



# The READOUT

Year 13

Number 11

November, 1991

## U.S. Supreme Court to Reconsider Mail-Order Sales Tax

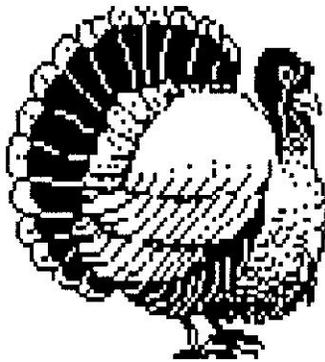
On October 7, 1991, the U.S. Supreme Court agreed to reconsider its 24 year old ruling prohibiting sales tax collections from out-of-state firms. A ruling is expected by next July. An adverse ruling for the consumer could affect a huge chunk of the this nation's mail-order and direct marketing businesses who keep their prices as low as possible because they don't have to collect out-of-state sales taxes.

The court first ruled on this issued in 1967 banning states from imposing tax-collection obligations on businesses that have no "physical presence" within their borders. The Court ruled at the time that requiring the collecting of the tax would violate due-process rights and interfere unduly with interstate commerce.

A North Dakota Supreme Court decision this past May brought the issue up again when they ruled the 1967 U.S. Supreme Court ruling was in effect obsolete and it need not be followed. The U.S. Supreme Court could have easily

reversed the North Dakota ruling without waiting to hear arguments, but instead decided to revisit the case. This clearly raises the possibility the justices will decide to overturn their 1967 decision. If they do, it would mean

## Happy



## Thanksgiving

billions of dollars to state governments and higher costs for shop-at-home consumers and doubtedly put many mail-order firms out of business. Those that remain will be forced to increase their prices

See 'Sales Tax' page 3

## Hints & Tips For Black Box Projects

By Tim Low, N6ZUC

The following are a few hints, tricks, tips and black box projects I've developed or come across to improve in some way my hammin'. We all, at one time or another, come up with ingenious little ways of accomplishing things.

Maybe you've found a good cheap source of parts, or modified something to perform better. Could be something real simple. So simple in fact that no one would think of it. You had a need, and no one had the answer, so you invented an answer. How about sharing those ideas with the rest of us?

We all have looked for a good source of braided ground strap to tie our equipment to the station ground system. One of the best sources has been to peel the vinyl jacket off some 8U coax and pull the shield for that use. A better source is found at your Radio Shack store. It is sold as speaker wire, and consists of two heavy braids of copper in a zip cord style. Simply split this cord in two, and you have some great ground strap. It is called Megacable and goes for 99 cents per foot. Sounds expensive, but remember that you actually get 2 feet of round strap for each foot of Megacable. That's

See 'Hints & Tips' page 3

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Contributions to *The READOUT* are always welcome and may be submitted to the editor by mail or via packet at N6REB-BBS on 145.79 MHz. The deadline for articles is the 15th of the preceding month. Articles regarding religion or politics are not accepted.

**Editor**

Bob Pinheiro, WA6ZLO

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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.

## Swap Nets in N. Calif.

Here is a list of 2 meter and 40 meter swapnets that can be heard in and around the Central California area.

Monday .....8 pm. ... 146.88 MHz ..... Stockton  
Tuesday .....7:30 pm . 147.195 MHz ..... Sacramento  
Thursday .....7:30 pm. 145.21 link to 147.195 MHz  
(Stockton & Sacramento. This link covers from Red Bluff to Bakersfield )  
Friday .....1 pm. ... 7.250 mhz. ....  
Saturday .....9 am. ... 145.21 MHz ..... Stockton  
Sat & Sun .....1230 pm . 7.240 mhz .....

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## KA6SJR Becomes Silent Key

Carl L. (Andy) Anderson, KA6SJR, of Turlock, died September 9, 1991 following surgery at Emanuel Hospital in Turlock. Andy was active in the Turlock Amateur Radio Club (TARC) and was the editor of their club newsletter ARC/OVER. Andy had entered the hospital for corrective surgery for complications from open heart surgery several years old. He died on the operating table. He was 69 years old. Our condolences to his family.

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## Check That Cheap Coax

By Paul Engleman, N6KZW

Stockton, CA.

I just replaced connectors on all my coax lines which is something one should do every few years. Working in the cable industry, I see what happens to connectors and coax as water wicks up the line. Unless you have taken incredibly arduous preventive measures, water does get in and when it does the silver braid and copper conductor turns black or green.

Degradation of signal is very noticeable in a CATV drop cable and is most often caused by water getting into the cable. It most often shows up as corrosion on the surface of the wire. You have no doubt heard the term "skin effect". That's when your signal rides on the outer few microns of the wire. The higher the frequency the more this occurs.

