiting.

On the \$100 bill, Franklin's face will be moved to the left by one-half to three-quarters of an inch, leaving room for an embedded thread that with magnification will be seen to spell out "USA 100", and a watermark portrait of Franklin that will be visible when the bill is held up to light. A new type of green ink will appear to turn gold as the bill is handled or viewed from another angle.

The new \$100 bill also will be printed with a technique called moire-generating patterns. Lines on the bill appear straight to the human eye. But when the bill is put through a copying machine, the resulting counterfeit copy will show blotches instead of lines.

Treasury and Federal Reserve officials emphasized that all \$100 bills now in circulation will remain legal.

The biggest threat to the safety of U.S. currency comes from abroad, government officials say, where more than 50 percent of the \$357 billion in U.S. currency in circulation is held.

The Secret Service works closely with foreign governments, and more than \$120 million in counterfeit U.S. bills were seized abroad last year, compared with just \$44 million in bad bills in the United States, according to the Secret Service. (Courtesy of Los Angeles Times via the Modesto Bee)

— The wrist radio television set that has been in the Dick Tracy cartoon series for years as some futuristic police communications device may soon become commonplace, the head of the FCC's private radio bureau predicted during the Ham-Com convention in Texas.

Ralph Haller, who heads the bureau which oversees the Amateur Radio Service, said during the ARRL banquet that the technology already exists to give everyone their own personal telephone that could be answered anywhere in the world.

"Imagine having a Dick Tracy wrist radio that would take the place of your home

and office phones, your cellular phone and world anywhere in the country of world. It might even have video and FAX capabilities" Haller said. "Beyond that, you will have a personal telephone number and the network will find you wherever you are," he predicted.

"The number will be associated with you, just like your Amateur call sign—I think its amazing, but the technology already exists," he said. Haller commented how rapidly technology had advanced in the past 10 years, especially the digital and computer areas. "The pace the next 10 years will even be faster," he predicted.

The week before Ham-Com the FCC adopted new rules for a personal communications service at 1.8 GHz and Haller predicted that the service would be so popular it would have 100 million customers within 10 years.

"Eventually," he said, your portable communicator will be as commonplace as your telephone or television. These new service should be showing up in about two years."

Haller, who chairs an FCC task force on personal communications, said the PCS will provide the first real competition to cellular.

These competitors, he said, will provide "feature rich services that will push cellular into providing enhanced services at lower costs. I realize that many of you use Amateur autopatches, but you have many restrictions on their use. You may well find PCS a great augmentation to your current Amateur operations," he said.

"We are about to embark on the most exciting time in the history of communications— perhaps more exciting than the original invention of the telephone or broadcast radio. Everyone's daily lives will change for the better," Haller predicted. (Courtesy of the Arlington, Texas ARC Newsletter) That's it for this month. Sell those raffle tickets, we need the funds.

73, Bob



# Field Day 1994, fun and games

By Rita Palacios Rader, KD6BNV

**The** 1994 SARA Field Day ended as it started, with lots of fun and games. Here's my account of the events as they unfolded in the majestic grandeur of the high Sierra off Highway 4.

**Friday 6/24/94**

The race up the hill to fling antennas is on! Once in the campground, the guys gather to scope out the site. Quickly, out come the wrist rockets and the fishing tackle boxes. Different weights are procured as well as reels and fishing line. The weights are tied to the end of the lines as the men go forth slowly among the tree their keen eyes shifting back and forth as they move amongst their prey. They take aim and fire—alas the prey escapes, but their aim has struck at the heart of a tiny sapling.

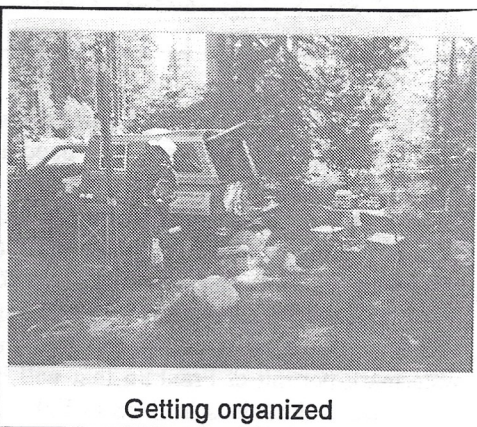


The parking lot

Undaunted, the men pull and tug retrieving their weapons. Again they take aim, and again a sapling is struck—and again—and again—and again. Each time armies of mosquitoes come out to defend their realm only to be defeated by eau de repellant.

