

INDEX Cimarron QCWA Salem 17 SCARS Altus Q. R. ZEDD Great Plains 13 MORI ACARC VHF 14 COCO Kay County 21 15 OCAPA 22 EARS

### HELP Wanted: File Comments, Save Towers

A Radio amateurs who have experienced zoning and other state or local restrictions on erecting effective amateur antennas: Your help is urgently needed! The League needs you to file comments with the FCC that give a factual account of problems you've encountered in obtaining permission from local authorities to erect your amateur antenna.

In mid-July, ARRL filed an extensive document with the FCC that requested the Commission to issue a public declaration that state and local authorities may not prevent antenna effectiveness. Such onerous restrictions inhibit the federal objectives of the FCC's licensing of amateur radio stations; therefore, the Commission should declare that such regulations are preempted. The FCC has since designated the League's request as "PRB-1," and established a "pleading cycle." Comments are now due November 9, and replies to comments are due December 14.

A notice requesting comments on the League's "Request for Issuance of Declaratory Ruling" on antenna zoning appears in the September 14 Federal Register. The notice says in part: "While it is not required that this notice be published in the Federal Register, the Register is being used in this instance as one additional method of seeking comments from the public because of the potential impact this matter could have on persons outside the field of communications."

It is critically important that as many radio amateurs as possible file comments on PRB-1. ARRL's request was preceded by a nearly identical request by United Satellite Comunications, Inc. (USCI). USCI has found that its marketing of small, four-foot in diameter television receive only (TVRO) "dish" antennas has been severly restricted by state and local regulations. The problems TVRO owners have been encountering are similar in

nature to radio amateurs' problems.
However, USCI's request has drawn heavy opposition from organizations that represent local government interests. (e.g., the American Planning Association, the National League of Cities, the City of New York, etc.) A common theme that runs through the comments of most of the opposition is the claim that USCI has failed to demonstrate that there is indeed a serious problem.

ARRL expects similar opposition to its request, PRB-1. That's why it is so important that individuals and clubs present the FCC with case-histories of

problems hams have faced in getting or being denied permission to erect effective amateur antenna systems. Send an s.a.s.e with 88¢ postage to ARRL Hq. and ask for the PRB-1 mateial, which will give you our original filing and instructions for filing comments. The procedure for filing comments is simple: send one original and four copies of your comments to: The Secretary, FCC, Washington, D.C. 20554. The first page of your comments should include the heading, "Comments in Response to PRB-1." They must be received be later than Nevember 9

no later than November 9. The League's request carries with it some risk in that if the FCC denies that preemptive relief requested, it could embolden local municipalities to increase its regulatory pressure on amateur radio. At the same time, however, it has become clear that the present course of fighting antenna regulations in the courts has not gained us much ground. Litigation is time-consuming, expensive, and its legal effect can easily be limited to the facts surrounding the particular case. What we urgently need is for the FCC to act positively on PRB-1. The FCC should issue a declaratory ruling exercising its federal preemptive authority over any state or local regulation that precludes or significantly inhibits effective, reliable amateur communications and which is not clearly necessary to insure the safety of the installation.

A Happy birthday Uo-SAT-OSCAR 9! Martin Sweeting, G3YJO, at the UoSAT Spacecraft Control Center, University of Surrey, England, reminds us that UO-9 (also known as UoSAI-1) was launched at 1127 UTC on October 6, 1981, from Vandenberg Air Force Base, California into a 554 km sunsynchronous, polar Earth orbit by a NASA Delta 2130 launch rocket.

A "mystery satellite" has been heard on several occasions. Paul Wilson, W4HHK, of Collierville, Tennessee, says that he has heard satellite signals on 2301.0 MHz. During the two-hour period, on October 5, Wilson heard a steady carrier with Doppler shift on 2304.0 MHz. At 0212 UTC the dish heading was 52 degrees azimuth, 20.5 degrees elevation. The signals and headings were confirmed with WA4HGN. 80 miles away. W4HHK uses an 18-foot dish and WA4HGN has a 28-footer. Signals were 20-30 dB out of the noise.

The signals were heard again at 1754 UTC the same day, in the same general heading. If anyone is interested in these mysterious satellite signals, contact Wilson at Box 73, Collierville, TN 38071, Tel: 901-853-7373.

The ARRL Letter

### CIMARRON A.R.A.

CIMARRON A. R. A.

New officers were elected at the Nov. 5 meeting. They are as follow-President- Jack Day, NN5% Vice-president- Leo Peil, KA5DUO Secretary- Reeta Martin, KA5SLY Treasurer- Dede Bailey, N5FUN Editor- Ruth Simpson, N5FUR Activities Chairman- Betty Day, KA5RTW

Congratulations to each and every one. Special thanks to Ruth, N5FUR for taking the editors job and getting me off the hook! The club news should be making the C & E with more regularity.

Special thanks also go to Ed, N5GOR for arranging our new repeater location. The 145,45 repeater is up and running again after being off the air for a couple of months. The basic repeater is the same with the addition of a new set of Wacom WP-641 duplexers and a new four bay antenna. If you haven't tried the repeater lately you are in for a real surprise! Stations from Newcastle to Anthony, Ks. can make it on 10 watts with respectably guieting signals!

Technical Dept. - Fred, N5FOU just finished his new super heavy duty bench power supply. He claims it will do anything from light welding to electro-plating.

The next regular club meeting is Dec. 3 and everyone is invited to attend.

IC-730A, \$450. Home brew 2M amp using a single 4CX250R, \$225. 2 brand new 4CX250R's with new sockets and chimneys \$200. Call 227-2061 after 5 PM.



WANTED: A parrot who will sit by the rig all day and yell CQ?

CB Charlie asked, "Hey, Van Gogh, have you got your ears on?"

Getting a QSL makes you feel like a pancake that just had the syrup poured on.

# SCHEDULED VOLUNTEER EXAMS (ARRL Only)

DATE		LOCATION	CONTACT
Dec.	22	Fairview	NM5Z
Jan.	26	Bartlesville	WB5SZQ
Jan.	26	Vici	KC50U
Feb.	16	Ada	NG5G

# WA5CZN says,

# Are You Rundown?

Spiritual Batteries Need A Charge?

# GET REJUVENATED



At The Exciting New

Messiah Ministries Church

Got a Problem? Call Johnny Ore 632-5098 S.W. 27th and Blackwelder Sunday 10 A.M. and 6 P.M. Wednesday 7 P.M.

## THESE CORA MEMBER CLUBS PROMOTE AMATEUR RADIO

	The state of the s
1 AERONAUTICAL CENTER ARC MEETS: 7:30pm First Thursday Fli	ght.
Standards Bldg., FAA, S. Macart	hur
DD WDECVN Inch Iman	677-8537
PR WESSYN JACK IMAH	700-2539
P NOADL HOLLY HOLCOMD	722-1740
PR WB5SVN Jack Iman VP N5ABL Holly Holcomb Sec WD5JPW Gloria Seignious Tr WA5CJG Bob Pace EDITOR: Gloria Seignious, WD5JPW	376-3569
PDITOR: Gloris Spignious WD5.IPW	722-1740
EDITOR. GIOTTA GOLGHIOGO, "DOOT"	
2 OKLAHOMA CENTRAL VHF CLUB	
MEETS: 10:00am Third Saturday.	Red Cross.
10th & Hudgon (Back door) Okla (	"ity
DR KDSIS Jerry Wetmore	524-5080
VD KASMYV Chris Sartorious	728-0058
SE K5.IR Joe Buswell	732-0676
TR W5KE Ellard Foster	789-6702
PR KD5IS Jerry Wetmore VP KA5MYY Chris Sartorious SE K5JB Joe Buswell TR W5KE Ellard Foster EDITOR: Joe Buswell, K5JB	732-0676
3 MID-OKLAHOMA REPEATOR, Inc.	
MEETS: 8:00pm First Tuesday. Of	kla City
EOC. 4600 N Eastern	
PR N5EPV Bob Allen VP N5GRA Bob Gambel	Unlisted
VP N5GRA Bob Gambel	672-9294
SE M5HII Elise Northern	376-4287
TR W5KOZ Sid Gerber EDITOR: Elise Northern, W5HII	737-1050
EDITOR: Elise Northern, NSHII	376-4287
	COLLEGG
4 OKLAHOMA CITY AUTOPATCH ASS	
MEETS: 7:30pm Third Tuesday. O	ntla City
Fire Training Center, 800 N Po	700 1457
PR WB5NDO Kathy Whited	276 4207
VP N5GWZ Bob Northern	700-4281
SE NoDLM Vicki Adkins	744-0190 341-7030
PR WB5NDO Kathy Whited VP N5GWZ Bob Northern SE N5DLM Vicki Adkins TR KE5M Ron Recer EDITOR: Bob Northern, N5GWZ	376-4287
EDITOR: BOD NOTCHEFR, NOGWZ	310-1201
5 OKLAHOMA UNIVERSITY AMATEUR	RADIO CLUB
MEETS: 7:30pm Second Tuesday (	
119 Wilson Center, 1334 S Jenk	ring
PR KA5BAY Luke Noah	325-1775
VP KE5N John Wustenberg	325-2382
PR KA5BAY Luke Noah  VP KE5N John Wustenberg  SE KA5COI Peter Richeson  TR KA5LZN Greg Smith	329-3217
TR KA5LZN Greg Smith	366-1641
TR KA5LZN Greg Smith EDITOR: Greg Smith, KA5LZN	366-1641
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13 KAY COUNTY AMATEUR RADIO CLUB
MEETS: 7:00pm Third Thursday
Ponca City EOC
                                  765-2227
     NSHIC
             Paul Davis
                                 363-2526
            Marsh Pronneke
    WA5UBO
                                  762-8616
S/T KD5FX Dave Land
                                  762-8616
EDITOR: Dave Land, KD5FX
14 CIMMARON AMATEUR RADIO ASSOCIATION
MEETS: 7:00pm Second and Fourth Mondays.
Place varies. See club section.
                                  227-3462
            Jack Day
     NN5Z
                                  886-2996
     KASDUO Leo Pell
                                  227-3013
     KASSLY Reeta Martin
     N5FUN Dede Bailey
EDITOR: Ruth Simpson, M5FUR
                                  227-2791
15 SOUTH CANADIAN AMATEUR RADIO SOCIETY
MEETS: 9:30am Second Saturday. Red Cross
Bldg., North OU Campus. Norman
                                  321-7570
     KD5IT Dave Engle
 PR
                                  329-4667
      N5BEW Ken Esadooah
                                  364-4301
      KA5AXO Joe Green
                                  329-7485
      WB5RXZ Mote Bateman
EDITOR: Sam Barrett, WASRPP
                                  321-2601
16 EDMOND AMATEUR RADIO CLUB
MEETS: 7:00pm Second Monday
                               See club
section for location and type.
                                  Unlisted
     WB5UIY Stan Van Nort
                                  942-7148
     WB5MLX Glen Cochran
S/T WD5DYJ Kay Northcutt
                                  755-4672
EDITOR: Mark Northcutt, WD5DYI
                                  755-4672
 18 GREAT PLAINS AMATEUR RADIO CLUB
MEETS: 7:30pm First Tuesday
Civil Defense room, Woodward courthruse.
    WA5PLW Windle Hatchett
                                  753-3561
             Lewis Patterson
    W5KEK
                                  2 +-2319
             Jim Phares
    K5YZK
   KA5SDE James Rockhold
 EDITOR: Jim Phares, K5YZK
 10 EDMOND AMATRUR RADIO SOCIETY
 MEETS: Varies. See club section
                                  751-3620
      KBØOU Cal Callison
 PR
      WA5ZGM John Keeling
                                   340 - 1253
 VP.
 S/T KC5GN Bill Wright
                                   341-6076
                                   340-1253
 EDITOR: John Keeling, WA5ZGM
 20 ARDMORE AMATEUR RADIO CLUB
 MEETS: 7:45am Saturday. Corral Resturant
 INFORMAL: Every Wednesday. 221 9th NW
                                   223-9543
      WD5FZD John W. Merlyn
                                   223-8252
      WA5IJA Gene South
 VP
                                   226-6816
      W5JCX jim Chilcoat
  SEC
      W5BLW Charles Dibrell
                                   226-0589
 EDITOR: Glenn Hamilton, KE5ES
                                   226-4379
 CENTRAL OKLAHOMA RADIO AMATEURS, Inc.
 MEETS: 7:30pm Fourth Tuesday. OKC Fire
 Training Center. 800 N Portland
                                   799-1457
      WN5NWX Reggy Whited
             D. C. Macdnald
                                   672-4947
     K2GKK
             Jim Buswell
                                   236-0368
     N5BEQ
  SE
                                   751-3620
       WDOFTM Linda Callison
  TR
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      MANAGING EDITOR:
                            737-1044
      Joe Harding, WASZNF,
      CIRCULATION MANAGER:
      Bob Graham, WB5NSV,
                             677-8685
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#### THE REVENGE OF DALLAS

No, I am not talking about J. R. doing in somebody or even somebody shooting J. R. I am afraid that I just don't have time to follow the plot on this southwest soap opera (I have to get updates from my father, a faithful watcher, just so I can be conversant with a few of my friends). I am talking about the revenge of the Dallas flea market. Actually, I didn't get stuck with someone's revenge, just a real challenge.

Buying in the flea market is a statistical process. Sooner or later, your number will come up. Now, judicious shopping in the flea market will keep that lemon from becoming a permanent (and when you try to unload it in the next flea market and there are no takers, I mean permanent) fixture in your local junk collection. But every now and then, well, just like Halley's Comet which comes around every now and then, that bright purchase of a decade soon becomes a burned out cinder. It just takes a little information.