With a ham station you may not notice the loss of signal because we have no reference signals to work with. So, the motive for this bulletin is to explain that my 3 year old RG8 Radio Shack cable was corroded all the way through, not just the first few feet, but the whole 50 ft length. The center conductor was black and the shield (what little there is) was green. The vinyl jacket is of such poor quality water seeps in all along the cable.

### ...Hints & Tips *from front page*

much better than good coax.

Here is a good idea for the Ham who has one, or would like to have just one power supply in the shack to run everything. Almost nothing comes with a built in supply these days. This necessitates some type of external supply. You could have a separate supply for each piece of gear, or like me, opt for one supply to run the whole shack. This is a good idea as one supply costs less, takes up less space, and only needs one AC wall outlet. The down side of course is if you loose the supply you are completely off the air.

In my shack I find I need two different voltages. My rigs need the standard 13.8 volts, but I also need 9 volts to run my scanner, keyer, microphone preamp and my frequency counter. What I needed was a multi outlet strip providing both voltages. The solution was to mount two rows of 5 power jacks in a small project box. In the box I mounted a 9V/1A regulator for each of the bottom row of power jacks. Each power jack, top and bottom row, has its own fuse holder. This distribution box now makes just one connection to the station power supply. Now each piece of gear in the shack can be neatly connected to the distribution system. Remember to fuse each outlet properly, and keep in mind the current rating of the supply. If your station supply doesn't have an amp

meter, you might consider mounting one on your distribution box so you can keep track of the load. The 9 volt regulators can be purchase at an electronics supply store and are simple to install. They have an input, common, and output. If you plan to run them near their limit, you will also need to mount them on a heat sink.

For those of you planning to bury a run of coax, this is an idea that I have not tried, but sounds like a winner. You don't want to put standard coax directly in the ground. It was not made for direct burial. Go to your local K-MART or similar store and buy some cheap plastic garden hose. String the coax through it and then put it in the ground. Of course PVC is better but is getting very expensive. The garden hose will keep the water off the coax and that's better than no protection at all.

I use my Kenwood TH-75 HT for a mobile and as a 440 rig in the shack. It's handy because I can hook it up to the auto power system and external dual band antenna. At roughly 6 watts it does a good job of talkin' to the local repeaters. When I make a stop it comes right out and goes on the belt. In the shack I hook it to the station supply and outside antenna to use as my 440 rig. I use a speaker mic with it, but in the noisy environs of the car, it's hard to hear, and let's face it, the audio quality is not the best.

On the belt, the speaker mic is great. I solved the problem by buying

a couple CB external speakers from Radio Shack. I mounted on the side of the speakers, a mini and a sub mini phono jack so the speaker mic would plug into the speaker cabinet. I used a multi conductor cord with a phono mini and a sub mini plug on the end to plug into the HT. I then wired the speaker up and connected the mic audio and push to talk wires to the stereo mini jack. Now the speaker mic works just like a regular mic. The volume and clarity of the audio from the external speaker is amazing.

These are just a few simple ideas. I hope you can use one or two. I would like to hear any ideas you might have and hope to use them in a future article. As always if you have any comments, or need assistance with a technical problem, send me a packet at N6ZUC ' KB6GVT. #SOCA.CA.USA.NA, or write me in care of **The READOUT**.

73 -Tim.

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## Technical Report

By LeRoy, NV6S

Everything is pretty much as it was last month. The new receiver has arrived for the 440 repeater and will be installed at my earliest opportunity. The antennas will have to be installed for the digi when the new tower is ready at the site.

My current plans are to make a trip up the hill as soon as possible and work on the receiver. I also want to install the beeper for the emergency power indicator at that time. I will check on the tower status at that time and hopefully we will be able to get the digipeater antennas back in operation soon.

I apologize for the fact that other obligations have taken my time and I have not been able to get the receiver installed as quickly as I would have liked, but things should shape up soon. 73 LeRoy.

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### ....Sales Tax *from front page*

their prices to off the increased cost of collecting taxes. 46 states and the District of Columbia all have state sales taxes and estimate they lost over \$2 billion dollars in revenues

In 1988 alone from out-of-state mail-order sales. Keep an eye on this one, it could cost us big bucks in the future. The Supreme is expect to rule on this sometime this year. Keep an eye on this one, it could cost us big bucks.

# SARA Minutes

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By Ernie Rader, K6UVI, Secretary

The regular monthly **SARA** meeting was called to order by President Oliver Borns, KJ6YZ at 7:33 PM on October 15, 1991. There were 30 guests and members attending.

Treasurer's report given by Al, N6SAE showed General Account beginning balance of \$216.14, 3 credits of \$1,394.83 and 7 debits for \$625.68 for an ending balance of \$985.29. The Educational Account showed a beginning balance of \$549.92, one credit of \$85.38, 1 debit of \$5.00 for a balance of \$630.30. Treasurer's report was accepted as read.