The mighty pine stands tall looking down at the men, its branches waving about as it laughs. The determination upon the faces of these men send a shiver thorough the mighty pine. The men raise their sling shots and take aim. The shot was true, the mighty pine had bent to their wishes.

By nightfall, our champions had hoisted aloft three antennas. (at various heights, 50, 80, 90 feet. The height increased with practice.



Getting organized

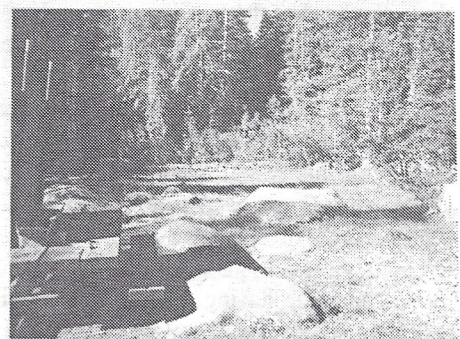
**Saturday 6/25/94**

Dawn finds our men out of their tents with a mug of coffee in one hand and eau de repellent in the other. With breakfast over, our party of tree hunters, N6OCS, NV6S, K6UVI, & KC6VWO, continue their pursuit of the perfect tree. Mark, WB6BJN, handles 2 meters and helps get everyone up the hill. By 11:00 AM all antennas are up and radios are set to 10, 17, 20, 40, & 80 meters. Get on your mark get set go. The contacts begin!

Now that all the rigs are set and going the job of setting up the left foot and fanny contest begins. The board containing the letters of the alpha-bet and numbers is placed strategically so that all contestants can see it. The batmitten net was set up along with the horseshoes. By noon all was ready. Several people came by to visit including a troop of boy scouts.

## Foot and fanny contest

At 6 PM the foot and fanny contest began. The rules: 2 minutes on fanny and



The campgrounds

2 minutes on left foot qualified going for the grand prize (which just about everyone shot for). Non-amateurs and Amateurs alike were bouncing up and down in hopes of winning the grand prize as cameras and camcorder recorded the event for prosperity (and black mail).

The contestants walked up to the throne, placed their ample bottoms upon it and bounced out what they hoped would be something akin to Morse code. The expressions their faces told the story. What to them felt like hours on the "throne", felt more like an hour.

But those of stout heart (and legs) bounced up and down as the crowd cheered them on—or was it, jeered them on. Mark, WB6BJN, had the best bounce and won the grand prize, a six element Yagi beam built by Don N6KMC. Don also who won a large stuffed pig. Other winners of the large pigs were Patricia, KE6CZW, and her



SARA banner marks the place

little sister Sara; Liz KD6GIW; Jim KE6AIS, Larry (Liz's step-son); Bob N6OCS and Brian, KA9SNF. Leroy, NV6S, won a small stuffed pig.

My thanks to Don for providing the grand prize and Liz for providing the logos for the large pigs' T-shirts. And Many thanks to all those who participated in all the Field Day activities.

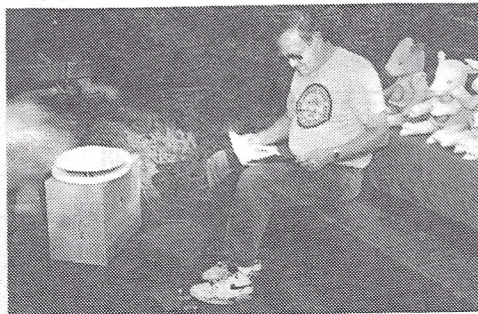
The video of Field Day will be shown at our September club meeting. Come to the meeting and watch your club President and Vice President excel in the foot and fanny contest.