I have purchased hundreds of items in estate sales, sidewalk sales, flea markets sales in locations that range all the way from Atlanta to Chicago to Dayton (Mecca) to Dallas. There is an inverse relationship between getting stuck for the count and knowledge. He who has knowledge in the flea market has both dollars and power. One of the real thrills in the Dayton fleamarket is to be among the "early" birds about 6 in the morning or so and wander among the freshly laid out goodies and select those items untouch and pawed by the great unwashed who usually show up about 11:00 a.m. or so. Believe me, by Sunday afternoon, the merchandise has been plenty pawed and scratched and already suffers from the marks of thousands of fingerprints. And at Dayton, they are all different. I have known people with the right amount of knowledge shashay into the flea market early and make a couple of judicious buys. These items are then immediately transferred to their flea market table and the price is raised and the takers come in. It is possible to double your money and have equipment left over. This depends upon a few things such as availability. If you buy the only one of the item in the whole flea market and people want it, they will have to come and look at your table. This is the height of avarice. For those who only are a little avaricious, you can find that item and immediately turn up that friend who can't live without it. Now the dilemma begins. Do you sell it to the "Friend" (who might be capable of putting it on the block later) at no profit or do you resist and place it for sale on the open market knowing that your friend might start pencilling your number and name in the restroom of the local gay bar. Well, if it can be suitably and satisfactorily negotiated, you sell it to the person. Like K5JB says, something is worth whatever somebody else is willing to pay for it. And he then proved it by buying a radio for about \$100.00 above the most recent asking price. Actually, JB is right and both the seller and purchaser are happy.

I don't usually put something back on the block immediately. I want to look at it and savor it. However, sometimes having it is really all that is wanted in the first place. The decision to purchase is met by an equally quick decision to return it to the seller. A friend who remains nameless takes the record for this kind of rental. He bought a radio, then upon reflection immediately offered it back to the seller for \$50.00 less. In all, the radio was

titled in his name for all of 2 minutes, only 30 seconds of which was spent observing the new purchase and the other 90 seconds spent negotiating a return sale price.

The cardinal rule in the flea market is "Remember, it is true that somebody does not want it already." Oh, you hear them all, "I just cleaned out the shack and am trying to get rid of a few things. " Or "The wife won't let me keep it." I mean, what kind of chauvanist would blame his wife. Now, I have been known to use the excuse myself that I just acquired a new piece of equipment and need the (a) space, (b) money or (equipment. This is legitimate if it is true. I don't like people who are having clearance sales of "everything must go!!" Somehow, I don't think that I will ever let "everything go." I guess this is because I don't really trust anyone who is giving up electronics or amateur radio. Now, if they give up talking on the radio, that is a different story and I might even be a little sympathetic. But even if I don't use the radio much, I still want one just in case I want to. I guess my IC-751 is a case in point. I have observed this radio from afar. It is really neat. I wanted one. Nevermind that the IC-720 that I had was perfectly adequate for everything that I was using it for (about once a month to talk to STillwater or maybe an occasional CW contact). So I think that it is also a legitimate excuse to buy something to merely exercise the perogative of ownership. Money (or a trade in) can buy some forms of happiness.

Sometimes old values die hard. The recent increase in the number and types of transceivers is a case in point. When I was a novice, some 21 years ago, Collins equipment was just about the tops. Only the top notch operators had it and could afford it. I, of course, could not. Now we are confronted by radios that do everything in a shoebox that used to take a basic transceiver and 75 outboard boxes and still the manufacturers are not satisfied as they come up with more and more ideas to cram in smaller and smaller boxes. Whew! I think that I could probably live without a few of their ideas like Transmit incremental tuning. I mean, come on. Is it really that useful? Other things, like filters, notch filters, power control, RIT, and the ilk, those can help. And some of the noise blankers built into some of the equipment makes the difference between a successful contact and the QSO going into the black hole. We now can ignore certain levels of line noise around the house with impunity. The noise blanker takes it out.

So, after having spent all this time looking at KWM2's and 32S1's and the ilk, it is a little painful to walk past these items with rock bottom price markings in the flea market. The thoroughly modern transceiver puts the thoroughbred transceiver to pasture. And the prices that I have seen are obscene. They have sunk to the depths.

Occasionally something comes along that beckons to me out of the recesses of my novice experience. This is the Hallicrafters or Drake equipment. Boy, would I have liked to have had a Drake 2B. It is hard to walk past this stuff using the frame of reference I formed when first licensed. Sigh. Flea Markets change so much when they stay the same. I actually think that much of this stuff has no purpose other than to travel from one fleamarketeer to another, sort of a universal junk collectors currency. Nobody ever makes the stuff work. They just haul it to the next flea market and "spend it" just like dollars. And sometimes you even get change. . . for something else.

Micheal Salem N5MS

Your antenna, that is. Height can make a difference. Oh, I know that many of you work with marginal antennas that are probably tied to a tall sunflower in your front yard and get contacts all over the world, but that is just luck, and a lot of listener's skill. But we all harbor dreams of the 75 foot antenna and the triband beams (or monobanders). That is what it takes sometimes to crack the pileups or even talk to Arkansas when the band is rotten. The fact is that working with a tall antenna is easier and a lot more fun than working with the 20 foot dipole. It just depends on where you want to talk. And this is where the old saying "Talk is cheap" doesn't apply. You must peel off certain bills with the multiple zeros on the denominations to make it really worthwhile.

So what's the problem? Well, if you happen to have a neighbor next door who doesn't understand the tower and monobanders and he finds a sympathetic and political ear downtown, your multiple height antenna may find itself nearing extinction. This is a situation that has repeated itself over and over since the beginning of the existance of amateur radio. Diplomacy is always a first line defense (or offense if you catch them early enough), but the fact is that many city councils do not have any sympathy when dealing with the amateur radio operator who wants an antenna system that is in excess of the local height restriction. What to do? Well, first, if you contemplate moving into a neighborhood, a little planning is always helpful. Just bought a new dreamhouse? Ask your realtor (or the purchaser) for a copy of the restrictive covenants to determine if there are any restrictions that might preclude your use of an outside antenna. Many is the amateur who moved and asked questions later only to find himself limited to a small tiny antenna or no antenna at all. Most of these restrictions are private and were made on the property by the developer at the time that he had the property platted into lots and sold. For the most part, these private restrictions can be enforced. And who can enforce them? Generally, any landowner within the development. What can you do? Look before you leap. In this instance, hindsight is 20 - 20 and it will do you little good. Since the language of these restrictive covenants vary from plat to plat, there is no general statement that can be made with any application. You should check with a lawyer.

Once you have gotten past this private hurdle on your way to the dream antenna installation, you should check to see what height or specific restriction are prescribed for the property that you intend to buy. These zoning restrictions also have as many variations as a dog has fleas and can be just as pesky. Many of these height limitations are blanket. You are only allowed so many feet and that is it. The operation should be two fold here. First, a lot of city inspectors don't go looking for this kind of trouble. I mean, there are enough things for them to do without measuring the height of amateur radio antennas. Frequently, if the neighbors never complain, then the issue never comes up down at city hall. The result is that it would probably be a good idea to walk around to the neighbors and discuss with them what you are going to do. They will appreciate and once they have some idea of what is going on and that you took the time to ask them, you might find them agreeable, if you are tactful. At least give them a chance to say yes.

So, you have got the neighbors on your side and you start building until you find that you need a permit. Well, this starts another treck down to City Hall to pick up the permit. Now you have it and you are ready to go. Unfortunately, the city has a blanket height restriction of 35 feet for all structures including the amateur radio antenna. Can you go above the height of 35 feet? Well, it depends and it points up an important problem for amateurs and that is the rapid growth of local municipal restrictions on height

that threaten or kill the construction of an amateur antenna. Unfortunately, we can not expect the locals to appreciate or even understand what amateur radio antennas are or even what they do. No amount of explanation of good deeds or emergency preparedness will dissuade the city council from its decision especially in the larger cities where the councilmen are used to dealing with groups and saying no. Besides, who can afford the cost of a full blown presentation when talking to the local governments. And if you lose and you want to litigate. Forget it, unless you are made out of money.

That is why a recent request to the FCC may offer some help, but only if all amateurs will get together and make their views known. And those views can make a difference. The recent experience with the so called "code-free license" is a perfect example of this. The Commission axed the proposal on the basis of the numerous comments filed that opposed the creation of the service even though it had been "assumed" that it would pass in some form or the The same is true of the ARRL's recent other. request for the issuance of a declaratory judgment declaring a limited preemption by the Commission of local control of amateur radio antennas. The suggestion is that the City cannot solely regulate height until it is related to an issue of health, safety or the public welfare. The city can prescribe safety factors or construction or building materials but they cannot regulate height solely for purposes unrelated to the public safety or where that height regulation interferes with implementation of a federal policy.

The League's request has been brewing for some time. It formed up after the FCC had specifically preempted local regulation in a proceeding known as Earth Satellite Communications, Inc., FCC 83-526 released November 17, 1983, reconsideration denied The local FCC 84-206, released May 14, 1984. regulations attempted to restrict the use of SMATV (Satellite Master Antenna TV) so that they did not conflict with or compete with local cable tv in which the city had an interest or received a fee. The Commission rejected the efforts at restricting or prohibiting the use of SMATV. The Commission found that the state's action "stood as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress." In other words, the state action prevented the growth of a nationwide communications service which the Commission had been exclusively designated to control. They said that the local governmental entity was not restricted entirely from acting, but only when "local authority over such concerns . . . does not inhibit or interfere with the delivery of interstate signals through the exercise of its Even the existence of certain authority." legitimate local interests might not be enough, " "Certain countervailing state interests may be legitimate but would interfere impermissibly with the federal interest in establishing and maintaining interstate . . . program delivery."

After the SMATV decision, a group called Society for Private and Commercial Earth Stations (SPACE) petitioned for a "clarification" of the decision to see if it included a preemption of local zoning regulations applicable to earth stations. The problem was that many local governments had begun to pass ordinances designed to restrict the growth of TVRO (Television Receive Only terminals). The Commission denied the petition for clarification but without prejudice to its reassertion in a separate proceeding since "the scope of the initial proceeding did not include review of this issue." The League had also asked for a similiar "clarification" with regard to amateur radio, but the Commission felt that this would be more properly filed under the Private Radio Bureau since they had direct

responsibility for the Amateur service. The Commission made it clear that they were not denying the requests on the merits, but if there was a proper showing, they would consider a specific statement of preemption if it could be shown "that local jurisdictions are deliberately zoning out communications equipment for purposes of restricting national communications systems rather than for clearly acceptable purposes of local concern." FCC 84-206, released May 14, 1984.

So where are we now? Well, the Commission opened a comments period on the League's July 16, 1984 request. Apparently, that time period was to have ended on November 9, 1984, but the League requested that the Comment time be extended to December 24, 1984 and that request was just recently granted by the Commission. So, amateurs now have an opportunity to submit comments regarding this important issue. The fact is that there were few comments submitted to this point and it is very important that additional comments be submitted so that the Commission will have the benefit of a broad range of experience in formulating its decision.

What are they looking for? Well, if you have considered putting up a good sized antenna and did not do it because of local city regulations or ordinances, write em and let them know about it. If you have had a tussle with a local Board of Adjustment or Planning Commission with your antenna and tower, write it down and send it to the Commission. If a City Inspector is camping on your front porch writing you citations until Hell freezes over, because of your antenna, let them have it.

What should you not write about? Don't write about the fight you had with your neighbor. Don't write about your tower that fell down. Don't write about the 5,000 signatures about your tower on a petition. Do complain about the City's insensitivity toward your hobby and interest despite the public service nature. Do explain City ordinances that place blanket height restrictions and then require expensive permits and board of adjustment appearances that serve no purpose than to give your neighbors an opportunity to appear and complain about the tower. Do talk about how interference to consumer equipment is greater in your experience with the lower antennas than with the beams located up about 75 to 100 feet. The idea is to demonstrate that the local governments are legislating without any care or interest for the creation and maintenance of a national and international communications system.

The Commission gets its power from the Communications Act of 1934 as subsequently modified. Congress acted under the authority of the Commerce Clause found in Article I, Section 8 of the Constitution which gave Congress the power to regulate commerce among the several states. The authority of the Commission takes precedence over the local governments by virtue of the Supremecy Clause of the Constitution found in Article VI, Clause 2, which makes the Constitution, the federal statutes, the "supreme law of the land." The organization of the FCC was necessary because of the need for a single administrative organization to control an activity that is essentially nationwide and international in scope. The problem is that most local governments tend to respond politically and the boundaries of that politics generally stops with the local interests involved. Nobody at the local level looks at the "big picture." They are only concerned with "what looks bad next door." Which in and of itself is a non sequitar. The person who doesn't like the amateur antenna next door can't arbitrarily establish himself as the aesthetic sensor and censor of the

neighborhood. So, if you write, emphasize the following:

- The absolute necessity of outdoor amateur antennas as a requirement to achieve national and international communications.
- 2. A brief technical discussion, but only if you have the knowledge or experience, of the relationship between height and effective communications. You don't have to be an engineer to be qualified to write about this. Your interest and experience will qualify you, but please mention your experience (e.g., I have been a licensed amateur radio operator for 20 years and during that time I have experimented with a variety of amateur antennae under various propagations.
- 3. Describe any problems you have had with local governments in getting antenna permits, local height regulations for amateur antennas, uneven enforcement of height regulations and the fact that most of these height regulations are not even related to safety (i.e., to obtain a building permit, you must make an application and there are no specific construction requirements or no "inspection" phase of the permit. It is useful to prove that the city's interest is limited because they don't restrict it to health, safety, and the public welfare.
- 4. Emphasize that it would probably be proper for the City to control matters of safety and health, but that any issues of aesthetics or special interests in those other matters must be limited because of the federal objectives sought. Personal experience with local officials and their lack of interest in federal objectives should be related.
- Make a request for limited preemption by the Commission of height regulation insofar as it affects the federal interests of amateur radio.
- Any other factors relevant to the issue of local interference with the implementation of a national and international communications system.