Motion was made and seconded to accept the minutes of the last meeting as reported in *The READOUT*. Oliver reported that the 2 meter repeater is operational and the 440 repeater receiver is being replaced. LeRoy, NV6S was again thanked for his labors in this area.

The program for the evening was presented by Paul, KA6CHJ. Paul is the assistant coordinator for Volunteers In Prevention for Solano County. Their packet system is set up from Oregon to Central California and they use packet for OES emergency communication. The Solano group offered a long term loan to **SARA** of a packet package for OES and local use. The decision to accept this offer will be made at a later date by

appropriate club members.

Under old business, the recent Bike-a-thon that **SARA** provided communication for was a success. Only one minor accident was reported, but **SARA** was praised for its participation.

JoAnn, N6SAH asked to be relieved of the net coordinator's job.

The Boy Scout Jamboree On The Air (J.O.T.A.) will take place on 10-19-91 from 9AM until 3 PM. Any interested members are encouraged to participate on 28.440 or two meters.

Oliver asked Bob, N6OCS to take on the responsibility of the nominating committee for the upcoming elections to take place in December. Bob accepted.

Al, N6SAE announced that the 1991-92 callbooks are available through the club for \$29.95 each.

Oliver reminded all those attending the meeting that 1992 dues are now being accepted and will be due no later than December 31st.

The meeting was adjourned at 8:45 P.M. Special thanks to LaVerne KB6ECF for taking the notes for these minutes as I was unable to attend. Respectfully submitted, Ernie, K6UVI.

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## Heathkit Drops Amateur Technical Support

Recently I tried to call Heathkit product support to ask a question about my HK-21 TNC, after an hour of busy signals I finally managed to reach someone.

I was informed that since Heath is no longer in the Amateur radio business they no longer offer support on any Amateur equipment. My TNC is not that old and I recall receiving a catalog from Heath within the last 6 months advertis-

ing my TNC for sale. I intend on writing Heath to express my anger over advertising a product and then abruptly refusing to support it a few months later. I will also consider this in any future purchases of Heath equipment, I suggest you do the same.

(This story received via the Packet BBS System. The author's name inadvertently misplaced.)

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## SARA Library Needed 73, QST, CQ, WordRadio

Once in awhile it's nice to be able to refer back to older issues of ham radio publications, and our local public library carries only QST. That's a fine publication, but there are others that several of us would like to refer to as well.

I propose the following for consideration by the club. Why don't we build our own library and stock it with past issues of 73,

CQ, QST, WorldRadio, and any others we can get a hold of that would make good reference material.

Club members might have these issues laying around and could donate them to this new library, or we might be able to solicit them for a minimal cost.

We might be able to find a place to store these magazines in the club

See 'Library' page 6

# Editor's Notes

By Bob Pinheiro, WA6ZLO

Welcome new SARA member Bill Zeilstra, N7RXW, of Ripon. Bill is a Technician and is the 187th member of **SARA** for the year. Congratulations to Phyllis, N6JYP, on her marriage last month. She and her new husband will continue to make their home in Manteca.

- I'm happy to report that John, KI6OO, in on the mend following a fall in his home that resulted in a few broken bones.

- I received a nice packet sent from Germany by Glenn, KA6WBY, who along with his wife Peg, visited their son Randy, KA6WWT, in Germany last month. Glenn reports they were having a good time and the country was pretty. Randy is serving in the Air Force stationed in Germany.

- Congratulations to Rita Palacios-Rader who received her Technician license in October. Her call is KD6BNV. Now there are two hams in the Rader household...the OM is Ernie, K6UVI.

- Ned, N6RDX, has moved to Sacramento and taken a new job there. Good luck Ned. Speaking of Ned, several newsletters sent out in October have been returned by the Post Office for various reasons. Ned's was returned because we were given the wrong address. The majority of them were returned because the addressee had moved and did not notify us. As mentioned many times before, the Post Office will not forward **The READOUT** because it is bulk class mail. This is true even if you leave a forwarding with the Post Office. They will send it back to us and charge us 29 cents to let us know your new address. One newsletter was returned marked "Addressee temporarily away". Please, if you are moving, or going to be away and not receiving your mail, let us know well ahead of time so we can change your address on our mailing list or hold your mail.

