

# Central Oklahoma Radio Amateurs

## COLLECTOR AND EMITTER



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Volume 1

October 1975

Number 9

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DOROTHY WB5ELG

Dorothy Dirickson is a faithful member of the Aeronautical Center Amateur Radio Club, Inc. who seldom, if ever, misses a regular meeting. Her ever present smile and friendly hello is something that all of us enjoy at the meetings. Dorothy is active in the following nets on 75 and 40 meters; Central States Traffic, Handicapped Net, 5th Region Net, Oklahoma 5 O'Clock Net, and the Gulf Hurrican Net. She was licensed in May 1971. It is this type of person that gives the rest of us Hams a reason to be proud to be a member of the ACARC.

The CORA Collector and Emitter is published monthly by CORA for the participating Amateur Radio Clubs in the Central Oklahoma area. Material contained herein may be reprinted without prior permission with credit given this publication. Address all correspondence to CORA Collector and Emitter, Box 15013, Oklahoma City, OK 73115.

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Central Oklahoma Radio Amateurs (CORA) Inc. was organized to enhance the cooperation of Oklahoma Amateur Radio Clubs in sponsoring activities of mutual interest to the Clubs and Radio Amateurs. Participation in specific CORA activities is optional with the individual Clubs. CORA officers are:

President	Ken Kendrick	WB5ECJ	751-4917
Vice President	Gary McCormick	WA5ETV	946-2898
Secretary	Ellard Foster	W5KE	789-6702
Treasurer	Bob Williams	WB5LHR	789-0987

Participating clubs for CORA Collector and Emitter:

#### AERONAUTICAL CENTER AMATEUR RADIO CLUB, INC.

Postal Station 18, Oklahoma City, OK 73169

Meetings: 8:00 p.m. on first Friday each month, Flight Standards Building, FAA Aeronautical Center. Club Station W5PAA.

President	Bob Ashby	W5HXL	942-5375
Vice President	Al Prince	WB5KCU	789-1160
Secretary/Treasurer	Bill Oliver	K5KDR	329-6333
Asst to President	Ken Ford	WB5KHU	528-8770

#### OKLAHOMA CENTRAL VHF AMATEUR RADIO CLUB, INC.

323 N. W. 10, Oklahoma City, OK 73103

Meetings: 8:00 p.m. on third Friday each month, American Red Cross, 323 N. W. 10. Club Station W5LOW.

President	Carl Drumeller	W5JJ	789-3788
Vice President	Tom Stinson	W5OZE	942-3714
Secretary	Jef Casey	WB5GWB	528-0252
Treasurer	Ellard Foster	W5KE	789-6702

#### MID-OKLAHOMA REPEATER, INC.

Meetings: 8:00 p.m. Tuesday of first full week each month, Oklahoma City EOC, 4600 N. Eastern. WR5ADE 34/94  
WR5ADF 07/67

President	Bill Noland	WA5FWD	354-5018
Vice President	Jim Kearns	WA5LFN	751-6035
Secretary/Treasurer	Don Graham	WA5TAW	733-3044

Mail dues to Sid Gerber, 829 E. Bouse, MWC, 73110

#### OKLAHOMA CITY AUTOPATCH ASSOCIATION, INC.

Meetings: 8:00 p.m. on third Monday each month. WR5ACB 22/82  
147.81/21

President	Frank McCollom	WB5JBL	751-3577
Vice President	Larry Dillard	WB5CWB	685-4065
Secretary/Treasurer	Jim Denman	WB5EOL	681-6048

7705 S. Charlotte Drive, Oklahoma City, OK 73159

Subscription Price: \$3.50 per year to non-affiliated club members



### THE PRESIDENT'S CORNER

Don't have much to say this month - you lucky people. Just waiting for the future activities to arrive. How do you like this great autumn weather we have been enjoying? Sure is great getting out to enjoy the great outdoors. I pulled the "Porta-Shak" out of its summer hibernation for a great weekend at Roman Nose, where we experienced everything in one brief weekend, i.e., hot, cold, rain and sunshine. The rain Sunday morning discouraged stringing up the trusty inverted vee, so radio operating was nil. Will have to improve on that during the next trip.