Use a style and heading as shown on the next page and be sure to include all the information so that the comments will find their way to the Private Radio Bureau. If you have copies of ordinances that have been passed including ordinances that actually and explicitly appear to deal with amateur radio or radio communications, you might want to attach them. Under 6 listed above, you might want to include efforts that you have made to change a overly broad or restrictive ordinance and whether you were successful and at what cost in terms of time and money. If city's are not unduly restricting amateur antenna installations of a certain height, then the FCC might think that it is premature to do something. However, if it hears a lot of stories, then it might be more persuaded to do some thing.

Don't ramble, even though I have. Try to clearly set out your experiences and drive to a definite point. Try to be more factual than emotional. Blanket denunciations are really a waste of time. They are conducting a notice proceeding, not taking a vote. But most importantly, and by all means write. It is extremely helpful to all of amateur radio to obtain a preemption now because there is a strong chance that this could die on the vine if any organized opposition forms.

You can send one copy, but if you want each Commissioner to have his own private copy, then tuck four extra copies in with the original. The address is Secretary, Federal Communications Commission, Washington, D. C. 20052. Remember that the deadline is December 24. Try to get them in the mail a week early or at least a couple of days.

#### FEDERAL COMMUNICATIONS COMMISSION Washington, D. C. 20554

In the Matter of:	)		
Establishment of a Policy of Limited Federal Preemption of State and Local Regulation of Amateur and Other Radio Station Installation and Operation	) ) )	No.	PRB-

To: The Commission

#### COMMENTS OF Q. R. ZEDD A5A IN FAVOR OF PETITION OF THE AMERICAN RADIO RELAY LEAGUE

I, Q. R. ZEDD, come before the Commission and herewith submit the following comments in favor of the Petition of the American Radio Relay League, Incorporated ("The League"), regarding the establishment of a uniform federal policy of limited preemption by this Commission of state and local regulation of amateur radio station installations and operations.

#### I. INTERESTS OF THE COMMENTATOR

1. Your commentator is the world's greatest DXer and the greatest DXer who ever lived, with the possible exception of Gil W5NUT. I also have experience with a variety of antennas including the Zepp antenna, of which my pappy is the namesake. This experience has accummulated over the past upteen years that I have been a licensed amateur radio operator. I have experienced a variety of propagation conditions including the time that the Russians began testing nucleur weapons in the upper atmosphere to disrupt my DX work during the DX Contest.

	ETC. ETC. ETC
Dated :	Respectfully submitted,
	Q. R. ZEDD A5A

(Don't forget to double space)

#### MOTOROLA HT-220'S (SOB, SOB!) CHEAP

These synthesized radios are knocking the really good crystalled radios into the proverbial cocked hats, pricewise. I mean, it is nothing to get a UHF HT-220 for about \$100 anymore. This is unbelieveable for a really good radio. And the same goes for the VHF HT-220 or even less. Some are really dogged, but they might even work. The flea market at Dayton last year was crawling with HT-220s that came or crawled out of the woodwork and onto the auction block. A lot of money changed hands and these new radios are probably on their way to new commercial lives elsewhere.

I find it hard to abandon an old warhorse, especially one that served me faithfully until I started acquiring some of these strange new japanese radios like the IC-2AT and IC-4AT. Now, for versitility, you can't beat these new radios. They have a cult following all their own. The synthesizers work without a hitch. I have beat the heck out of mine. It has traveled all around the country and made at least a dozen trips to the floor when I dropped it. Yet, the radio kept on working.

My UHF HT-220 has been on a trip to the floor several times. But when it hits the ground, it makes a thud

significant proportions since it easily outweighs the lightweight Icom. Still, never had a problem. Crystals for HT-220 still are quite expensive and that really takes the edge off buying one of these radio. Oh, I do have some extra crystals in stock that I removed from other radios that I had. But I still need to buy a couple of more from International Crystal. I found a UHF HT-220 in the low split, apparently surplused out from some government sale, and it was less than \$100.00. Now, I wasn't opposed to buying this radio, but I knew that it would be a lot of work to bring it around. I decided that I would make it work and stop there. I didn't need an extra radio to keep at the house, but I thought that it would be neat to have one that I can take to the office. This allows me to monitor the UHF control link for the repeater. Well, it was probably the cheapest HT-220 that I ever got, and I already have about 1/2 watt out of it. You got to change a bunch of capacitors to get even that. I haven't tacked the receiver yet. That could be a real problem since I have so little time. But might be able to write about it next time. It might be useful to somebody contemplating a purchase. Caution, Not for the faint of heart. It will require extensive surgery and a jeweler's loup.

Micheal Salem N5MS

The Altus Area Amateur Radio Association held its monthly meeting on October 11, 1984 at the North Main Fire Station at 1930 hrs. We had two attendees: Loren, WA5CBF and Dwight, WB5KRH.

No business was discussed, but did have a

good visit with the firemen.

Next meeting date is November 8, 1984 at 1930 hrs. same meeting place. Hope to see you there.

73's Loren WA5CBF

The Altus Area Amateur Association held its monthly meeting at the North Main Fire Station on November 8th. 1930 hrs. The meeting was called to order by President Joe MacDonald, W5CCV. Those also attending the meeting were: W5ZDI, Clyde; WB5KRH, Dwight; WB5UMH, Deanna; WD5BBO, Paul; W5VXU, Mike; N5FQR, Herb, and WA5CBF, Loren.

First in a series of reports was Mike, W5VXU, reporting that the club should set up a "Silent Key Committee." It's purpose would be to help a widow of a club member to dispose of a members' equipment at a worth-while price.

Dwight, WB5KRH, next reported that the weather wire rate for the EOC teletype is being raised from \$4.00 per month to \$78.00 a month. He said that was not so bad as some of the rate lines went to \$700.00 a month. The entire state weather warning system is in a state of limbo because of the rate increase.

Joe MacDonald, W5CCV, passed on the information of the West Gulf Directors net meets on Sundays at 7:00 pm CST or 8:00 pm DST. The Frequency is 3942 kc +/-. Ray Wangler, W5EDZ, is the current West Gulf Director and lives at San Antonio, Tx.

For you volunteer examiners, there is a new FCC form 610 that is required as of June 10, 1984. For those thinking about taking examinations the following dates might prove helpful: 12/22/84 Fairview. Must apply by 11/22- see Jack Day, NN5Z, send SASE for form 610; 1/26/85 for Bartlesville, WB5SZQ; 1/26/85 Vici, KC5OU; 2/11 or 2/16 Ada, NG5G; 4/14/85 Moreland, NR5L.

The American Red Cross has a new Disaster Shelter Registration form. It is form 5972.

Note for everyone. We need your help in participation at club meetings. Help by attending. Next date is December 13th, Club elections are scheduled for then. 73's

Loren WA5CBF

WANTED: Will trade a Vic 20 OR a Commadore 64 for a disc drive or programs. Bill Nolen, WA5FWD, 354-5018.

### GREAT PLAINS A.R.C.

W5HGH Repeater 146, 13/73

The Great Flains ARC met at the Woodward Maintaince Building with 16 members present.

The Minutes were read and passed.

The treasurer's report was made and passed.
Under old business: The net report was made by
Michael on 3.740 a C.W. net: There were 16 sessions,
86 checkins, and 11 pieces of traffic handled.

It was reported that net activity for the club

seemed to be picking up.

NC5C reported a novice class was starting on this night at the Woodward County Courthouse. Those helping are Gary, Bob Williams, Bart and James. Thursday night upgrade classes will be held. And on Tues, the novice classes will be held. They will be held at 7 P.M. at the Courthouse. Gordon will be helping, too, with the upgrade classes:

Six members have gone to OkC and have upgraded. They are KASSDD, KASSTC, KASSTB, NSCCV, and KASQED.

It was announced that we are invited to Scott City, Kansas on Oct. 7 by the Sand Hills ARC. There will be swap tables, amateur radio exams, and YL Activity. It begins at 10 A.K.

It was noted that Oct.14 is the Beaver Hamfest. It was announced that Dec. 22 the Cara ARC are holding a Fairview Test Day. They will be V.E. Tests.

It was announced that Cat.20-21 will be the SET, Simulated Emergency Test. This was discussed. It was noted that Gordon was the District E.C., and Ron the Woodward E.C.

Our Christmas party was discussed. Gordon made the motion we have the party Dec. 8th. Michael seconded it. Fassed. Time: 7:30 Consesus of the club was to go to K-Bobs but we did need a bigger room. Alternate date of Dec. 1st was chosen. Passed. A phone call was made and it is to be Dec. 1st. at K-Bobs in Woodward.

A short discussion was held concerning changing C.B. antennas to 10 m. antennas.

A discussion was held concerning use of the repeater. It was noted that high power on these talkies works much better.

KD5JR discussed with the club weather, radar and it was noted that Oct. 31 or thereabouts is a winter storm seminar.

Adjorned 9:45 F.M. 73's K5YZK



# THARRILetter

November 8, 1984

# FCC Grants Time to Save Towers

The FCC has granted an ARRL request for an extension of comment time on PRB-1, ARRL's request for a declaratory ruling preempting local zoning bodies from enacting overly restrictive antenna ordinances. The ARRL Board of Directors decided to seek the extension when they learned that few comments had been filed as the cutoff deadline neared.

Noting that antenna ordinance matters have been among the most frustrating to hams over the years, the Board attributed the lack of comments to slowness of getting the word out to the entire amateur community. For the major magazines, the lag time is usually on the order of two months or so. In confirmation of this theory, FCC staffers have noted some pickup in the rate of comments arriving after the appearance of the November issues of

the amateur press. As expected, the National League of Cities (NLC) has filed comments against PRB-1. Among its points, NLC says that the FCC doesn't have the authority to meddle in local zoning issues, that there is no need for the preemption since anyone with a complaint can always go to court, and that if the FCC does have the preemptive authority, it nevertheless lacks the competence to do it in such a manner that would avoid lengthy court battles. ARRL had anticipated that NLC and similar groups would file comments questioning the need for any such action; hence, it is suggested that hams who have experienced difficulties in erecting antennas should recount them in their filings. Some hams may be precluded from pursuing the existing legal remedy because they do not have the tens of thousands of dollars necessary to fight a case through the courts.

Some communities require large initial and/or annual filing fees from hams wanting to erect or maintain an antenna.

Some communities require hams to initially or annually obtain written permission from all property owners within a specified distance from the hams property lines. Any such requirement or combination thereof that might discourage bright young technically-inclined youth from becoming hams should be called to the attention of the FCC in this matter.

ARRL believes strongly that the Commission does have the legal right to take this small step and the legal competence to do it in such a way that it minimizes the number of antenna cases brought before our judicial system - not increase them. Years of day-in-day-out dealings with hams confronted by unreasonable, tyranical local zoning bodies has proved to us beyond a shadow of doubt that Federal preemption is needed -- but it has not yet been fully demonstrated to the Commission. We urge you in the strongest manner possible to recount any antenna difficulties that you have had with local officials in your filings to the FCC.

That's why it is so important that individuals and clubs present the FCC with case-histories of problems hams have faced in getting or being denied permission to erect effective amateur antenna systems. Send an s.a.s.e with 88¢ postage to ARRL Hq. and ask for the PRB-1 material, which will give you our original filing and instructions for filing comments. The procedure for filing comments is simple: send one original and four copies of your comments to: The Secretary, FCC, Washington, D.C. 20554. The first page of your comments should include the heading," "Comments in Response to PRB-1." They must be received no later than December 24.

The League's request carries with it some risk in that if the FCC denies that preemptive relief requested, it could (Continued next page)

(PR8-1 continued) embolden local municipalities to increase its regulatory pressure on amateur radio. At the same time, however, it has become clear that the present course of fighting antenna regulations in the courts has not gained us much ground. Litigation is time-consuming, expensive, and its legal effect can easily be limited to the facts surrounding the particular case. What we urgently need is for the FCC to act positively on PRB-1. The FCC should issue a declaratory ruling exercising its federal preemptive authority over any state or local regulation that precludes or significantly inhibits effective, reliable amateur communications and which is not clearly necessary to insure the safety of the installation.

¶ Dick Baldwin, W1RU, IARU President, is just back from two weeks in China, where he and his wife were the guests of the Chinese government. The occasion was the Sino-Japanese Friendship RDF Championships, held in Chengdu. The JARL sent a team of twelve fox-hunters and a most successful contest was held. During the twoweek period W1RU had an opportunity to operate extensively from BY1PK, BY1QH, BY8AA, and BT8CD. Propagation conditions didn't favor the U.S. but dozens and dozens of JAs, UAØs, and VKs were worked. The Chinese Radio Sports Association, (the ARRL of China, if you will) is now an active member of IARU. They will send a delegation to the IARU Region 3 Conference in Auckland in 1985 and a CRSA delegation will also visit the U.S. some time in the next year or so. W1RU reports that the Chinese hospitality was superb and that anyone who can visit China will see a nation on the move.

A Following the tragic death of his mother Indira Gandhi by assassination, Rajiv Gandhi, VU2RG, has been named Prime Minister of India, continuing the dynasty begun by his grandfather, Jawaharlal Nehru. A Telex message of condolence was sent to VU2RG:

"On behalf of Radio Amateurs of the World, wish to express our deepest sympathy on the tragic death of your mother." You are in our thoughts at this difficult time. [signed] Richard L. Baldwin, W1RU, President, International Amateur Radio Union."