- The FCC has released figures showing the new codeless Technician license has been a resounding success in drawing new people into our hobby. In March of 1987, the FCC announced the enhanced Novice class license allowing Novices to operate in voice mode on 10 meters and 222.1-223.91 Mhz and 1270-1295 MHz. There were over 9,000 Novice licenses issued in April and May of 1987 most of which represented applicants who took the 25 question test before March 21st. After the initial surge, the number of newcomers to the hobby grew at a substantially lesser rate. The hoped for surge in newcomers did not

materialize. On the other hand, the Codeless Technician Class (CTC) has increased the number of first time licensed Amateurs by more than 70%. The CTC took effect on February 14, 1991 with the first license issued on March 12. Most are entering ham radio at the no-code Tech level...and so far, unlike "Novice Enhancement," it shows no sign of weakening. Here are the statistics as released the FCC:

1991	Mar	Apr	May	Jun	Jul	Aug	Total
Nov	1734	2651	1801	1088	1662	872	9808
Tech	882	3025	2858	2112	2932	3180	14989
Other	40	73	55	31	82	69	350
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Total	2656	5749	4714	3231	4676	4121	25147

- Calls in the sixth call district issued as of August 1, 1991 include, Extra- AB6FQ; Advanced- KM6JC; Tech/Gen/ Novice KD6BCK.

- The FCC is contemplating changing Section 97.113 of the rules which prohibit transmissions involving business affairs. The changes would greatly simplify this rule so that regular business affairs could be conducted on Amateur frequencies on a "secondary" -non interference-basis. The idea was originally put forth by FCC Private Bureau Chief Ralph Haller, N4RH, during a speech at the **ARRL** National Convention in Saginaw, Michigan recently. Haller said he was receptive to permitting a third type of non-amateur communications which would be allowed when the ham bands were not being used for normal Amateur communications.

- Words of praise were received from John, N6SZZ, for our Educational Director, Phil, WD0FFX. John asked Phil to give a presentation on Amateur Radio at his Masonic club last month. John said Phil did a superb job and his presentation was well received. Another one of Phil's many contributions to Amateur radio and **SARA**. Thanks Phil, keep up the good work.

- A special thanks to all those who contributed to **The READOUT** this month. Your contributions are most appreciated and welcome. Keep them comin'!

That's it for this month. Enjoy the holidays and don't eat too much turkey. 73, Bob

## Limit HF Power to 100 Watts !

By Doug Hendricks, K16DS

1831 Virginia Ave. Dos Palos, CA.

Editor's Note: The comments expressed in the following article are those of the author and do not necessarily reflect those of the editor or **SARA**. The article is offered as one person's opinion and food for thought. If you would like to express your opinion on this subject, please address your comments to the editor whose address appears on page 2 of *The READOUT*.

This bulletin is for all of the "BIG GUNS" out there. You are wasting a valuable product and you are nothing but greedy! Just because you can afford it, you have an amplifier that runs GOD only knows how many watts.

I propose that the FCC limit Amateur radio operation to only 100 watts. I have been an Amateur since 1976, and I have never owned or operated an amplifier, nor have I run more power than my barefoot transceiver would run.

In my career, I have used a HW 101, a Drake TR4C, and I now use an Icom 735. Not once have I not been able to make a contact when I wanted to. Sure, I had to wait many times to

break through the DX pileups, but I did work them. I cannot believe the QRM that is on the bands because of the presence of the amplifiers and the people who insist on using them.

Just listen to 75 meters some night and you will hear someone say, "Well, I have a little QRM here, so I am going to put on the power and drive them off. By gosh, I was here first and no one is going to crowd in on my frequency." Doesn't this type of operator understand propagation? Most likely the reason for the appearance of the QRM is not deliberate interference, but simply because the skip is coming in due to the change in propagation.

My proposal is for someone who knows how to implement a petition to the FCC asking for a reduction in allowable power output. Think of the benefits to the hobby. There would be a lot more room on the bands, your electric bills would go down, TVI would be less, and your neighbors would probably start speaking to you again.

If you agree, spread the word and let's start a grass roots program to change Amateur radio for the better of all involved. Bring operator ability back into the game, and get away from the idea of only the big sticks winning. Thanks for reading this. I would be interested in any opposing viewpoints as well as replies from those of you who agree.

73, Doug, K16DS @ K6RAU-BBS

## Hot Shot CW Operator

During WW II there was a shortage of skilled CW operators. It seems a beginner was communicating with another station down the line.

Hired right out of telegraph school, the neophyte fancied himself as a "hotshot" operator, so he was keying his bug as fast as he could go when the operator at the other end of the line broke in with, "REND STOW IMA GIRT."

That set the hotshot back a bit, so he repeated the message. Again the other station sent, "REND STOW IMA GIRT". "What in hell is wrong with that operator?" the hotshot asked of the senior operator on duty. "Nothing," said the old timer, "she's saying "SEND SLOW I'M A GIRL." You've gotta learn the difference between R and S and T and L. Didn't they teach you anything in school?" The hotshot rookie didn't answer, he just slowed down.

Tnx WorldRadio & WOLHS.