**More Field Day photos on page 12**





Pres. Liz, KD6GIW, with the prizes



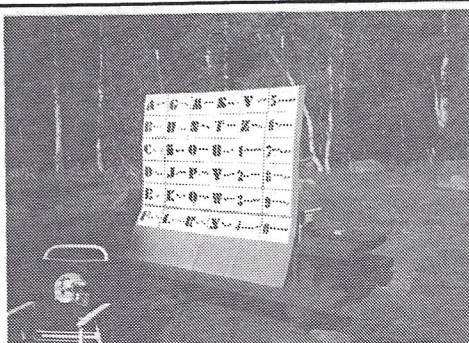
Ernie, K6UVI



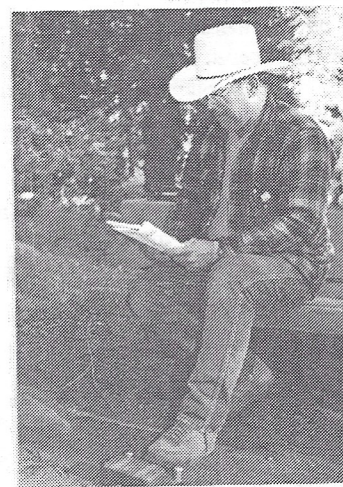
Rita, KD6BNV



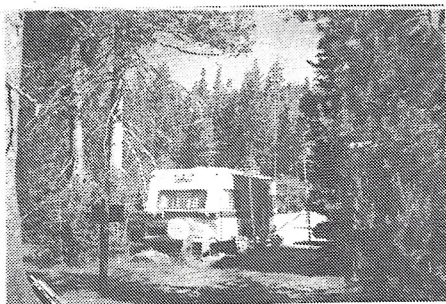
Liz gets ready for fanny CW



Just in case anybody forgets their CW



LeRoy, NV6S



Nestled in the pines

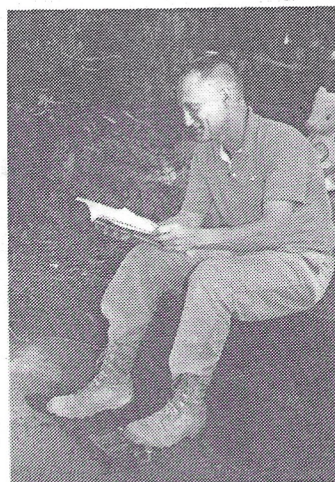


Patricia, KE6CZW

Ed. note: The 1994 *SARA* Field Day was held at Big Meadow State Park Campground on Hwy 4. The site is at the 7,000 foot level in Calaveras County. Ernie, K6UVI, wishes to express his gratitude for all the help he received as the chairman of the event. Special thanks to Don, AB6AE, who went through a lot of trouble to get the generator; Liz, KD6GIW and Rita who were involved with providing the prizes and all those who helped in some way.

### Acknowledgments

Thanks to Dave, WA6GUO and Ernie, K6UVI, who took the photos appearing herein. Thanks to Gary, KJ6Q, who half-toned them for reproduction in **The READ-OUT**. And thanks to Rita, KD6BNV, who wrote the story.



Brian, KA9SNF





# Calendar

Sept 10 ..... VE Testing In Modesto ..... 9 AM  
 Contact W6XK 883-2968  
 Sept. 10 ..... Foothills Swap meet ..... All day  
 Foothills College, Los Altos  
 Sept. 20 ..... SARA Monthly Meeting ..... 7:30 PM  
 Oct. 7-9 ..... 1st National Hamfest ..... 3 days  
 Bakersfield, CA.  
 Oct. 8 ..... VE Testing in Merced ..... 9 AM  
 Contact K16PR 383-2166  
 Oct. 21-23 ..... PACIFCON94 ..... 3 days  
 Hilton Hotel, Concord, CA

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/VARES 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.



## SARA Membership Application

Call \_\_\_\_\_ Date \_\_\_\_\_  
 Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_  
 State \_\_\_\_\_ ZIP Code \_\_\_\_\_  
 Are you a member of the ARRL? (Yes) (No)  
 Home Phone \_\_\_\_\_  
 Business Phone \_\_\_\_\_  
 Occupation \_\_\_\_\_  
 Date of Birth \_\_\_\_\_  
 Class of license \_\_\_\_\_  
 Year first licensed \_\_\_\_\_

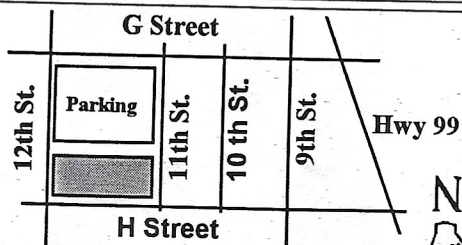
Dues: Renewal \$23.00 per year. Out of area more than 150 miles from Modesto is \$11.00. New first time applicants dues are pro-rated from the month you join the club. Use \$1.91 times the number of months remaining in the year. ie.- You join in July- 6 x \$1.91= \$11.46

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 (SARA) 144.91 MHz. 10 meter digipeater 28.103 kHz.

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

**Address Correction Requested**

Bulk Rate  
 U. S. Postage  
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 Modesto, CA.



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

**TO:**

1994

**Next SARA Meeting is Sept. 20, 1994 at 730PM & You're Invited!**