The ARRL Letter

A The FCC released an Order on November 8 deleting 2310-2390 MHz from the Amateur Radio Allocations table effective immediately. Amateurs lost the secondary status in this microwave segment in July, see September QST, page 48. The segment 2310-2390 MHz is now allocated to the aeronautical flight test telemetry operations. Although this allocation was implemented in the Aviation Service Rules, the changes were not made to the Amateur Radio Service Rules. This Order now makes the elimination "official."

¶ In the last issue, we told you about KUED's plan to distribute "Amateur Radio's Newest Frontier" to all Public TV stations. Bill Pasternak, WA6ITF, tells us that our information was slightly in error, in that we had an incorrect transponder designator. The correct information is: The videotape will be transmitted at 1530 hours Mountain Standard Time (1730 EST) December 30, 1984 over the Pacific Mountain Network using WESTAR 4, Transponder 10. If you'd like to see this videotape on your local PBS affiliate, please contact them now and ask that they "pick up" on this one and show it.

At the FCC Open Agenda meeting October 26, FCC adopted a a gradual phase-in of the new emission designators established at WARC 79, by adopting a Third Report and Order in Gen. Docket 80-739. The ARRL Technical Department dug out some advance information on FCC's handling of the new symbols, and discusses the matter in the 1985 Handbook. Other information will be passed along when received.

¶ Independent Sector, a national organization which encourages volunteerism and advocacy, says that the Deficit Reduction Act of 1984 increased to 12 cents per mile (from 9 cents) the amount that volunteers can deduct for use of their private automobiles to carry out volunteer activities. This information will be good news to ARRL Field Officials with respect to any uncompensated ARRL travel.

A During Amateur Radio Week in Liberia (November 25 through December 1), Liberian amateurs will use the special prefix 5L. This prefix will be in use for the rest of 1984. For example, the Liberia Radio Amateur Association headquarters (EL2RL) will sign 5L2RL.

The ARRL Board of Directors met in Hartford October 25 and 26 for the second 1984 meeting. A wide range of issues was addressed. The Minutes of the meeting appear in December QST.

In the most far reaching action, the Board instructed the staff to develop a program designed to increase the number of U. S. hams by 50,000 per year for the next five years, that is to say a 250,000 increase by the end of the decade. The Board also set goals of increasing ARRL membership by 25,000 during 1985 and of increasing the membership by 20% each year in years thereafter. Detailed proposals and plans are to be presented to the Executive Committee at its November 19 meeting, and to the Board early in 1985.

Packet radio received considerable attention at the meeting. Based on the recommendation of the Ad Hoc Committee on Digital Communications, the Board approved the AX.25 Amateur Packet Radio Link Layer Protocol and gave the Committee authorization to approve incremental changes to the protocol to keep it up to date. The Committee will refer any major changes to the Board. This action will minimize the possibility of several incompatible standards being developed and implemented simultaneously in different parts of the country, a situation that would lead to chaos similar to that found in the 2-meter FM bandplans. The Fourth ARRL Amateur Radio Computer Networking Conference will be held in San Francisco on Saturday, March 30, 1985.

Repeaters, frequency coordination and the chaos of the incompatible bandplans also received considerable attention from the Board. The Board affirmed that ARRL's Repeater Directory will be an annual publication, and henceforth the listing will be marked to indicate whether or not a given repeater has been properly coordinated by the local coordinator. The staff was directed to send a letter to all VHF repeater frequency coordinators known to the League, requesting copies of their frequency coordinating policies and practices. Upon receipt of a sufficient number of policy statements, the ARRL staff is to prepare a draft for submission to the Executive Committee of "Standards of Frequency Coordination Practice." This guide will then be submitted to the Frequency Coordinators for comments. An

accompanying letter will make it clear that ARRL is not trying to impose standards on the individual coordinators, but only attempting to aid in arriving at a uniform policy.

Language was adopted praising the steadfast support of the League by the Canadian Life Members and clarifying their status as CRRL becomes more independent over the next several years. Canadian Life Members are now guaranteed rights to membership services in perpetuity, but effective December 31, 1984, new Life Membership applications will not be accepted from Canada pending the establishment of a Life Member program by the CRRL.

The Management and Finance Committee was assigned the task of studying the desirability and feasibility of relocation of ARRL Headquarters from Newington, CT to an alternative site. The Committee will be charged with determining costs and the League's financial ability to sustain them, membership perceptions, impact on League staff, and the likelihood of increased effectiveness being the result. A report is due in early 1986.

The Contest Advisory Committee was directed to study the feasibility of adopting a more neutral geographical scoring system for at least one of the ARRL sponsored VHF/UHF contests. The General Manager was instructed to prepare a paper on the status of the Vienna International Center, and the DX Advisory Committee is to reconsider the 4U1VIC question no later than January 20, 1985. There is to be a study to determine what new DXCC or existing awards, if any, should apply to the 24-MHz band. The Board also voted to recognize the District of Columbia as a separate multiplier from that of Maryland for the annual ARRL DX Contests and the annual ARRL Ten-Meter contest. There is to be a survey conducted of U.S. ARRL members concerning their feeling about SSB operation on 40 meters below 7.1 MHz.

ARRL's Plans and Programs Committee will study the feasibility of ARRL offering its assistance to FCC in the area of maintaining amateur licensing records in general, but especially in the admitional continued next page)

The ARRL Letter

(Meeting continued)
nistration of special call sign requests
of clubs and individuals. The staff is to
devise and implement procedures to permit
walk in examinations at ARRL Coordinated
Volunteer Examiner Exam sessions, to the
extent that the particular VE team deems
appropriate.

ARRL Counsel was instructed to file a request with the FCC for a 45-day extension in PRB-1, ARRL's request for issuance of a declaratory ruling to establish limited Federal preemption over amateur antennas and supports (see story elsewhere in this issue). ARRL will file a petition with FCC to permit the use of F2 emissions for repeater identification on 10 meters. The League will request that the FCC issue a public notice advising VCR manufacturers of their obligations with regard to RF shielding and filtering.

ARRL will file a petition with FCC requesting that the Commission amend the rules governing the Amateur Satellite Service to add the new frequency allocations granted at WARC-79. ARRL will also seek to have the FCC change the rules to permit someone failing an Amateur Radio examination element to retake that element 27 days later instead of the present 30 days. This would be of particular benefit to those served by VE teams who plan to provide examination opportunities monthly.

AMSAT/ARRL request for a special temporary authorization (STA) permitting operation of automatic digital teleport stations. Teleports in this case act as automatic relay stations between packet radio networks on the ground and amateur satellites in orbit. The FCC "concluded that the automatic relaying of digital messages between amateur stations on earth and amateur satellites via intermediary stations (stations in teleport operation) may contribute to the advancement of the technical and communication aspects of the art of radio."

The following sections of the Amateur Radio Service rules have been waived for authorized stations:

"97.126(a) is waived to permit an amateur station engaged in teleport operations to retransmit automatically the radio signals of other amateur radio stations.

"97.126(b) is waived to permit a

remotely-controlled amateur station engaged in teleport operations to communicate with stations which are not shown on such a station's network diagram.

"97.79(b) is waived to permit an amateur station engaged in teleport operations to be operated under automatic control without the presence of a control operator at a control point of the station; provided that devices are installed and procedures implemented to ensure compliance with the Commission's rules at all times; and, provided further that upon notification by the Commission of improper operation of a teleport station under automatic control, such automatic control shall be discontinued immediately until all deficiencies have been corrected."

Authorized stations may operate satellite uplinks and downlinks on 144-146 MHz and 435-438 MHz. Terrestrial inputs and outputs may be on any amateur frequency at or above 50 MHz where digital communications is permitted.

This STA expires 180 days from October 18. Good luck to all stations involved.

An elementary or secondary school teacher will be the first civilian (non-military and non-aerospace industry) Space Shuttle astronaut in late 1985 or early 1986.

The requirements will be released in NASA's Announcement of Opportunity (AO), available from NASA Headquarters, Mail Code ME, Washington, DC 20546. A recorded information telephone number is 202-453-8644.

Owen Garriott, W5LFL, has demonstrated that ham radio can be used for back-up communications in space. Will you be teaching ham radio from space?

TEST SESSION RESULTS SUMMARY

November 6

CUMULATIVE SUMMARY OF all ARRL/VEC SESSIONS SINCE PROGRAM BEGAN SEPTEMBER 1:

TOTAL CANDIDATES SERVED BY ARRL/VEC: 925
TOTAL ARRL/VEC SESSIONS COMPLETED: 21
AVERAGE NUMBER OF CANDIDATES/SESSION: 44

	1A	18	10	2	-3	4A	48	total
ELEMENTS PASSED	23	178	75	31	155	99	21	582
ELEMENTS GIVEN	35	382	124	34	311	236	85	1207
PASS, RATE	66 X	47%	60%	91%	50%	42%	25X	48.2%

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The ARRL Letter

12

Many amateurs all over the world would like to join a DXPEDITION, but how many of us can make a dream come true? To fly or sail to a faraway country "big bucks" are needed. To find and transport the equipment is another heavy expense. Not many of us are able to write off complete outfits, fewer even like bullets and sinking ships.

Wouldn't you like to fly from New York to Africa in a wide bodied JUMBO jet like a 747 SP, travel through 4 to 5 BOEING countries, see wild life like elephants, crocodiles and operate with a rare call sign or rare area suffix? I have traveled to many rare countries (from Cairo to Capetown) with equipment and found one of the biggest problems that, in spite of the best planning, the antennas were always the worst part of the system. While touring the USA a few years ago with the call A22PS/W-I got the idea to offer a DXPEDITION to US amateurs in Africa. It took me four years to iron out all the hitches that I encountered myself.

One of the challenges was to offer a tour through five mainly rural countries where everything was taken care of for the radio amateur. You can not simply walk into a RADIO SHACK shop and buy a barrel connector or co-ax. Even a soldering iron is, in some parts of Africa, a collectors item. You might be able to order with a three weeks delivery

time, if you have good contacts.

to provide transportation. order equipment about accomodations, food and one-third of the tour features RV's and camp accomodations on sites with local power. All units are fully serviced. At Zimbabwae accomodation Victoria Falls site(Z2) catering is provided in conjunction with the Goodwill Group of hotels. Operation here is . from a large tent apart from the main hotel area, preventing TYI and other interference. Other excellent recreational facilities like fishing, game viewing, golf, swimming, etc. are also available here.

All main sites have one or two antenna masts (30 to 60 feet) with multi-band beams for the exclusive use of tour members. For OSCAR 10 enthusiasts, facilities are available to operate the satellite in Hode B and L. The IARU band plan 1 is applicable at all times.

At least one licensed local amateur accompanies the group of not more than 8 foreign amateurs on the complete tour in Africa. A hostess caters on all campsites. At least two large meals are provided each day. Within the S.A. Customs union area some excellent South African wine is provided with the compliments of the organizers. Light beverages are also free on tour. In fact, all that is needed is pocket money if you mant to buy souvenirs, etc.

HAMVACATIONS provide you on arrival with log books and on departure supplies a reasonable quantity of commemorative cards for all your

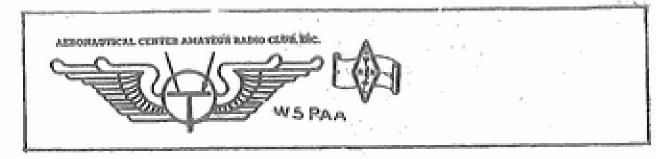
contacts on tour free of charge.

Can you afford to stay at home? The all inclusive price is only US \$4895.00 per person (sharing) accommodation. Block bookings of four amateurs receives a special 10% discount. An international driving permit is required if you want to take the wheel.

The tour is available to amateurs with general and above licenses. Novice class amateurs can not be considered for short term permit applications. Technician class amateurs receive, in some instances, amateur licenses excluding the HF bands. Not all countries enroute issue lecenses to Technician class license holders. Here is one reason for you to upgrade.

All air transport is via regular scheduled carriers like PAN AM, SAA and AIR ZIMBABWE.

If required in advance a complete video outfit (BETA or VHS) will be made available for the duration of the tour. Only one outfit per tour is permitted. HAM VACATIONS does NOT accept the responsibility for any personal property belong ing to individuals. Do not bring any expensive items like heavy gold.



#### ACARC Minutes NOVEMBER 1984

Jack Iman, WB5SVN, President called the November meeting to order at 7:30 p.m. with 25 members and guests present.

Bob Pace, WASCJG, reported the treasury and repeater are in fine shape.

Old business - Tom Mangham, KSLDI, gave the CORA report.

New business - Chuck Wilhite, K5NK, is trying to organize local volunteer examiners. If you are an Advanced or Extra class Amateur and interested in helping out call Chuck at home 721-6225 or 721-4946.

Our next meeting will be our Christmas Dinner which will be Friday, December 7th, at 7:00 o.m. at Furr's Cafeteria at Westoark Mall located at N.W. 63rd and MacArthur. Please take note of date and time. We will have a separate dining area for our club so come and join us for some Christmas cheer.

Jack turned the floor over to Steve Bense, WA4DLE, who gave a very interesting and informative program. His slide presentation was entitled "Third Combat Information System Group" which highlited subject of communications and Combat Readiness.

The meeting was adjourned at 9:01 o.m. for refreshments. Remember!.. olan to attend our Christmas Dinner Friday Dec. 7 at 7:00 o.m. Gloria Seignious, WDSJPW

#### FOR SALE

A Kenwood TS 700A all mode 2 meter radio with both AC & DC power supplies built in. An excellent rig for fixed or mobile use.

Two KLM 13 element long boomers which would enhance one's 2 meter capability with above radio.