## ARRL 220 MHz Band Plan

- 222.000- 222.050 . EME
- 222.050- 222.060 . BEACONS
- 222.060- 222.100 CW
- 222.100- ..... Calling freq. weak signal mode.
- 222.100- 222.300 . GENERAL operation CW, SSB, ETC.
- 222.340 -223.380 FM repeater inputs
- 223.340 -223.900 FM simplex or repeater outputs (optional)
- 223.940 -224.980 . FM repeater outputs

1.6 MHz repeater separation split

...Library from page 4 ....station room if we could get one of our members to help build a book shelf. We might even want to build this library in the future with continuing subscriptions to these magazines. If we really wanted to get fancy, Buckmaster Publications has all these issues on microfiche and they are available for a price.

Maybe this topic might be one for discussion at a future club meeting where we could then assess what resources we have available and what quantity of publications we could count on. Your comments would be appreciated. Ernie, K6UVI

## VE Test Sessions Northern California

Date	City	Phone	Notes
9 NOV	Fresno . . . .	408-255-9000	S
9 NOV	Jackson . . . .	209-295-7947	A
9 NOV	Sunnyvale . . . .	408-255-9000	S
14 NOV	Sacramento . . . .	916-483-3293	A
14 NOV	San Carlos . . . .	415-367-7197	D/PR
16 NOV	Cupertino . . . .	408-243-8349	A
16 NOV	Porterville . . . .	209-539-2429	S
16 NOV	Redwood City . . . .	408-255-9000	S
16 NOV	Sacramento . . . .	916-483-3293	A
16 NOV	<i>Sonora</i> . . . .	209-586-4917	A
23 NOV	Fresno . . . .	408-255-9000	S
23 NOV	San Fran. . . .	415-986-5055	A
24 NOV	Hercules . . . .	415-467-4292	A
24 NOV	Sunnyvale . . . .	408-255-9000	S
30 NOV	Fairfield . . . .	916-662-0801	A
30 NOV	<i>Stockton</i> . . . .	209-952-5996	A
1 DEC	Chico . . . .	916-342-1180	C
7 DEC	Concord . . . .	408-255-9000	S
7 DEC	Cupertino . . . .	408-243-8349	A
7 DEC	<i>Modesto</i> . . . .	209-883-2968	A
7 DEC	Novato . . . .	415-897-8950	A
12 DEC	San Carlos . . . .	415-367-7197	D/PR
14 DEC	Oakhurst . . . .	209-683-8430	A
14 DEC	Sunnyvale . . . .	408-255-9000	S
21 DEC	Cupertino . . . .	408-243-8349	A
21 DEC	Redwood City . . . .	408-255-9000	S
28 DEC	Fairfield . . . .	916-662-0801	A
29 DEC	Sunnyvale . . . .	408-255-9000	S

Note: Most walk-ins OK, call the contact number for time & location. The following items are required at all test sessions:

- 1 - Test Fee
- 2 - Two forms of ID
- 3 - The original and a copy of any Amateur license you now hold.
- 4 - Copy of any pending Novice 610 form.
- 5 - Calculator, pen and pencil

- An 'A' is an ARRL/VEC test.
- An 'S' is a Sunnyvale VEC test
- A 'C' is an Chico-GEAR VEC test
- A 'D' is a DeVry-VEC test.
- A 'PR' is a Pre-registration only call the number given.

If you hold an Extra or Advanced class license and would like to be a VE in this area, contact Chet Jensen, W6XK, 883-2968 for more information.

### Good Luck!

**Next SARA Meeting  
November 19, 1991**

## Phase III-D Satellite Set for launch October '95

By Tim Bosma, AB6FL

On July 15th, ESA, the European Space Administration, announced that AMSAT's Phase III-D spacecraft and mission has been approved for launch aboard the Ariane 502 flight. This flight is currently scheduled for launch in October 1995 and will be the second test flight of the new Ariane-V launch vehicle.

The Ariane-V has been designed to eventually carry humans into space. At the May 1991 design meeting in Marburg, Germany, AMSAT VP of Engineering, Jan King, W3GEY, dubbed Phase III-D "The Falcon" possibly due to the proposed 6.7 meter span of the extended solar panels.

The spacecraft will be seven sided and will weigh about 1100 pounds with a diameter of 3.2 meters (10.5 feet) and a height of 650 mm (25.6 inches).

With the large solar array, Phase III-D will be able to support higher powered transponders. For example, at the Marburg meeting, Konrad, DJ1EE, proposed the construction of 200 to 300 watt transponders for 2 m and 70 cm. This contrasts with the current power of 50 watts PEP, 12.5 watts average for Oscar 13's mode B transponder.

There were also lengthy discussions about antennas for the new spacecraft. The higher transponder power levels along with better antennas should improve conditions for earth sta-

tions and make it easier to work the satellite with smaller antenna arrays and lower uplink power. It should be noted is that this is a Phase III spacecraft, which will not be in a geosynchronous orbit, but a high altitude elliptical orbit much like Oscar 13. Future Phase IV spacecraft may be geosynchronous spacecraft.