TEXOMA HAMARAMA is the "biggie" for October. Don't overlook this one, October 25/26, at Lake Texoma Lodge. Everything is shaping up for as good or better than last year.

Mini-Field Day, campout, weiner roast, or whatever you want to call it, is set for the weekend before Thanksgiving, November 22/23. Same as the last two years at Little River State Park on Lake Thunderbird. That's on Highway 9 east of Norman. This is a completely disorganized and informal affair, subject to the whims of weather and many other indeterminate factors. The only purpose is to have fun, and maybe do a little portable operating. Bring your camper, trailer, pup tent or whatever and spend the weekend - or - come on out and visit a while when you can make it. Plan on a weiner roast Saturday night about sunset and a covered dish dinner Sunday about high noon. Bring your own food, firewood, etc - you may be the only one there! Hope not.

See you all at the meeting Friday.

73  
W5HXL

FOR SALE OR TRADE: Several receivers, SX-101, Heath Mohecian, BC-348, National???

Looking for a good two-meter converter.

George, K5UHZ, 1219 Colorado Avenue, Chicasha, OK 73018, Phone 224-3861

Please send dues for Aeronautical Center Amateur Radio Club to Postal Station 18, Oklahoma City, Oklahoma 73169.

Dues are	ARRL	\$9.00
	ACARC	\$1.50
	Total	\$10.50

Any member of the Aeronautical Center Amateur Radio Club can have a copy of the club roster by writing a card or letter to the above address.



MINUTES OF THE AERONAUTICAL CENTER AMATEUR RADIO CLUB  
September 5, 1975

The meeting was called to order at 2007 by President Ashby. There were 30 members and guests present. Each member was asked to introduce himself and tell of any interesting things that happened in the previous month.

Don, WN5NIY, has been rebuilding a van. He also has been working some 40 meters. Charlie, WA5JGU, has been taking it easy. Gil, W5RB, has been checking into a lot of CW nets. Susan, WN4AKB/5, has made some 40 meter contacts. Dave, W4YDY/5, has just recently moved into Oklahoma City from Raleigh, North Carolina. Carl, W5JJ has just installed a new r.f. transmission and rotator lines under ground. Dorothy, WB5ELG, has been to Dallas. J.W., WA5KFT, has been to Keystone in the motor-shack. He enjoys operating portable Ellard, W5KE, along with Jerry, W5MCJ, travelled to Gene Autry in search of some electronic parts. Ed, K5LIL, has had 2 meter problem (rotator), then the H.F. rig went out. He got the H.F. fixed and back on but the 2 meter rotator is still stuck. Father John, K5HMI, works mostly teletype now and has about 25 countries. Thurman, K5JEA, is very interested in DX, but the current sunspot cycle makes it difficult. He has all but 5 countries worked. Ivan, W5HFU, helps his son in a new electronic store. He intends to put up a 2 meter beam. Will, W0NMM, visiting from St. Louis, Missouri, brought along the \$9.95 clock from S.D. sales. Sure is a neat clock. Elmer, W5BKN, has travelled for about 2 months and worked alot on 2 meters. Jerry, W5MCJ, is still trying to get some antique telegraph parts. Al, W5TJL, has been to Tennessee. H.O., WA5MLT, has put up a 45 foot tower and has his 2 meter ringo mounted upon it. Still awaiting the new upgraded license from FCC Marvin, K5HQP, has the S.D. clock also. His Atlas rig went out and has been returned to be repaired. George, W5NTL, took a trip to New Mexico - got in some camping and fishing. He is going to repaint his tower and repair his antenna. Lloyd, WA5PPA, had a good vacation in Mexico. Fred, K5HFN, is still recuperating from the Ham Holiday and getting ready for Texhoma. Bob, W5HXL, has been staying inside but will soon start roaming again.

A word of thanks was extended to Ellard, W5KE, for getting the Collector & Emitter, C.Q., 73, and QST bound into volumes of one year each. The books had to be taken to a bindery in Muskogee.

It was reported that Melvin, K5VWQ, is repainting the club generat and trailer. He has it about 2/3 completed.

The meeting was adjourned for coffee and doughnuts at 2102.