A 3 element, tri-band beam by Mosley, model TA-33 in excellent condition.

All listed equipment may be seen in operation at the QTH of WB5SVN. Jack Iman.

Home phone, after 5pm 677-8537

rings, diamond jewelry, etc.

Booking must reach the organisers (HAMVACATIONS) at least three months before the intended date of departure in order to arrange guest licences in time for all countries. No tour vacancies are left for 1984. Earliest booking at the time of writing is February/March 1985. A deposit of US \$1000.00 is payable when booking. The balance is payable 30 days before departure. MASTER, VISA and AMEX are acceptable. The total number of participants in HAMVACATIONS is limited to 100 anateurs per year.

Tours planned for 1985/86 include, Lesotho, Namibia and Mozambique (local conditions

permitting).

Other countries of interest to foreign amateurs are Angola, Zambia, Zaire and Malawi. However, currently no facilities for the issue of short term permits seem to be available.

Should you require further information regarding touring Southern Africa contact - Peter Strauss, ZR6MI, c/o HAMVACATIONS, P.O. Box 35461, Northcliff 2115, South Africa.

Our new Telex number is 4-83555 P SA, Att.

HAMVACS.



#### CLUB OFFICERS

Chairman = Tom Stott 324-5086 Vice Chairman = Hollis Holcomb 799-2539 Secry/Treas = Miles Langmacher 352-4059

Meeting held at Red Cross Building 10 & Hudson Second Sat. of the month; 9:00 A.M. Club Dues: \$5.00 per year

The meeting was adjourned at 9:15 a.m., Saturday, Oct. 13, 1984 by Tom Stott. 85 were present.

December is the voting month for those of us in the club. The nominating committee, which is open 24 hours a day, is as follows:

> Larry Loe - 732-6903 Bob Helms - 733-3429 Jim Seals - 381-2005

Well, the next part is becoming a monthly part of this newsletter. Here it is:

For the DISK CIRCULATION, bring 1 DISKETTE.
The next month, bring ANOTHER DISKETTE, with YOUR
NAME ON IT. Get the diskette you brought the
previous month. Now you just follow a trading
pattern. If you want to contribute a program or
something to Holly on one of these disks, FLAG IT.

Discussed was the purchasing of FLEXNET.
Although the club does not have nearly enough
money to purchase it, the idea has tickled the
fancy of many. A large sum of money would have to
be donated to achieve this. A committee has been
formed to explore the virtues of this puchasing.
The members are as follow:

Sam Hurr - 324-6443 Bob Helms - 733-3429 Herb Reed - 722-4315 Bob Langmacher - 352-4035

The C+E would very much appreciate donations, such as in the form of publications. Be sure to check with Mr. Harding.

Something appears to be wrong with Disk Scriptsit while using it with a Gemini 10x. The correction, or patch, while be published in the C+E.

A contest has been promoted for the MC-10. Here is the introduction:

HERE IS THE CHANCE TO WIN A RADIO SHACK MODEL MC-10 MICRO COLOR COMPUTER OR A LCD MULTI-METER OR MAYBE YOU WILL WIN A THIRD PRIZE VAULED AT \$20.00. YOU CAN ALSO HAVE A LOT OF FUN WHILE YOU ARE DOING IT. THINK OF WHAT YOU WILL LEARN IN THE PROCESS.

THE RULES-

- 1) YOU MUST BE A MEMBER OF THE COCO CLUB.
- 2) ALL PROGRAMS ENTERED IN THE CONTEST MUST RUN ON THE BASIC MC-10 COLOR COMPUTER.
- 3) ALL PROGRAMS SHOULD BE EDUCATIONAL IN NATURE.

  ( FOR AGES 6 TO 10 YEARS)

  I.E. SPELLING, MATH, READING, LEARNING
  GAMES,.. ETC.)
- 4) ALL PROGRAMS MUST BE TURNED IN BY THE END OF THE CLUB MEETING IN DECEMBER.

ALL PROGRAMS WILL BE JUDGED ON ORIGANALITY AND EASE OF USE.

AU REVOIR, Miles Langmacher Hello All: I really have two things to talk about;

One 'the up comming elections

Two 'the C&E.

Elections for our club are just around the cornner and the moninating comittee is hard at work calling people. What I am about to say, is for those people who whould like to take a more active part but for one reason or another do not step forward.

Few things have been more rewarding then being part of this club from its birth to adulthood. I know of no other club that can boast of meeting attendance in the 70's, month after month. We've grown into a warm and friendly group, with people willing to help each other. If you only knew how many times I've been asked," what can I do to help". Whoever steps forward as office holders for the next year will find a fulfilling experance awaiting them. Think about it, this is your chance.

It is discourging to see how thin the C&E has been of late. This is not so much the COCO clubs fault, but the Ham clubs. So what I have to say is to all readers," WRITE SOMETHING!!". I know -- I hear you, "what can I write that would be of interest to anyone". Well the answer is -- Anything that is of interest to you... For sale adds, short stories, humor, troubles, complants, solutions and even the ultimate, a technical article.

You can write on almost any word processor, typewriter or ink pin. Those with color computers can use any of the four or five word processing programs and put it on the monthly disk, Or send it by Modem to myself or Joe Harding.

Belive ne, YOU CAN DO IT!

Take care and happy computing.

MINUTES TO THE NOV. COCO MEETING PRES TON STOTT

V.P. HOLLIS HOLCOMB SEC/TRE HILES LANGMUCHER

The meeting opened at 9:00 am, with a round of introductions. After a short chat about the monthly diskettes, it was opened for Old business.

Old business: Flex Net ..

Bob Helms headed the committee from last month to look into buying the Flex Net. The owners wish to sell both hardware and software. Bob explained many possiblities and reasons for the club to purchase or not to purchase the net. After an hour of discussion, motions, and countermotions, the following motions were made and carried:

Bob Pace: motioned for club members to donate \$10.00 (or more if they wished) to purchase

Flex Net.

Joe Harding: motioned to donate any money to the Red Cross from the sale of the net, if and when we ever decide it is necessary.

The following people volunteered to serve as

Bob Pace, Bob Helms, Jim Seignious, Tom Mangam, Jim Seals, Mark Schiels, Bill Holland,

and Ted Freeman
It was pointed out that the name could not remain 'Flex Net'

remain 'Flex Net'
Sam Murr: motioned to call the new net, 'COCO
Net'.

Sam Murr: motioned to give mabel to anyone that donates the \$10. (Mabel is a disk to disk terminal/modem program.)

To sum everything up:

We purchased: 1- Southwest Tech computer

2- 8" DDDS disk drives

1- terminal

COST \$1000 1- Heath kit printer

1- Hayes smart Modem all software for net

plus -- Bill Holland gave all rights of his Mabel program to our club. This may give some small income in the future.

Almost \$500 was collected at this meeting and Joe Schilling was nice enough to loan \$500, interest free, to make it possible to purchase Flex net right away.

NEXT PACE ->





OCAPA

#### Board of Directors Meeting Bugged

The Autopatch club Board of Directors held their menthly meeting at the Bonanza Steak House at 10th & Portland on October 16th. As you know, everyone is welcome at the board meetings, however, this time we had an unwanted guest, RØACH, who we found out later was an infiltrater from Russia.

This was the first time an Autopatch board meeting was bugged. Maturally, when the bug was discovered, the topic of discussion was changed to get the Russians off track.

First to discover the bug was our club president, wB5NDO, Kathy and she was very upset that RØACH would bug our meeting. Ron, KE5M told Kathy that the bug was powered by a 4000 volt battery and not to touch it, she could get shocked!! Kathy stated she WAS shocked dust to discover the bug in the first place...

Buddy, KESLD suggested that we invite RØACH to the regular club meeting and that caused a flurry of metins, amendments to the motions, counter motions and finally a motion to have a rotor mounted on Buddy's chair so we could turn him in the proper direction.

Reggy, WN5NWX demanded that the bug be smashed so the Russians could not find out what we were doing and Kathy said she would never invite RØACH to one of our meetings ever again....

Bob N5GWZ

The October C & E had a notice about the Amendment to be voted on. The motion reads; "to amend section 1 of the by-laws of O.C.A.P.A. to include the Emergency Coordinator as a member of the Executive Committee."

Be sure to attend the January meeting so you can vote on this issue.

Art, N5GRI, the club Program Director had a very good film on Flying with Bob Hoover.

O.C.A.P.A. POT LUCK

POT LUCK KCUL TOP POT LUCK KCUL TOP. DECEMBER CHRISTMAS MEETING

The December meeting will be the party food fest.

Christmas

Fire & Police Training Center 800 N.Portland, OKC.

Tuesday Dec 18th. 7:00 PM
Bring your own table service and soft drinks.

Coffee & Tea furnished.

Bring enough food for your family.

All club families are invited.

Don't forget to bring a "White Elephant" gift.

Covered dishes, dishes without covers and any kind of food are accepted, will be accepted, might be accepted, possibly. See you then.

N5GWZ

EXTRA CLASS AMATEUR RADIO W5KE FIRST CLASS RADIOTELEPHONE LICENSE

#### ELLARD'S EX EL

ELLARD W. FOSTER, OWNER

5905 N.W. 42nd Street, Phone: 405/789-6702 OKLAHOMA CITY, OKLA. 73122

TELETYPEWRITER ASSEMBLIES USED TEST EQUIPMENT EXCESS ELECTRONICS Contraction Cymenter Contraction Contraction

Still under old business, Jim Seals volunteered to write a review of color profiler.

New Business: none
Software: Bob Pace talked about a correction to the ROM in the Dragon computer,

Jim Seals found how Elite Word goes off into never never land. If you are using the arrow keys to step back to the end of text and step too far (that is past the end of the screen), you can not get the cursor back onto the screen. A solution has not been found as of this writing.

Hardware: It was noted that the disk drives will not turn off if you EXEC before the drives quit running. The solution to this is a software solution.

1- In a loader program, put a delay loop. 2- poke FF00,0 this stops the drive motor

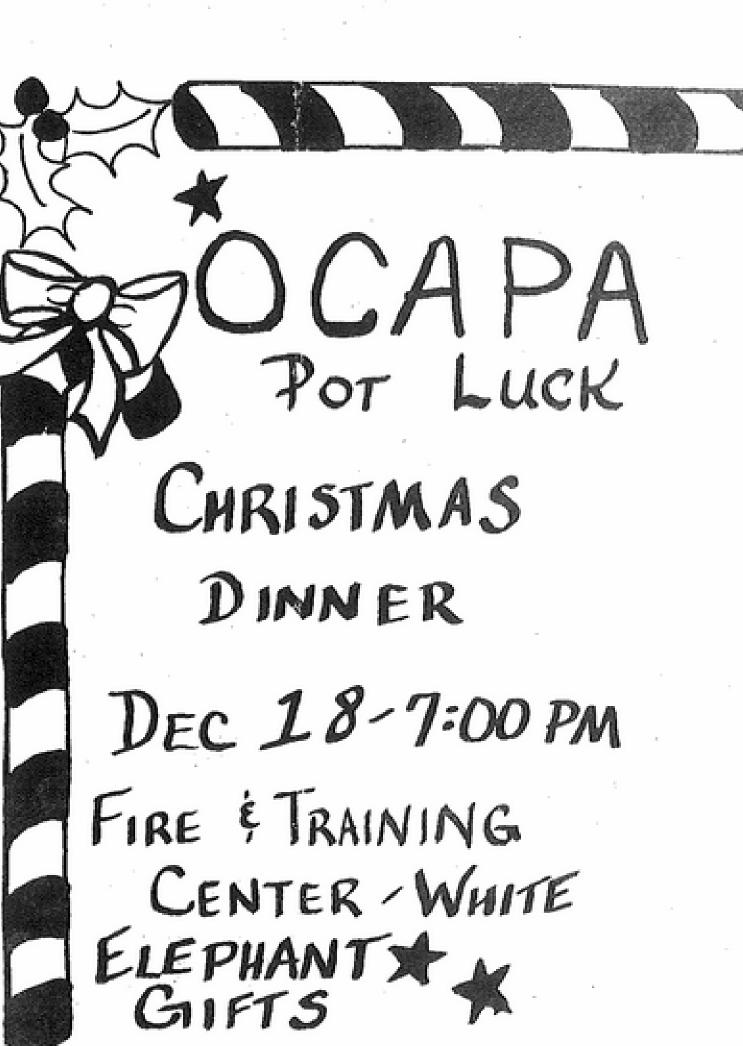
note- a loader program is a short basic program to load a ML program, as follows:

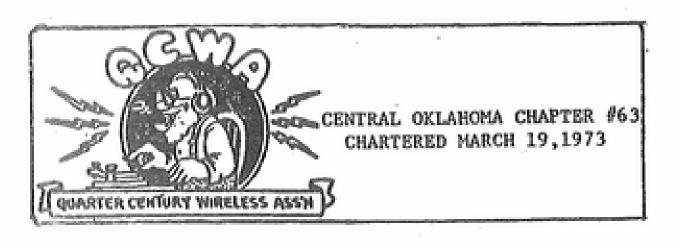
10 LOADH"NAME": FOR X=1TO100: HEXTX: EXEC

Because this is a basic program, you can type RUN"name" and the computer will go get the basic loader, run it, and then go get the III. program the basic program is calling for.

The meeting was turned over to Bob Pace for the program.

See ya, at the Dec. meeting. Holly





#### NOTICE OF MEETING

The next meeting of the Central Oklahoma Chapter will be Sunday, January 13, 1975, at the Anna Maude Cafeteria in the Penn Square Shopping Center. This will be an important meeting, since we will be electing two new directors and a secretary. An interesting program will begin at 1:00 PM. Most of us should be finished eating by that time. A newsletter with attached ballot form will be mailed to all members during December. These ballots should be cast at the January 13 meeting. The Secretary will have additional ballot forms at the meeting.