Due to the high cost of building and launching such a spacecraft, it may a long time before amateurs are able to enjoy the benefits of a geosynchronous satellite.

When you read through the roster of those attending you realize this is truly an international effort. Participants include members of AMSAT in the United Kingdom, Germany, South Africa, North America, Spain, Japan, Finland, Australia and representatives of the IARU.

More details about the Phase III-D spacecraft design can be found in The AMSAT JOURNAL, July and September 1991 issues, or you can help support this project by joining AMSAT. In either case, a call to AMSAT-North America at (301)589-6062 will provide you with the information.

If you're considering becoming a satellite enthusiast, and need help or want more information I can be reached via packet at the N6REB-2 BBS.

73, Tim, AB6FL

## SARA "Early Bird" Membership Renewal

The SARA membership year runs from January 1st through December 31st of each year. The rate structure is usually reviewed at the December meeting of SARA with increases, if any, based on the general health of the treasury and anticipated expenses vs. the estimated number of members. Running a club is just like running a small business and we must have the income to pay our bills.

Over the last three years we have raised the dues a dollar a year to help keep up with increased costs and it appears this year will be no exception. So, here's your chance to beat the probable increase. Renew now, before January 1, 1992, and you pay the 1991 rate.

As an added bonus, those of you living more than 150 miles from Modesto can renew for 1992 for just \$10.00 under the new rate adopted this year. So, what are you waiting for? Send in your check or money order (along with the a completed membership form below) to the club's Post Office Box. Your renewal must be received prior to December 31, 1991 to qualify. This also helps the club over the roughest part of the year when the treasury is the lowest. Thank you!

### DUES: (1991)

Full Membership .....	\$22.00
Associate (Unlicensed) .....	\$11.00
Student (Up to Sophomore in college) .....	\$11.00
Family (For head of household) .....	\$22.00
\$11.00 each for the next two family members living in the same home.	
The fourth , or more, family members living in the same home are FREE.	
Out of Area .....	\$10.00

(More than 150 miles from Modesto)

### SARA MEMBERSHIP APPLICATION" "Early Bird Renewal 1992"

Date \_\_\_\_\_

Name \_\_\_\_\_ Call \_\_\_\_\_

Address \_\_\_\_\_ ARRL Member? \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_ Home Phone \_\_\_\_\_

Bus. Address \_\_\_\_\_ Bus. Phone \_\_\_\_\_

Occupation \_\_\_\_\_ Date of Birth \_\_\_\_\_

Class of License \_\_\_\_\_ Year First Licensed \_\_\_\_\_

*Mail your check or money order payable to SARA, and mail it to P.O. Box 4601, Modesto, CA.*

**FOR OFFICIAL USE ONLY:**      Membership Year 1992      Entered Roster (   )

Treasurer (   )      Welcome/Autopatch Letter Sent (   )

# 1992 Callbooks at Club Discount Prices North American & International

The 1992 **RADIO AMATEUR CALLBOOK** will be available in late November. **INSIDE DX** once again will sell these new volumes at a discount price. Members of **SARA** are eligible to buy the callbooks at quantity discounts and save as much as 25% depending on the number of books ordered. The normal retail price for the 1992 Callbooks are \$29.95 each or \$59.90 per set. The price through **SARA** would be:

<b>NORTH AMERICAN CALLBOOK.....</b>	<b>\$25.50 ea (1-2)</b>
	<b>\$24.50 ea (3-5)</b>
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<b>INTERNATIONAL CALLBOOK.....</b>	<b>\$25.50 ea (1-2)</b>
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<b>SETS (One each of the above) .....</b>	<b>\$49.00 set (1-2)</b>
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<b>CALLBOOK SUPPLEMENT</b>	
<b>(Available in June '92.....)</b>	<b>\$ 8.50 (reg \$10.00)</b>

These special club purchase prices *INCLUDE* the shipping charges via 4th class book rate. If you would like to take advantage of this offer you must call AI, N6SAE, at 209 523-4485 and place your order before November 30, 1991.

After November 30th, AI will count the number of orders received in order to determine the price break the club will receive. He will then recontact by phone those who placed orders and tell you how much money to send in. The books will be ordered on December 15, 1991 and you must get your checks or money orders in before then. Do not send your money until AI calls you. **Mail your check or money order directly to AI Dionizio at 3932 Pall Place, Modesto, CA. 95355. Make your checks payable to SARA.**

The books will be shipped to AI and he will notify you when to they arrive and how to pick them up. If you have any questions, please contact AI, N6SAE.