Billy J. Oliver, K5KDR  
Secretary & Treasurer



Gettysburg reports that few amateurs are using the new post office box system as yet. Sending your Amateur Radio License Application to Box 1020, Gettysburg PA 17325 will move it through the system weeks faster than the old general address.

H. R. Report

Oklahoma City National CB Jamboree last month reports, WB5DSH, found Varmint 2, 3, and 5KW 27MHz liniars for sale just inside the door with FT-101s and TR-4Cs all over the place.

H. R. Report

It seems a shame that there are those who cannot stay within the rules. Your editor is going 2 meters and somehow feels that an antenna on his auto will identify him with "CB". Guess the only thing we Amateurs can do is to encourage the CB people to join us and show them how to operate within the rules.

Editor

Colorado Council of Radio Clubs has a stolen equipment coordinator---WAØZCS maintains a statewide listing of hot ham gear, an excellent idea well worth copying.

H. R. Report

How about that Oklahoma Hams! We need some volunteers to set up one in our fine state.

Editor

DUTCH ABOLISH CB SERVICE in Netherlands after widespread abuses convince officials that cleanup is impractical. All 27 MHz licenses have been revoked, and mobile monitoring vans have been shutting down illegal stations by marching in the door and confiscating their equipment. The nation wide crackdown, reported in Dutch papers as being against "illegal radio amateurs" (demonstrating that media confusion as to who's a ham and who is something else is not a uniquely American problem) has been understood to be quite effective.

H. R. Report

How about the Dutch! Seems as if the FCC has a tiger by the tail with our "CB" program. Seems as if some CB operations are hampering our law enforcement people by reporting "Smokey" locations along highways when in fact there is a manhunt in progress. Can you imagine how much help this might be to a criminal on the run if he had a CB. Question, Who has the stolen CB and amateur gear? Answer, the criminal.

Editor



Club  
NEWS

W5LOV  
The Elmer Gooder Memorial  
Station

FROM THE PRESIDENT

FALL IS HERE. TRADITIONALLY, FALL IS THE TIME OF RENEWED INTEREST IN RADIO OPERATION. SUMMER SPORTS, SUMMER TRAVEL, SUMMER ATMOSPHERICS ALL ARE FADING INTO THE PAST. FALL IS THE TIME TO TAKE A CRITICAL LOOK AT YOUR ANTENNAS, FOR SOON IT'LL BE TOO COLD AND TOO WINDY TO UNDERTAKE AERIAL WORK. WHILE THE STREAK OF AMBITION IS UPON YOU, IT MIGHT BE WELL TO CONSIDER REARRANGEMENT OF GEAR IN YOUR OPERATING SHACK.

IT'S TIME FOR RADIO CLUBS, TOO, TO TAKE A FRESH LOOK AT THINGS. TECHNICAL PROGRAMS, FOR INSTANCE, FOR WITH THE LESSENING OF OTHER DISTRACTIONS, THERE'S MORE OPPORTUNITY FOR A DEEPER LOOK INTO THE INTRICACIES OF THIS AVOCATION OF OURS. WHAT DO YOU, AS A RESPONSIBLE MEMBER OF THE OKLAHOMA CENTRAL VHF AMATEUR RADIO CLUB HAVE IN MIND FOR A CLUB PROGRAM? AND, EQUALLY IMPORTANT, HOW DO YOU PROPOSE TO BRING ABOUT SUCH A PROGRAM?

IT'S AMAZING, JUST HOW EASY IT IS TO SIT BACK ON ONE'S HAUNCHES AND BAY AT THE MOON OVER HOW THE INDEFINITE "THEY" ...OR, SOMETIMES, A CONVENIENT INDIVIDUAL TO FINGER AS A SCAPEGOAT... HAS FAILED TO BRING ABOUT SOME DESIRED STATE OF BEING. BUT THE SAD TRUTH OF THE SITUATION OFTEN IS THAT THE PERSON SOUNDING OFF THE MOST VOCIFEROUSLY IS THE ONE WHO HAS DONE THE LEAST TO ACHIEVE THAT DESIRED END.

ENOUGH OF THAT!