Fred, W5NL, and the XYL should be in "upside-down land" by now, observing the Kangaroos, Kaoli and beautiful scenery. They should return about December 17th.

We appreciate the articles this month by Carl, Bob, and Howard. They cover periods of interesting history in Amateur Radio. Newcomers should enjoy them as much as the old-timers.

The following item on the PURPOSE of the QCWA is taken from the QCWA Constitution:

"The purpose of QCWA is to promote friendship and cooperation among Amateur Radio (Wireless) Operators who were licensed at least a quarter century ago, and to operate exclusively for charitable, educational and scientific goals.

It shall promote interest in Amateur Radio communications and the advancement of the electronic art. It shall make use of the reservoir of knowledge and experience represented in the membership of QCMA for the benefit of all Radio Amateurs and the public welfare.

It shall promote a scholarship fund for worthy students who are Redio Amateurs. Such funds will be secured through the QCWA Memorial Scholarship Fund.

QCWA shall work to preserve the history and traditions of early Amateur Radio and to honor the accomplishments of its pioneers."

RAY - W5TY

#### INTRODUCING THE RADIO AMATEUR

Amateur Radio has a long history, maybe longer than you think. The men who made radio first a laboratory curiosity then a reality with practical applications were not laboring for money. They were amateurs: Persons who put forth long and sometimes frustrating hours purely for the love of discovery and achievement.

They were men like Heinrich Rudolf Hertz, like Sir Cliver Lodge, like Jagadis Chunder Bose, like Edouard Branly, like Aleksandr Stepanovich Popov, and (initially) like Guglielmo Marconi.

Marconi, however, broke out of the ring of gentlemen experimenters. He turned traitor to his class (a born gentleman) and debased an art to crass commercialism. That ripped it! From that time on, there was a mad scramble to make money out of what formerly had been learned research.

You see, Marconi "turned around" the direction of radio development. Hertz was a VHF and UHF experimenter, dealing with plane reflectors and corner reflectors as well as dielectric prisms. Lodge centered his research even higher, producing 4 GHz waves with peak power of 75 KWs! But Bose topped them all; his cavity-tuned RF generator put out its power at 64 GHz!

But here came along Marconi. Starting somewhere around the borderline between VHF and HF, he found that by making his grounded antenna (which he did NOT invent) higher, he could get out farther. So he pushed it ever higher, thereby going past the HF spectrum into the MF and (much later) into the LF region. As he was making money, he led the pack in scrambling for ever longer waves. Read that:

Lower frequencies.

He'd set the pattern quite firmly by the time the next generation of amateurs came along. These amateurs were not college professors; neither were they sons of the idle rich; they were run-of-themill individuals with more than the common amount of curiosity plus determination to dig out facts to satisfy that curiosity.

Because of the fact that the pioneers had used sparks to initiate the electromagnetic oscillations, these new amateurs followed in their footsteps. The raw materials were readily available. For low power, spark coils were being developed for use with internal combustion engines. These were ideal for serving as the heart of a radio transmitter. Emulating Marconi's early stations, this spark coil was connected directly to the antenna and ground with, of course, a spark gap across the coil's secondary winding. Like Marconi, they found that this simple transmitter worked! Also, like Marconi, they found that its signal could be heard on just about every frequency between zero and infinity!

So they followed Marconi a bit farther (if they had the small amount of money to buy the few needed parts) by introducing a tuned circuit. This additional step was the basis for Marconi's famed "four sevens" patent. Never mind that he stole the idea from Lodge (of England) and Braun (of Germany). He got British patent #7777, and that patent assured his fortune in the field of radio communication.

With a tuned circuit concentrating most of its power in a spectrum not much over a few tens of kilohertz wide, these amateurs could communicate with other amateurs (and commercial stations, too) over distances that grew first into the tens, then to the hundreds, and (by the early 1920s) to the thousands of miles.

Oh, there were a few changes en route. The straight spark gap grew into a rotary gap of maybe even a quenched gap. The tuned circuit evolved into an elaborate "oscillation transformer" that had a fantastic Q. The antenna system became a marvel of construction, with high towers, multi-wire radiators and feeders to give both low chmic resistance and high capacitance, and an imposing ground system plus perhaps a counterpoise. The spark coil gave way to a high-voltage transformer with, perhaps, a secondary voltage of 35,000. And, most importantly, a high-voltage capacitor was added across the transformer's secondary.

With increasing technical capabilities, the amateur became limited by legal restriction. No longer could he communicate with commercial stations. And, be it whispered, no longer could he legally go on a commercial station's frequency and tell its operator to go chase a snake. You see, many of the amateur stations put out a better signal than that of the commercials, who were limited by savage patent ligation to the use of equipment that never embodied the best that the "state of the art" made possible. So the poor commercial operator could retaliate only by calling the amateur the vilest insult he could think of: Ham.

With his wings clipped by The Radio Act of 1912, the anateur could not legally operate on any frequency lower than 1500 KHz (200 metres). Contrary to popular fiction, he was NOT permitted to operate on all frequencies above 1500 KHz. Also, he was limited to a power of one kilowatt. There were escape clauses. By showing required qualifications, he could get special authorization to use both a lower frequency and higher power. "Incentive Licensing" has been around a LONG time!
This Law marked the beginning of recognized Amateur

Radio operation in the United States. I believe it's the only "hobby" recognized (and provided for) in National and International Law. We belong to a special group; be proud of being a Radio Amateur!

#### B5DXCC CW

As the solar cycle 21 is about over, the best you can do is start getting your rig and antenna system to be best you can do. Your rig must have the capability to operate split frequency. Then wait until solar cycle 22 gets going.

The thing you will need is time for DX. After 75 or so countries per band, DX will be slimmer and slimmer. You will spend hours of listening and a few seconds to send at a time per DX QSO. Drop out all rag chewing - you need the time. Also, get all microphones in a box, take 'em out and swap 'em, sell 'em or just give 'em away. You can't get a single DX QSL while you are chewing a mike.

Speaking more of time, be sure to plan to retire as soon as cycle 22 gets into action. But you say you are not old enough to retire. It's simple - you have plenty of time to train your wife for a good job. Retire early then.

Of course you will need full call books, USA and DX, as well as the supplements of the call books. A good DX manager list is needed, too. QST has fine DX information every month.

I will never try to say how much power and what kind of sky-wire you use. I use only a Heathkit SB-220 amplifier and a Hygain HT-18 Hi-Tower vertical that works all bands, and that's all.

The best thing you can do in C" DX chasing is to upgrade your license to the Extra Class. It is known that ninety percent of CW DX is found within the extra segment. No need to moan or cuss on it, don't fight 'em - join 'em.

I have not contacted over a half dozen DX stations on SSB, so I have no idea of how to chase DX there. I feel though that my comments will be useful sometimes on all modes....

Howard - W5AS Once upon a time --- before handi-talkies --- before repeaters --- before transistors --- before sideband --- before television --- before W -II, the "new frontier" was the 5 meter and 22 meter bands. At a time when vacuum tubes and components were straining to function efficiently at 10 meters, the higher frequency bands were a real challenge. The "fad" at high school was the portable tranceiver, typically a type 19 twin triode used as a superregenerative detector and one stage audio feeding a pair of headphones. In the transmit mode, the superregen grid leak was switched to a lower value so it would oscillate more strongly, and the audio was switched to modulate the oscillator. Powered by a 45 volt "B" battery and "A" battery for filament heating, the complete package was slightly smaller than a shoe box and quite heavy. The young operators looked a little weird carrying this gadget with its whip antenna, wearing headphones, and talking into a carbon mike courtesy "Ma Bell."

For the more serious VHF'er -- and I must admit that my acquaintances were limited to Central High School's radio classes under Paul Bell in the 1936-1939 era, where Vance Dewey (call long forgotten) was the serious VHF'er -- anyway, the classic 2½ meter receiver used a couple "acorn" tubes, the 954 pentode as an RF amplifier and the 955 triode as a superregenerative detector. The version from the ARRL Handbook used quarter wave lines for the tuned circuits, RF and detector. The outer conductor was 2" copper tubing with ½" for the inner conductor. Acquiring the copper tubing was almost as painful as acquiring the acorn tubes.

Developing stable transmitter power was even more painful to the pocket book. Bliley had just introduced a 30 MHz crystal, not an overtone, just ground very thin. The new tantalum plate transmitting tubes offered good performance at VHF frequencies. I recall the HK-24 and HK-54 as the popular ones, where the numeral represented the plate power dissipation. They operated at about 2000 volts and gave off a cheerful bright red glow under key-down conditions. Vance built such a rig and used it to drive a three element yagi made from electrical steel tubingwelded together and pointed with the "Armstrong" rotator. My memory fails when it comes to recalling what kind of operating success resulted from all this effort. Maybe nothing more than a few local contacts -- but that's beside the point. In the early days, making the equipment work was 90% of the achievement and fun. That's a far call from today's solid state, transistorized, miniaturized and computerized black boxes. I wonder where all the fun went? BOB, W5HXL

# The South Canadian Amazeur Radio Society

#### SCARS ELECTS OFFICERS.....

The South Canadian Amateur Radio Society held its regular monthly meeting for November on the 9th of the month at the Red Cross Building in Norman. The first order of business was the election of officers for the new year. SCARS has elected a fine slate of leaders for 1985. They are:

Dave Egle KD5IT Pres
Ken Esadooah N5BEW V-Pres
Joe Green KA5AXQ Sec
Monte Bateman WB5RXZ Treas.
These officers will take office in January.

Also, SCARS would like to extend a vote of thanks to the officers who have served the club so well during the past year.

#### ANNUAL CHRISTMAS DINNER SET.....

The Annual Christmas Dinner for SCARS will be held on Saturday, December 1st, at 6:00pm. It will be at Kellys on Main Street in Norman. No reservations are necessary. Arrangements have been made for us to have use of the private dining room, and ordering will be done from the menu on an individual basis.

#### DUES DUE.....

Remember, dues for SCARS run from Jan. 1 to Dec 31, so it is about time to pay for another year. Please make plans to get with our treasurer as soon as possible to take care of this.

#### UPGRADES.....

Several locals have recently upgraded their licenses. I haven't kept exact track of all of them, however these are the ones that I can remember at this moment:

Monte, WB5RZX to Advanced Ken, N5BEW to Advanced Gene, WD5GTC to Advanced Kevin, WD5GTB to Advanced

#### REPEATER NEWS.....

Well, the repeater got a new crystal oven for the receiver. In the process, it was peaked up and is now performing well. There are several reports of increased range, and the interference has decreased.

-wa5rpp-

\*

HELP--HELP--HELP--HELP--HELP--HELP
COCO member needs help in obtaining
Proctor & Gamble UPC symbols to obtain
a FREE IBM PC jr system for her school
lab. Now have 5 COCO's II and 4 PC jrs.
PLEASE save UPC sybols from:

JIF PEANUT BUTTER BOUNTY PAPER TOWELS
PUFFS KLEENEX SURE DEDDORANT

PUFFS KLEENEX SURE DEODORANT
PRELL/ PERT SHAMPOO ENCAPRIN
TIDE LUVS CITRUS HILL ORANGE JUICE
CRUSH BEVERAGE CREST TOOTHPASTE

Bring the UPC symbols to the DEC or JAN COCO meeting. see: KAYE DERRYBERRY

WEBSTER MIDDLE SCHOOL OKC, OK 73139

THANK YOU

#### ZEDD AND HIS PALS HAVE A MERRY

Christmas came a little early this year to Honor Roll Ranch, home of the worldrenowned DXer and all-around wonderful

person, Q.R. Zedd, A5A.

Zedd, holder of the world's only 1x1 callsign and the first man to win the coveted Worked All Stations award on 440MHz, decided to have some of his pals in early because he was scheduled to bop off to Houston's Space Flight Center at mid-month to get a few bugs out of the space shuttle's communications systems and show authorities a new robot arm he designed which will replace the Canadian arm presently in use. Zedd's arm is made from old Coors cans, works a lot better than the Canadian model used heretofore on the shuttle, and costs nothing if you write off the cans to thirst.

Tinsel and mistletoe garlanded all the towers and antennas at Honor Roll, just a hoot and a holler south of Norman, when the

festivities began at mid-month.

Everybody who was anybody was there.

Zedd's momma, Mrs. Constance Wilhemina Zedd, blasted over on her new four-cylinder Honda, trailing a zepp antenna and dazed highway patrolmen in her wake. She reported working 212 countries on the way over from her home near Mena, Ark., using a straight key strapped to her handlebars and an old Kenwood 820 "that I messed with a little to boost the power."

Zedd's constant companion, Tondelayo Schwartz, was on hand, of course, having just won the 10-meter contest while updating her 10-10 logbook to include everybody who ever

belonged.

Bill Buckeye, famed Ohio Dxer, was there. So was Bill Blast, of the renowned Blast Off DX Net. Andy Taco, New Mexico newcomer to the DX world, flew in, and so did a number of other dignitaries. The President wanted to come, but the Secret Service warned him that all the rf might break his hearing aid.

It was a grand, festive occasion. Everyone had a fine time whetting the proverbial whistle and square dancing and all, and the gift exchange started at 5 p.m.

Tondelayo, wearing a lavender jump suit like the one once used by an actress in a 007 movie, passed out the gifts. Bill Buckeye gave everybody present an autographed picture of Woody Hayes. Taco gave pieces of a balloon that never got off the ground in the great Albuquerque balloon race. Blast distributed engraved tips on how to get onto the list when his net is working. N5MS gave the great one a model Cessna airplane. gave WA5RPP a new pencil. Tondelayo gave W5OU a booklet entitled "How To Get a Bond Election Passed." Your reporter, honored to be there, was given a vacuum tube once used in Zedd's No. 1 linear; I plan to take it home as soon as I can rent a truck big enough to transport it.