## Grid Squares Latitude and Longitude

If you have been listening to the low bands, especially during contests, you may have noticed in addition to the normal exchange of information, a number preceded by a couple of letters. What you are hearing is any exchange of grid squares.

Grid squares are just a way of dividing up the surface of the earth into 1 degree latitude x 2 degrees longitude rectangles. The grid square designator consists of two

letters and two numbers. It's a shorthand way of describing your general QTH. For example, W1AW in Newington, CT is in grid square FN31.

You can determine your grid square identifier from the QST article, "VHF/UHF Century Awards," published in January 1983, pp 49-51.

The ARRL publishes a map that shows the grid squares for the continental United States and most of Canada. This 12x18 inch map is available from ARRL HQ's for \$1.00. Here in the Modesto area we are in the CM97 square.

## How to deal with RFI complaints from neighbors

By Bill Walton, KJ6EO

The most important step to be taken in dealing with an RFI problem is to cooperate and be courteous with your neighbor. Every neighbor is different, some are extremely angry about the interference and others are very cooperative. The cooperative neighbor usually can be dealt with easily, but it's the other angry yelling neighbor that is the hardest to deal with.

Over the years, it seems that most of my RFI problems have aroused the worst neighbors. I have been yelled at, had my life threatened, and even had my personal property damaged. After thinking about the problem for a while, I decided that it was time to out think these nasty neighbors and maneuver them intelligently so that they would be willing to cooperate with me in resolving the matter.

Usually when one of these nasty neighbors comes over, he has had a terrible day at work, just had an argument with his wife, bit by his dog etc. He decides to retreat to his last place of peace (tv, stereo, phone or other home entertainment device).

But instead he has a front row seat in your Ham Shack which just burns him up to the max. The voice raises, the feet stomp and there is a loud knock at your door. As the door opens you hear "Your #@!&%" radio is interfering with my TV, Stereo, Phone ETC.). This moment is where you begin to control the situation. NEVER argue as you will lose control of the situation and the cure.

The response that has worked the best for me is "OK sorry, I did not

know that my ham radio was interfering with your equipment. I will stop transmitting and come over to see you tomorrow and we can discuss the matter.

Usually, after your neighbor cools off he will feel like a jerk for yelling at you and apologize. The only thing that your neighbor probably knows about ham radio is that he is receiving it over his home entertainment devices.

Casually begin to talk to your neighbor about ham radio. Starting with public service usually gets his attention. Explain how hams have saved many lives and assisted with communications in times of disasters all over the world. Explain that ham radio was created to have a resource of trained radio operators ready to assist in these times of need. Let him know that if a disaster occurred where you live, that you would be able to get information through when all other communication services are down.

Another important step is to tell your neighbor how hams have to study order to get their licenses. A short talk about the written tests and the code tests will most likely impress him and convince him that you do indeed know what you are talking about. It is now time to explain why some devices will receive RFI and why some will not.

Tell your neighbor that most electronic home entertainment devices are not properly filtered against RFI due to lack of concern by the electronic manufacturers who make them. Explain that for pennies they could have prevented the whole problem by including a few capacitors and chokes that would have RFI proofed their product.

Now, it is time to tell your neighbor that you know how to most likely resolve the problem with a few

simple devices. Explain that simple chokes, capacitors, and high pass filters are available at your local Radio Shack store which will reduce or eliminate the RFI problem. Follow the instructions on the package on how to install the devices. I have installed them in the manner described below with good results.

On TV sets install a snap together choke (pt.1) on the power cord of the set. Wind as many turns as you can get on the choke. The more turns the choke has the better it will perform in reducing RF on the line that it is attached to. Install a high pass filter (pt.2) into the antenna feedline as close to the set as possible.

If the TV has a VCR, install the high pass filter into the antenna feedline as close to the VCR as possible.

Also, place a snap together choke on the power cord of the VCR. If the TV has a cable converter box, install a snap together choke on the power cord of the converter box.

On stereos install a snap together choke on the right and left speaker wires as close to the amplifier as possible. Install another snap together choke on the power cord of the stereo amplifier. If you still receive RFI on the stereo, it maybe necessary to install snap together chokes on the powercords of all the components in the system. You can try switching the input on the stereo amplifier back and forth from aux-tuner-tape to locate the rf entrance source. Then install a snap together choke on all lines in and out of the effected unit.

On phones, install a snap together choke on the telephone line as close to the telephone as possible. If the choke does not eliminate all the interference, (with your neighbors permission) open the case of the telephone

See 'Neighbors' page 11

## How to renew your Amateur License

Complete an FCC form 610 and mail it with a copy of your current license to: **FCC P.O. Box 1020 Gettysburg, PA. 17326.** 610 forms are available from the FCC or **SARA.** Include an SASE. If you file before your license expires, you may continue to operate until your renewed license arrives. You may not operate if you send it in after it expires.