AT MY SHACK, THANKS TO THE HARD WORK OF BOB HOFFER ...NO CALL AT PRESENT BUT A WHOLE RAFT OF FORMER CALLS... THERE'S A NEW RG-8B/U FEEDLINE TO MY HF TRIBAND BEAM. THE COAX, AS WELL AS THE ROTOR CONTROL CABLE, ARE UNDERGROUND FROM THE TOWER TO THE OUTSIDE RELAY BOX. THE SAME IS TRUE FOR MY VHF BEAM, TOO. AND THE COAX FOR THE TWO HF DIPOLES RUNS UNDERGROUND, TOO. WHILE BOB WAS UP THE TOWER, HE PUT A BALUN AT THE FEEDPOINT OF THE HF BEAM..... NOT THAT I THINK IT MAKES ANY SIGNIFICANT DIFFERENCE.

WHICH LEADS INTO THE SUBJECT OF VSWR. MY 80-METER DIPOLE SHOWS 11:1 VSWR AT 3500 KHZ AND 7.5:1 AT 4000 KHZ.....AND, MIRABILE DICTU, IT GETS OUT JUST AS WELL AT THOSE ENDS OF THE BAND AS AT 3750 KHZ WHERE THE VSWR IS UNITY. AND THE TUBES IN THE FINAL LAST FOR YEARS AND YEARS AND YEARS. NO TVI. IN FACT, NONE OF THOSE HORRENDOUS THINGS THAT MYTHOLOGY ATTRIBUTES TO ANY VSWR ABOVE 2:1. AND IT SEEMS THAT SUCH DX AS VR4DX AND VS6DO READ MY 80-METER SSB SIGNALS ABOUT AS WELL AS OTHERS FROM THIS PART OF THE COUNTRY. \*QED CARL, W5JJ

MINUTES OF SEPT 19 MEETING

THE MEETING WAS CALLED TO ORDER BY VICE PRESIDENT, TOM, W5OZE AT 8:30 P.M. THE TREASURER, ELLARD, W5KE, REPORTED THAT \$150 WAS RECEIVED FROM CORA, CLOSING THE BOOKS ON HAM HOLIDAY 1975. BALANCE IN THE CLUB TREASURY IS \$308.32. J. W., WA5KFT, VOLUN-

\*BEATS ME, I DON'T KNOW WHAT QED IS - ED



## Club NEWS

W5LOW  
The Ham Radio Magazine

TEERED TO SERVE AS VHF CLUB REPRESENTATIVE TO CORA. THE CLUB STILL NEEDS AN ALTERNATE. KEN, WB5KHU, SET SATURDAY, SEPT 27, AS A WORK DAY TO PULL MAINTENANCE ON W5LOW, THE CLUB STATION. THE HF BEAM ROTOR HAS THE LIMIT SWITCHES ALL MESSED UP. BOB, W5HXL VOLUNTEERED TO DO NECESSARY CARPENTRY WORK TO GET THE NEW 2M FM RIG INTEGRATED INTO THE STATION. ON FRIDAY, OCT 17, A WEINER ROAST AT WILL ROGERS PARK WILL REPLACE THE REGULAR CLUB MEETING. BRING YOUR OWN WEINERS. WA5TRS PRESENTED PROGRAM ON TEMPERATURE COMPENSATION IN OSCILLATORS. HE DEMONSTRATED HIS NEW HP-25 PROGRAMMABLE CALCULATOR WITH SOME AMATEUR RADIO APPLICATIONS. MEETING WAS ADJOURNED FOR COFFEE AND DONUTS.  
JEF, WB5GWB, SECRETARY