The most touching moments came when Zedd, his momma, and Tondelayo exchanged

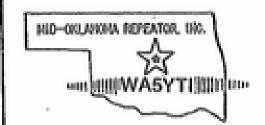
qifts.

Zedd gave his momma a lifetime subscription to Ms Magazine. He gave Tondelayo a beautiful engagement ring with a germanium crystal in it, telling her she could work the world with it.

Tondelayo gave momma a copy of her recently published memoirs, and to Zedd went

a photo album of herself.

Momma had dragged in a couple of huge packages. Tondelayo's turned out to be one of each from the current Fredricks catalogue. Tension and suspense mounted as Zedd tore open his box, scattering Santa stickers in



The October meeting of MORI was held at the Trade Winds Motel, Ie40 at Eastern. The first order not using the of business was the discussion of EOC building. Club President, Bob Allen N5EPV read two letters, one sent to him concerning the matter and the one he sent in reply. A three man committee consisting of Jerry Allen NSGVP, Doc Bowers KX5W, and Ron St. Laurent NDSS will be going to Mayor Andy Coates to try and get the situation cleared up. One fact was established that MORI has outgrown the small EOC building and parking lot. So anyone with a suggestion on a new location to hold the meetings would greatly be appreclated by all the MORI club members.

The Christmas Dinner meeting will be at Furr's Cafeteria, NW 63rd and MacArthur at 7:00 PM on December 4th. You can go through the line and fill your tray or just have coffee!! Door prizes will be awarded!!!!

Officers for the next year also were elected. Congratulations go to :-

President Bob Allen NSEPV Vice-President Bob Gamble N5GRA Secretary Elise Northern N5HII

Hope to see everyone at the Christmas Dinner!

Happy Holidays!

Treasurer Sid Gerber W5KOZ

NSHII

all directions.

"Wow," quoth Zedd as the contents were

revealed. "Jiminey!"

Momma had given her son an Epson QX-10 computer.

Readers may not fully appreciate the

significance of this moment. In all his illustrious career, Zedd had never meddled much with computers. Oh, he designed the IBM PC, but he never got into them for his personal use. And it is quite likely that he had never even looked at the Epson before.

Zedd pulled the machine out of the box, plugged it in, tossed the instruction booklet into the pile of trash to be burned, whanged a couple of diskettes into the dual drives, and -- oblivious to us all -- immediately began hammering on the keys while glaring at the screen with total intensity.

Two or three hours later, even through

dinner, he stayed at it.

By nightfall, he had strung some cable out to the root cellar, where he happened to have an old mainframe in storage. Muttering something about boolean algebra and relational databases, he retired to his lab for a little while and came back in a cloud of smoke (resin core solder) with a new board he had just whomped up. Opening the lid, he installed the board, hit a couple of keys, and sat down in front of the machine again, chuckling to himself.

It was a grim moment amid the holiday glitter. Even momma was grim. For this, she saw now -- too late -- could be bad.

We had all seen good hams go crazy when they discovered computers. Some of them didn't even have rigs any more. They filled page after page in the C&E with stuff the rest of us didn't understand.

Had the bug bitten Zedd?

As we filed silently out of Honor Roll at dusk, Bill Buckeye was heard to exclaim, "God bless us, every one."

We needed it. We who had for so long idolized the great man were deeply worried.

-- KU5B



#### Minutes of November Meeting

Meeting was called to order at 10:05 A.M. by President Jerry, KD5IS, with 8 members and guests present.

It was announced that Charlie, WA5JGU, was still in the hospital with a stomach problem. (Sec'y note: Heard on 75M Nov. 18 that he was expected to be in the hospital for another week.)

Ellard, W5KE, gave his Treasurer's report.

Bob, W5HXL, gave the CORA report. Ham Holiday 1985 was discussed. The VHF Club will staff the ARRL booth.

At the request of Chuck, K5NK, Jerry discussed the need for Extra and Advanced Class Amateur license holders to get involved with the Volunteer Examination program. Those who would like to help should contact Chuck.

It was announced that the new ARRL License Manual (80th Edition) is now available. It has questions and answers. It can be identified by the green cover and the words "with answers to questions" on the cover.

(Sec'y note. The 1985 ARRL Handbook is available now and it looks like a dandy.)

The group was brought up to date on the Christmas party plans. It will be Saturday, December 15, 7:30 P.M. at Red Cross Headquarters. Since Charlie, WA5JGU, has taken ill, the club will provide the punch, though it is not expected to be as good as Charlie's. Surely he will be well enough by that time to supervise its preparation. Members will bring money for donation to a worthy cause rather than exchange gifts.

Meeting ajourned at 10:55.

Minutes taken by Jerry, KD5IS, in the Secretary's absense. Joe, K5JB, Sec'y

#### Cookout Report

The Will Rogers Park cookout on November 9 was a fine business success with a crowd of about 25 attending. The weather was perfect, with no wind and the temperature just low enough to make the roaring fire feel just right. The circuit breakers to the lights had been pulled for the winter but there was power to the convenience outlets and it was a simple matter to string drop lights and tie in coffee pots et cetra for some of the modern conveniences.

The only note of concern was Charlie, WA5JGU's, absence. He had been taken to the hospital earlier in the day to see about a problem with his stomach. (On Nov. 18 latest report is that he is getting better but will probably be in the hospital for another week.) Jim, K5VRL, had called me with that news and to make alternate arrangements for heat for the chili hot dog topping. I had to do some hunting but came up with an old single burner Coleman stove that hadn't been used so long I had to experiment with it a while before I left home to make sure it would work. It did fine.

Needless to say, I had my share of hot dogs (burp!) and good fellowship. It is so simple to set these things up, I wish we would do it more often!

Joe, K5JB

#### Radio Club of America

This year I was fortunate enough to be able to make the pilgrimage to New York and attend the annual awards banquet of the Radio Club of

America. I particularlly wanted to attend this year because Steve Stevens, W5VCJ, was to be honored as a Fellow in the group.

I arrived at the New York Athletic Club early enough to take in the presentations that were scheduled for Friday afternoon before the banquet.

Bruce Kelly, Director of the Antique Wireless Association's Communications Museum started off the afternoon session by giving an excellent slide show presentation on the amateur radio station IBCG installation and operation during the Transatlantic test of 1921. The station belonged to Minton Cronkhite in Greenwich Connecticut and for the Transatlantic tests he and five other members of the Radio Club of America moved the radio shack to the middle of a field and installed a new top loaded vertical and reconfigured the transmitter to a master oscillator/power amplifier configuration, keying both to shift the former (eliminated backwave) and enable the latter (kick out the goo). The master oscillator ran roughly 150 watts while the power amplifier developed roughly 400 watts.

His slides were made from rare photographs of the station and the people who assembled and operated it. He showed, for comparison, some slides of the commercial transatlantic radiotelegraph stations (200 KW alternators running less than 100 kilohertz) and antennas (over a mile long!) at New Brunswick New Jersey, Chatham Mass., and other places.

In order to keep the congestion down, stations that were to participate in the transatlantic test were given secret coded messages to send. If correctly received, successful transmission and reception could be verified.

When Godley, 2XE, (another Radio Club of America membar), in Ardrossan Scotland first heard the test signals from 1BCG so well he quickly sent a wire to the Greenwich group saying to "send Msgs". The next day, the group sent "MSGS MSGS MSGS...". Godley had to send another wire clarifying what he meant.

A granite monument has been erected by the Radio Club near the 1BCG site to commemorate the operation.

The next session was a paper, Bandwidth Efficient Technology, presented by Gregory Stone, Stones Industries, Inc. He discussed information compression and various modulation schemes designed to pack the necessary information into smaller spectrum.

Stewert Meyers, W2GHK, then gave a thumbnail sketch of land mobile radio's history starting with photographs of early police "paging" systems and concluding with a description of typical cellular systems.

Bob Foosaner, Chief, Private Radio Bureau of the FCC, gave a bird's eye view of current Commission activities. Regarding Amateur Radio, he related activities to make the WARC allocated 30 meter, 12 meter, and 900 MHz spectrums available; our losing 2310-2390 MHz and 1215-1240 MHz; and the request by Sideband Technology, Inc. to use 216-222 MHz for land mobile Amplitude Compandered Sideband (RM-4831).

He described some fine tuning he expects on the Volunteer Examiner program: New questions, instruction clarification, reduction of 30 day period for notifying FCC of a planned test, and greater participation of Advanced and General Class license holding volunteers.

He stated that he expected the FCC's policies regarding repeater coordination to become more formalized. (Coordinated repeaters get preference in disputes brought before the Commission for settlement.)

He expects PRB-1, the radio antenna preemption

over local zoning bodies (an ARRL request tor declaratory ruling) to be the "hot potato" of the year, like "No Code" was last year. So far, it has been amateurs for, everybody else against. He related a humorous Saturday during the peak of the no code proposal. He took his car to the garage for some repairs and the attendent took him aside and said, "You know, I don't like that No Code thing!" Bob decided to walk home and on the way, a strange car circled him and stopped. The driver (a big guy about half again Bob's size) got out, identified himself as a high ranking member of the CIA, and said, "You know, I don't like that No Code thing!" Bob said the Amateurs need not fear the FCC slipping an undesirable rule through unnoticed.

He had some nice things to say about ARRL handling much of their rules and procedure interpretation workload. Perry Williams, WlUED, ARRL Washington Area Coordinator was present in the room to refresh Foosaner's memory on status of some of the current rulemakory on status of some of the current rulemakory activities. Perry, by the way, had copies of the 1985 ARRL Handbook hot off the press to give to Foosaner, and later to Fred Link (Link Radio's founder)

Later, at the dinner, I got to sit with Steve, W5VCJ, and Clara. As I already mentioned, he was named Fellow in the Radio Club of America for his contribution to Land Mobile Radio in Oklahoma and surrounding plains states. Steve worked for General Electric for 22 years. Prior to that, he had worked for Link Radio, a fact Freddy Link pointed out when making Steve's award.

At my other side was seated an extraordinary gentleman, Dick Egolf, W2WX, who had reached 89 years of age without showing any unusual signs of wear and tear. He described graduating from college with Allen B. DuMont and going to work for RCA. He started his radio operation in 1911 and is still active (CW only!). I couldn't believe it when he asked me to autograph his program!

The evening's banquet speaker was Morris Tanenbaum, the Chairman and Chief Executive Officer of AT&T Communications, who discussed some of the current technical developments of AT&T, Amateur Radio operation during the Olympics, and then, guess what ..., divestiture. He briefly covered history of the Bell System monopoly and how it came into being and how it was dissolved. He described emergency plans in effect if it became necessary to tie the various telecommunication networks together if needed for national defense. He expressed a positive position that now the question of monopoly is answered, all those competing in the market place are now unimpeded from moving forward, hopefully to the advancement of the industry and for the benefit of the customer. He took a couple of parting The first was complaint that AT&T is still regulated in matters that its competition is not. The last was that while the industrial revolution started in England, the beneficial growth caused by competition was realized in another country, the USA. He likened divestiture to the industrial revolution in importance to the telecommunication industry and said it remains to be seen whether the USA will realize the benefits from the competition spawned benefits.

All I can say after an evening of mingling with the "greats" of the communication industry is that I was overwhelmed. It is the third time that I have attended an awards banquet. I probably won't be able to make it every year but I will sure try often.

By the way, there are eleven Oklahomans in the Radio Club of America and nine of them are Amateurs. In Oklahoma City area they include Carl Drumeller, W5JJ; Ed Minderman, KA5EBB; Steve Stevens, W5VCJ; and me. Joe, K5JB

#### Stepper Motors

Have you ever wondered how a stepper motor works? I have. My curiosity was satisfied when a co-worker gave me a stepper motor handbook published by Airpax Corp. It contained not only a catalog of motors made by that company, but a comprehensive explanation of how various configurations work and how motors are selected for various applications.

A stepper motor is used when it is desired to control position of a device very closely. If a regular motor were used instead of a stepper motor, it would be necessary to have a shaft encoder to determine shaft position and use that information to control operation of the motor until its shaft was properly placed.

There are many different configurations of stepper motors. Most of them have two coils but the number of poles can vary to give various amounts of angular rotation per step. A motor that has 12 poles has 48 steps per revolution thus moves 7.5 degrees per step (360/48).

Figure 1 shows the arrangement between the poles of each of the two stators and the rotor. In each stator, the opposing poles are interleaved and are same in number as the pole pairs of the rotor. However, the two stator's poles are offset from each other by one half the angular pole displacement. The rotor has alternating poles of the same number as the stators.

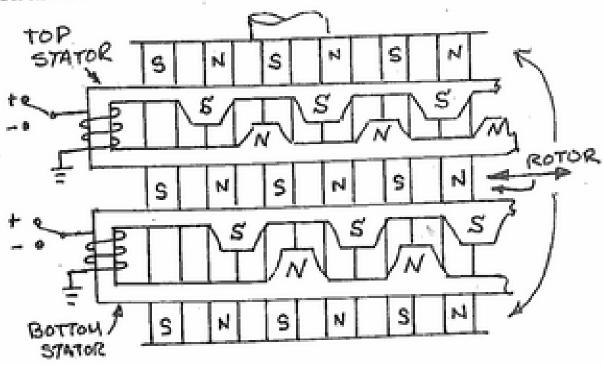


Figure 1. Stepper Motor Pole Arrangement

In Figure 1, the motor is at rest. Neither the top or bottom set of poles is able to align the rotor perfectly with its set of poles. If for example, the top stator has its coil voltage reversed, the poles will reverse polarity and the rotor poles will move to the right (like poles repel and unlike poles attract) until the bottom stator's poles create enough opposing force to balance the force from the top stator. This will happen when the rotor has moved half way from the position shown to the position where the next pole on the rotor has replaced its neighbor (opposite) pole. As shown in the sketch, the rotor is unable to stop in a position where its pole is exactly under a stator's pole (along as power is applied to both stators) because of the offset between the two stators.