You may apply for renewal anytime during the term of the license, but the FCC suggests waiting until 90 days before it expires. If you change address, you must notify the FCC on a 610 form. The FCC will make the change and automatically renew your license for another 10 years from that date. There are no fees imposed for Amateur Licenses. One more thing, don't forget to sign the 610 form before you mail it.

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**....Neighbors** from page 10 ... and install two 88mh chokes (pt.3) one in the (Green, or tip lead) and one in the (red, or ring lead). These chokes will eliminate RFI in all but the worst cases.

If you follow these suggestions, I am sure you will have positive results. I do not claim to be an expert on RFI matters, or on how to deal with angry neighbors. However, I did want to share with you my opinion on how to deal with these matters. Thanks to Mike Curtis WD6EHR of the Telephone Man Communications Systems for his information on the installation and use of the 88mh chokes.

The parts required are available at your nearest Radio Shack. Snap together toroid choke core are part #273-104 (pt.2). High pass filters, 75 Ohm are part #15-579. 300 ohm is part #15-581 (pt.3). 88mH choke available through Amidon Associates. 12033 Otsego St. North Hollywood, CA. 91607 (818) 760-4429.

## "The Phone is Ringing Honey! "

By Rich Lawton, N6GG

We were working in the yard the other day when my wife Velma said, "I hear the phone ringing, but it sounds like it's up on top of your tower!" Well, we don't have a phone on top of my 100 foot tower.

In the first place, I'm a CW man! Ain't no way you gonna get me to put a phone on top of my CW tower. Looking up we saw a buff-colored bird sitting on the boom of my 20 M yagi. It was a bit larger than a robin, but with a long beak. It lets out a shrill call that sounds like a KW Amtor station on FEC mode. Then it starts pecking on the boom which sounds like the old Ma Bell ringers. Well, this clown must leave immediately. I don't take to birds ringing my bell.

I threw a rock (left-handed), and it hooked away and missed. I ran inside turned the rotor and it flew off only to return in a few minutes. Hm-m-m! Shrieking the Amtor FEC mode, she gives me another Ri-i-i-ng. After several more rings, it gave up only to return the next day with more of the same.

Gotta do something quick or my bell-ringing beam will become radar tinsel. Ah-h-h! Bright tinsel.....bright idea.

Quick, a trip to the Pine Grove Drug Store to pickup two very real-looking plastic snakes about two feet long with all the appearances of being ominous and squiggly. They were in the same box as the giant spiders toys... for weirdo kids, I guess.

Armed with lacing twine and diagonals, plus the two snakes stuffed in my shirt, I donned my safety belt and headed for the view at the top of my tower. I looked for any kind of damage and found none. I proceeded to tie one of the plastic snakes to the rotating mast about four feet above the boom of the 20 M beam where the boom guys attach to the mast.

Attempts to tie the second snake were in vain when it wriggled from my grasp and fell to the ground. Excellent test, because it didn't break. It will be my back-up snake in case the first snake gets it's bell rung.

Results: **FANTASTIC!** My first string snake has done his job. No more Ma Bell Clone ringers. If it comes back, I might try the giant spiders.

(Thanks Amador County ARC Newsletter, May 1988)



## Happy Holidays

# Calendar

- Nov. 16, 1991 . . . . . VE Testing in Sonora . . . . .900 am  
Nov. 19, 1991 . . . . . SARA Monthly Meeting . . . .730 pm  
Dec.7,1991 . . . . . VE Testing in Modesto . . . .900 am  
Dec. 17, 1991 . . . . . SARA Monthly Meeting . . . .730 pm  
Election of 1992 Officers  
Jan. 21, 1992 . . . . . SARA Monthly Meeting . . . .730 pm  
Feb. 18, 1992 . . . . . SARA Monthly Meeting . . . .730 pm

**SARA** meets the third Tuesday of each month (except holidays) at the Stanislaus County Administration Building at 12th and H Streets in downtown Modesto. The meetings are held in the lower-level conference room starting at 730 pm. Visitors and interested parties are most welcome.

**SARA** is an ARRL Affiliated Club and is affiliated with Stanislaus County and the City of Modesto RACES.

The club owns and operates three FM repeaters using the club station call of WD6EJF. Frequencies are 145.39 MHz, 224.14 MHz & 440.225 MHz. The club's digipeater, WD6EJF-1, operates on 145.79 MHz. All repeaters and the digipeater are located on Mt. Oso, 18 miles SW of Modesto at an elevation of 3400 feet in the Coast Range mountains. **SARA** conducts informational nets each Thursday evening at 8 pm on the 2M and 220 repeaters.

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**To:**

**The Next SARA Meeting is November 19, 1991  
at 730 pm & You're Invited!**