### REPORT FROM WA5OUU

THE SUMMER IS OVER AND IT WAS A GOOD ONE FOR OUR FAMILY AND MUCH TIME WAS SPENT ON THE LAKES. OUR FIRST TRIP WAS FOR A THREE-DAY WEEKEND AT WESTERN HILLS LODGE ON FT. GIBSON LAKE THE FIRST WEEKEND IN JUNE. WE TOOK OUR BOAT AND REALLY ENJOYED IT THERE. OUR 15 YEAR OLD DAUGHTER, DIANA, LEARNED HOW TO SKI THAT WEEKEND. ON FRIDAY EVENING, THE 20TH OF JUNE, WE TOOK BOTH THE TRAILER AND BOAT AND WENT TO LAKE ATOKA AND SPENT THE WEEKEND WITH FRIENDS THERE. THAT SUNDAY EVENING WE WENT ON TO LAKE MURRAY FOR THE WEEK. WE CAME HOME THAT FRIDAY EVENING TO REORGANIZE OURSELVES FOR ANOTHER WEEK OF VACATION. THEN, ON MONDAY, JUNE 30, WE TRADED TRAVEL TRAILERS, FROM A 16 FOOT TO A NEW 26 FOOT MOBILE SCOUT. THE NEXT DAY WE LOADED UP AND WENT TO LAKE EUFAULA AND REALLY ENJOYED IT THERE WITH OUR BOAT AND NEW TRAILER. AFTER THAT WEEK, WE WERE HOME THREE WEEKS, THEN DECIDED FOR A WEEKEND AT LAKE THUNDERBIRD. IT WAS SO ENJOYABLE WE RETURNED TO THUNDERBIRD THREE WEEKS LATER. AFTER OUR LAST TRIP TO THUNDERBIRD, THE BOAT WAS TAKEN INTO THE SHOP FOR REPAIRS ON THE LOWER DRIVE UNIT AND IS STILL THERE AWAITING PARTS.

THE TRAILER IS DOING FINE NOW AND MAYBE I CAN FIND TIME TO SET IT UP FOR A HAM SHACK FOR THIS WINTER. IF GOT OUT SATURDAY AFTERNOON SEPT 13 AND GOT MY SWAN 260 WORKING. I TALKED TO TWO AMATEURS IN BARTLESVILLE FOR AN HOUR ON 75 AND THE OLD RIG WORKED FINE. NOTHING ELSE TO REPORT IN THE WAY OF RADIO OPERATION EXCEPT I DID MANAGE TO SPEND TWO HOURS AT THE OVERHOLSTER SITE ON FIELD DAY. 73 DICK, WA5OUU

### SOURCE OF SAFETY INFORMATION

ALL ELECTRICAL EXPERIMENTORS SHOULD REVIEW THE IMPORTANCE OF GROUNDING AN ELECTRICAL CIRCUIT. LACK OF PROPER GROUNDING IS A MAJOR CAUSE OF CIRCUIT FAILURE RELATED LOSS OF LIFE AND PROPERTY DAMAGE.

"THE NATIONAL ELECTRICAL CODE" IS THE BEST SOURCE OF INFORMATION AVAILABLE FOR SAFE GROUNDING RULES. HAM OPERATORS NEED TO USE THIS REFERENCE ANY TIME THEY ARE GROUNDING CIRCUITS OR REVIEWING THEIR SAFETY MEASURES. APPROVED BY THE "NATIONAL FIRE PROTECTION ASSOCIATION" AND RECOMMENDED BY THE "NATIONAL BOARD OF FIRE UNDERWRITERS" THE CODE BOOK IS ALSO TESTED AND ACCEPTED BY THE



Club  
NEWS

W5LOW  
The Elmer Goodwin Memorial  
Station

"AMERICAN STANDARDS ASSOCIATION." COPIES CAN BE OBTAINED FROM NFPA, 470 ATLANTIC AVE, BOSTON MASS 02210. PRICE IS \$5.50.

HAM OPERATORS, WHO SURVIVE WITHOUT ACCIDENTS, ARE CAUTIOUS PEOPLE WHO READ LABELS. "NATIONAL FIRE PREVENTION WEEK", OCTOBER 6-10 IS A GOOD REMINDER FOR "HAMS" TO PLAY IT SAFE. MAY EVERY DAY BE HAPPY AND ACCIDENT FREE FOR EACH OF US. AL, WA5G01

### RADIO RIPOFF

WELL, IT FINALLY HAPPENED. SOMEBODY GOT ME. I LEFT AN HR-2 IN THE CAR ONE SATURDAY NIGHT IN FRONT OF A MOVIE THEATER AND GOT IT RIPPED OFF. I HAVE MENTIONED THIS KIND OF PROBLEM BEFORE BUT IN A DETACHED SORT OF WAY, REPORTING IT AS NEWS. NOW I'M AGGRAVATED.