Half steps are possible by simply switching off one of the stator coils. The rotor will move until its poles are aligned exactly under the the energized stator's poles. Holding torque is not as high and politioning is not as exact as when both coils are energized though.

Stepper motors can also contain two coils, wound in opposite sense, on each stator, permitting operation from a single voltage power supply. Voltage, in this case is switched between the coils rather than reversing polarity of the supply.

There are many other configurations of stepper motors (numbers of poles, polyphase) but they all seem to operate with these basic principles.

Joe, K5JB



#### COUNTY ARC

#### October Meeting

There were only six members Present at the October meeting with one guest, N5HIB, Harold Bass, who recently upgraded. Also, Dr. Paul our club President upgraded at the same time and is now known as NSHIC. Congradulations to both. A great deal was discussed at the October meeting, but since a quorum was not present nothing could be passed. It was mentioned that the club constitution and by-laws should be found and read at the next meeting. Several other things were discussed and were brought up again at the November meeting.

#### November Meeting

Fifteen members were present at this meeting, which constituted a quorum. (A quorum is defined by the constitution as half the membership). One of the members Present han't been seen for some time, and seemed to have an icicle hanging from his nose, having just got back from the North Slope of Alaska, welcome back Tony, WDSEAA. There were two quests Present who became new members, N5HIB Harold Bass, and W5ILH Ron Van Buren, welcome to the club.

The December Meeting will be held at the Western Sizzlin out by Gibsons discount. It will be a dinner of course and will start at 6 PM.

Since there was not a quorum last time there was another election of a new Sec/Tres. KD5FX was railroaded again. But that's ok fellas I don't mind.

The club constitution and by-laws were gone over, and several discrepancies were found between what was there and the way we do things now. It takes a 2/3rds majority to change this, so any changes will have to wait until later. Since everyone's membership expires at the end of the year, anyone who shows up at the January meeting and Pays their dues will be a member for 1985 and we'll automatically have 100% of the membership there. That makes the January meeting a VERY important one this next year so put it on your calender now, Jan 17th, BE THERE! or don't complain.

Club financies were discussed and it was suggested that because the Phone bill is increasing, that auto-patch users bear the majority of the Phone costs. This would mean an annual fee for auto-Patch users in addition to regualar club dues. This will be brought up again at the January meeting and hopefully a decision made.

The WSHZZ repeater was once again discussed, it was Pointed out that the sensitivity was improved and there was some more talk about reorienting the antenna again. By this time some fellas had left so our quorum was gone and nothing could be done. It was decided that all this would be brought up again when a quorum was Present.

Once again, don't forget about the December dinner meeting, it will be the 20th at 6Pm at the Western Sizzlin.

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**P**Hmmm now let me see, my soap box is around here somePlace..... Yes, here it is, this next little bit is for Commodore & IBM PC owners, the rest of you can tune out. I don't know about you guys, but I sure am tired of all this TRS-80 COCO stuff in the C&E, I'm sure that if we could get something out of you guys we could get it in the C&E too. I'd be happy to type it up on the trusty ole 64. How about a state wide organization for Commodore or IBM PC folks like the COCO group? I've mentioned this before and 9ot absolutly no response. I KNOW there are more 64 owners out there than COCOs so lets hear from you or just forget about doing anything worthwhile with your 64 and 90 back to Playing Jumpman. The same applies to you IBM PC users, there may not be as many of you, but you should be a vocal group. I am using both now quite a bit, and I'M interested in setting something up, how about you? Contact me at the address below, or I usually hang around on the 145.29 repeater in Enid after 9pm. This repeater has good coverage into the OKC area, and just about the whole north central Part of the state. By the way, it has been bought by the Enid amateur club since the owner, WA7UIB had to move to the Norman area. It's call is now . W5HTK.

KD5FX Dave Land 2512 Bonnie Ponca City, OK 74601 405-762-8616

Joe Harding, WA5ZNF

#### EDITORS NOTICE EDITORS PLEASE NOTICE

to Christmas coming next month at a very inopertune time the next issue of the Collector & Emitter will be done on the 12th (that's twelfth) of December. By editing it on that date I will be able to get it into the mail before the Christmas season. I would like to wish you all a Merry Christmas and thanks for supporting me during 1984.

#### GOOD OLE DAZE

Technology vs. Operating Capability

Please refer to the first of this series, "Transmitters" in the November C&E, page 23.

The state of the art, the economy and the degree of technical expertise dictated that most amateurs build simple rigs. Even equipment required by law had to be either borrowed or a less than satisfactory substitute used to measure frequency, modulation, etc. Everyone was his own engineer, production line and maintenance technician. Operating efficiency at best was very low by today's standards. Since the equipment varied greatly, operating efficiency varied also.

As mentioned in the previous article, the phone transmitters on HF were AM, double side-band with carriers. They were easy to build and get to produce an output of sorts. What did a busy phone band sound like with all the rigs sending out two more elements than were needed for voice communication?

To answer this question, let's climb into an imaginary time machine and set it for a winter's evening in 1938 at some active amateur's shack. ZZAP! After introductions, tune around on 75 meter phone. There are very strong, steady tones that interfere greatly with the voices you are trying to hear. The effect is overwhelming. Stay tuned to one spot for a while. All the tones stay put for a long time, indicating that long winded monologs are taking place. Why did we talk so long when we almost always had some degree of doubt that anyone was hearing our words of wisdom? Meanwhile, one tone goes off. What a relief, but you soon realize you can now hear the other tones better. The hetrodynes nearly always seem to be louder than the talking. Two or three howls are usually audible at one receiver setting. Trying to squeeze out through the cracks between the audible boulders are the voices. Some are copyable more or less. This is where amateurs learned to say everything twice everything twice. Some of still do it do it.

I have described a situation that seems almost hopeless. The bands were often packed solid in those days, contacts came with much difficulty during prime time. It is enough to make you feel a bit uneasy about the howl adversely affecting the 1984 calibration on your time machine. You take a chance and push the UNZAP button, returning to the era of super-performing, fantastic, computer controlled wonders of the now.

Operating went on despite the hetrodynes caused by the carriers spaced an audible distance apart. Some of the remedies practiced even today to gain some casual advantage were a must for survival in many instances in the ancient past, such as:

- 1. Operate when the band was less crowded. I obtained very good results on 75 at about 5 AM and again at about 4 PM. Half way across the U.S. with 20 watts on AM was feasible early in the morning.
- 2. Phone needed about twice the receive bandwidth as SSB. A crystal filter could be used to increase receiver selectivity. About 1950, a circuit could be built that would boost or reject an audio frequency. Everything we did added to the knob twisting.
- Band changing to avoid the crowds was practiced, but this added to the plug in coil collection.
- 4. A boost in power was practiced by a few, probably causing more problems than it solved.
- 5. A sure way to avoid Miss Q. R. Mary was to sell all the stuff to a young amateur and allow the license to expire. I did this in 1955, so there went W5FVH.

There's more.

73 & 88, Bill, WA5RAQ

# EDMOND AMATEUR RADIO SOCIETY 147,785/147.135

We first want to say we are really disgusted to think we missed last months C and E . but found we were surprised by the early publication and thought it was to be ready a week later.

Most important is our new member whose son is also a ham who is KAOCVJ and his handle is Ron. The new member is Bob Thomason KAOCUK and he is very interested, but appears to be a little mic. shy. We hope to change that very soon. Welcome aboard Bob and if we can be of any help to you just let us know. We have already met as of this publication at the E.O.C. in Edmond at 2:00PM Sunday November the 18 and I am going to show my 8mm film of the errection of KCSC's tower where our repeater resides. It is very interesting

as to the proceedures they use to errect a 400 foot tower etc.

As to the December meeting it has been decided to meet at Morrison's Cafeteria in Quail Springs Mall at 6:30PM on Friday

December 21, 1984. K5MJT and N58UJ did a lot of work on the repeater and some other items to get rid of KCSC audio bleeding through and it appears to but may still have a very be working ok now. audio that has been intermittent loss of very difficult to locate. They have put many hours into the machine and are due a lot of appreciation.Thanks!!!!!!!!!!! Guys!!!!!!! K5MJT and KA5NRX have been trying to generate a little activity on 40 meters and can sometimes be found on 7.270 about 6:30PM. You might give it a try and see how you like it. Not to leave out our infamous one, but he pulled off another one of unthinkables, but threatened maybem if we printed it so we won't. However we will say it was of course

NSDBM thats all.
Thill next time we write again here's a Happy
Thanksgiving to all of you.

· Until we meet

again!

Ain't that juncy

K5SKA

Wild Bill of course

The July and August issues of Amateur Radio arrived in the same mail, and each had something of interest to offer.

For July, the VLF range was the subject of a "do-it-yourself" article. In VK-land you need an Experimental license to operate in that range. Here, we can use unlicensed transmitters if the output is kept low (one watt) and the total antenna system is kept within specified limits. That issue also had a quite clear presentation of the uses of the dB unit and its relation to noise level as expressed in degrees Kelvin.

August starts a series on the feed-point impedance of an elevated vertical antenna. (You may recall there's a battle between those who say 36 ohms and those who proclaim 18.2 as the correct figure.) If you like to build receivers, there's info on a dual band (MF and HF) solid-state example, one with coils for 350 kHz to 500 kHz and 3 MHz to 8 MHz.

Fascinating reading is the word for the description (and picture) of a transmitter constructed from salvage (and make-do) parts; it was used to notify Australian armed forces that 200 men survived on the island of Timor.

These isolated 200 kept 15,000 crack Japanese troops busily engaged in trying to kill them!

Did you hear about the error that was made in the "Silent Key" column? The next issue came out with the following retraction, "We regret that the notice of Otto Autoseat's death was not true."

# Laughing matter

MISSING PERSONS BUREAU



"I don't want him back, I just want to know what he's up to."

It was Halloween and police were at the ready. One officer arrested a suspicious character in a convict suit, only to find he was a noted judge on his way to a costume party.

After being banished to the midnight beat, the policeman said he'd learned his lesson: "That's the last time I'll ever book a judge by his cover."

Two health-food devotees were discussing food preferences.

"I never eat any food with additives or preservatives and I avoid fruits and vegetables that have been sprayed. I do not eat meat or poultry that has been fattened on chemical feed," said the first one.

"How do you feel?" asked his friend.

"Hungry!"

When asked how he felt about LSD, the oldtimer replied: "I think he was a very good president."

The average time between throwing something out and needing it again is about two weeks.

There's one thing to be said about an egotist—he doesn't talk about other people. Have you heard about the senior citizen organization electing a junior vice president who is 98 years old? Now they are having trouble finding a senior vice president.

Grandpa reporting to Grandma on a telephone conversation:

"That was Jimmy Jr. He said he totaled his car."

Grandma: "That's nice. He was always good at arithmetic."

Onlooker: "Oh, what a glorious scene. I wish I could take these colors home with me."

Artist: "You will. You're sitting on my paint box."

A shopper reported to security that someone had taken \$30 worth of groceries from her car. "Did you have them inside the car or the trunk?" asked the investigator.

"No, of course not. I had them in the glove compartment."

Sign seen in a service station: "Courteous and efficient self-service."

"Captain, there's a personal message to you from the admiral," reported the communications officer.

"Well, read it to me."

The officer read: "Of all the blundering, stupid, dimwitted idiots, you take the cake."

"Have that decoded at once!" demanded the captain.

Looking worried, a man hurried into a flower shop and asked to see some potted geraniums.

"I'm sorry," said the florist, "we haven't any potted geraniums, but we have a nice selection of African violets on sale today."

"No, no, not violets," said the customer. "It was a geranium my wife asked me to water while she visited our grandchildren."

Café patron: "Why do you serve your customers instant coffee?"

Owner: "So they won't have any grounds for complaint."

On a visit to the United States an Englishman decided to go horse-back riding. The attendant asked if he wanted an English or western saddle.

"What is the difference?" he asked.

"The western saddle has a horn."

"I won't need the horn," said the visitor. "I don't intend to ride in heavy traffic."

He slept soundly in a deck chair as his wife, visiting with a neighbor, pointed to a stout wooden post driven into the nearby turf and explained: "For two years now, he's been referring to that post as the fence he's building."



"It's just a one-shot contribution, sir.

No follow-up phone calls. No

monthly pledges to meet."

The professor wrote on the blackboard, "Is Life Worth Living?" and then assigned his students to write a paper on the subject.

One fellow completed his paper immediately and eventually received an A for his efforts.

His one-line comment was: "It depends upon the liver."

23

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	ember	84	The managin assumes no ability for contained h	respons- the data erein.		Great Plains  AT K-BOBS  SCARS  DIMMER  KELLYS
2	3	MORI AT FURRS	ARDMORE 5	6	Aeronautical Center ARC	ARDMORE  COCO
Wheatstraw	CIMARRON	76'ers	EDIT EMITTER	QCWA ALTUS AREA		VHF Club CHRISTMUNS PARTY 7:30PM
9	EDMOND Club	AUTOPATCH	12 ARDMORE	KAY County  BUNNER  BUNNER  BUTERNSIE	EARS DINNER MORISONS	15
23	17	MERRY CHRIST MAS	19	20	21	22
30	31	25	26	27	18	29



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