THE CLOSEST I HAVE COME TO THIS KIND OF THING WAS ALSO IN FRONT OF A MOVIE HOUSE WHERE PERSONS UNKNOWN TRIED TO REMOVE A BUG CATCHER. I HAD INSTALLED IT WITH LOCTITE AND THEY ONLY SUCCEEDED IN TWISTING UP THE COIL AND BREAKING THE PLASTIC ON THE VEHICLE MOUNT. MUST HAVE FRUSTRATED THEM BECAUSE THEY PROCEEDED TO WORK THE PAINT OVER WITH A CHURCHKEY OR SIMILAR TOOL.

THE RIPOFF OF THE HR-2 HAS SPURRED ME OUT OF MY LETHARGY. FOR SOME TIME I HAD BEEN WORKING ON A RADIO LINKED ALARM FOR THE HARLEY. THE TRANSMITTER WAS TO BE IN THE 160 METER BAND AND A RETUNED SHIRT POCKET AM RADIO WAS TO BE MY RECEIVER. I WAS HAVING TROUBLE GETTING A REASONABLE FIELD STRENGTH OUT OF THE CONFINES OF THE ALARM BOX ON THE MOTORCYCLE. I DECIDED THE WAY I WAS GOING WAS MICKEY MOUSE. WHAT I REALLY NEED IS A GOOD QUALITY, RUGGED PAGER RECEIVER AND A TONE MODULATED VHF TRANSMITTER MODULE. IT REALLY SHOULD HAVE ABOUT A HUNDRED YARD RANGE TO BE PRACTICAL.

MOST PEOPLE ARE SATISFIED TO SCARE BURGLARS OFF WITH HONKING HORNS AND THE LIKE. PERSONALLY, I WOULD LIKE TO PUT THE ARM ON ONE AND SEE HIM IN JAIL. THAT'S WHY I LEAN TOWARD THE SILENT ALARM ROUTE WHEN I'M NEARBY.

AS LONG AS I'M RILED UP I'LL TELL YOU WHAT ELSE I WOULD LIKE TO DO. TAKE A CIGAR BOX. PAINT IT BLACK AND GLUE SOME KNOBS ON IT. INSIDE, PUT ONE THOUSAND MAD BUMBLE BEES AND TWO THOUSANDS FLEAS, OF THE CAMEL VARIETY, SPECIALLY TRAINED TO GO FOR THE ARMPITS. PUT IT IN THE CAR AND GO TO THE MOVIES. JOE, WA5TRS

### FOR SALE

THE FOLLOWING WAS PHONED IN BY DON, W851EK, FOR THE LAST ISSUE OF COLLECTOR & EMITTER BUT WAS ACCIDENTALLY LEFT OUT. MOST OF THE MATERIAL SHOULD STILL BE AVAILABLE.

FROM THE ESTATE OF W5HXC - SWAN 240, NATIONAL 270, JOHNSON VIKING RANGER, MISCELLANEOUS POWER TUBES, INCLUDING 304TL AND TH, 813, 872, 3B28, 810, 811A, 250TH, 450TH, 100TH, 7213... SCOPE TUBES: TWO 5", ONE 3", 3C24. ALSO, THERE ARE METERS OF MANY SIZES AND



SHAPES, MISCELLANEOUS TRANSFORMERS AND OTHER ELECTRONIC PARTS.  
CONTACT MR. FRAMPTON, 612 N. DILLON, MOORE, PHONE 794-8486

#### ALSO FOR SALE

LATE MODEL SWAN 350 TRANSCEIVER WITH MATCHING POWER SUPPLY AND  
SPEAKER. ONLY USED BY A LITTLE OLD LADY ON SUNDAY MORNINGS TO  
WORK A FEW ZS'S, HV'S AND JT'S. \$275.00 JEF, WB5GWB, 528-0252

#### GUEST AUTHORS

THE RANDOM SELECTION OF CONTRIBUTORS FOR C & E IS WORKING. ONE  
OF THE CHOSEN THREE FOR THIS ISSUE, JOHN, WN5KSO, COULD NOT BE  
LOCATED SO I WON'T BAD MOUTH HIM ABOUT NOT PRODUCING. THE THREE  
FOR NEXT MONTH ARE:

MAC MCCLURG, W5WZM  
LEON JOHNSON, WA5OYY  
ELLARD FOSTER, W5KE

MAC AND ELLARD FOUND OUT ABOUT IT AND ZAPPED ME WITH THEIR  
ARTICLES ALREADY. THOSE GUYS ARE GO GETTERS!

I NEED ANY MATERIAL THAT YOU WANT IN NEXT ISSUE BY OCT 15. SEND  
IT TO BOX 10674, MIDWEST CITY, OKLA., 73110 OR CALL ME AT  
732-0676. HOW ABOUT SOME CIRCUITS OR HOW TO DO IT ARTICLES?  
JOE, WA5TRS

#### LICENSE CLASSES

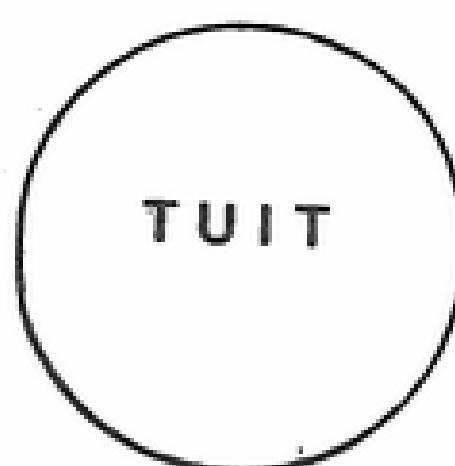
THE FIRST FOUR CLASSES HELD AT THE OKLAHOMA MILITARY ACADEMY HAVE  
BEEN A BIG SUCCESS SO FAR. THE FIRST NIGHT STARTED OFF WITH TOO  
LONG AN INTRODUCTION AND NOT ENOUGH TIME TO COVER MUCH THEORY.  
THERE WERE AROUND 90 OR 100 PEOPLE ATTENDING. THE SECOND NIGHT,  
RATHER THAN HAVING FALLOUT, AS EXPECTED, HAD MORE. THE TOTAL  
WAS 120 TO 130 PEOPLE. THE NOVICE CLASS HAD TO BE DIVIDED INTO  
TWO GROUPS. IT WAS DIVIDED BY EXPERIENCE LEVEL.

THE VOLUNTEER INSTRUCTORS HAVE TURNED OUT IN NUMBER AND QUALITY  
SUFFICIENT, I THINK, TO RESULT IN SOME FIRST CLASS INSTRUCTION.  
ONLY TIME WILL TELL HOW SUCCESSFUL THE CLASSES WILL BE IN TERMS  
OF LICENSING AND UPGRADING. FOR A WHILE WE WERE WORRIED THAT  
THE NUMBER OF PARTICIPANTS WOULD HAVE TO BE LIMITED BUT THE  
NUMBER HAS STABILIZED.

FURTHER COURSE OFFERINGS SHOULD BE MADE A LITTLE EASIER BY WHAT  
THE INSTRUCTORS AND I ARE DOING. DURING THIS SESSION I HAVE  
PREPARED INSTRUCTOR GUIDES COVERING ALL THE INFORMATION NECESSARY  
TO PASS FCC EXAMS. THE INSTRUCTORS ARE TRYING TO USE THE GUIDES  
AND ARE EDITING THEM AS THEY GO. AFTER THE COURSE IS COMPLETED,  
I WILL TRY TO INCORPORATE THE RECOMMENDATIONS INTO REVISED COPIES  
WHICH MAY BE USEFUL TO FUTURE INSTRUCTORS. TIME WILL TELL  
WHETHER IT IS WORTH THE TROUBLE. JOE, WA5TRS

#### JUST WHAT YOU'VE ALWAYS NEEDED:

All your life you've heard people say "I'll do it as  
soon as I get a round TUIT." At the right is a *round*  
*TUIT!* Cut it out, keep it handy and you will never  
again have trouble getting around to all those little  
things you never had time for! You will now have a  
round TUIT in your possession at all times.

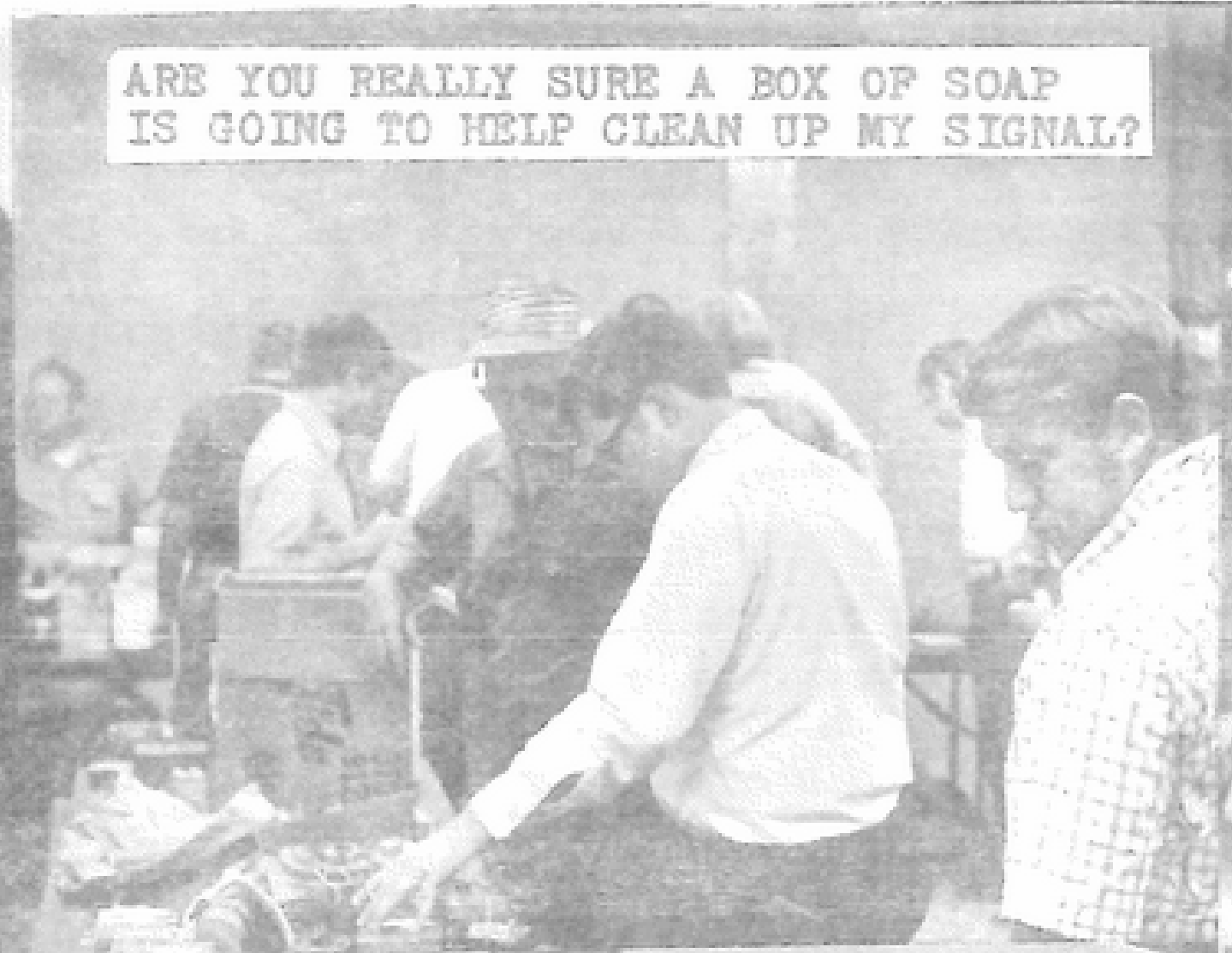


From  
WB5D  
CARRIER

REGISTRATION OPENED  
EARLY ON AUGUST 2nd



ARE YOU REALLY SURE A BOX OF SOAP  
IS GOING TO HELP CLEAN UP MY SIGNAL?



NOW WE'LL DRAW FOR  
THE LUCKY WINNER OF  
A CUP OF COFFEE



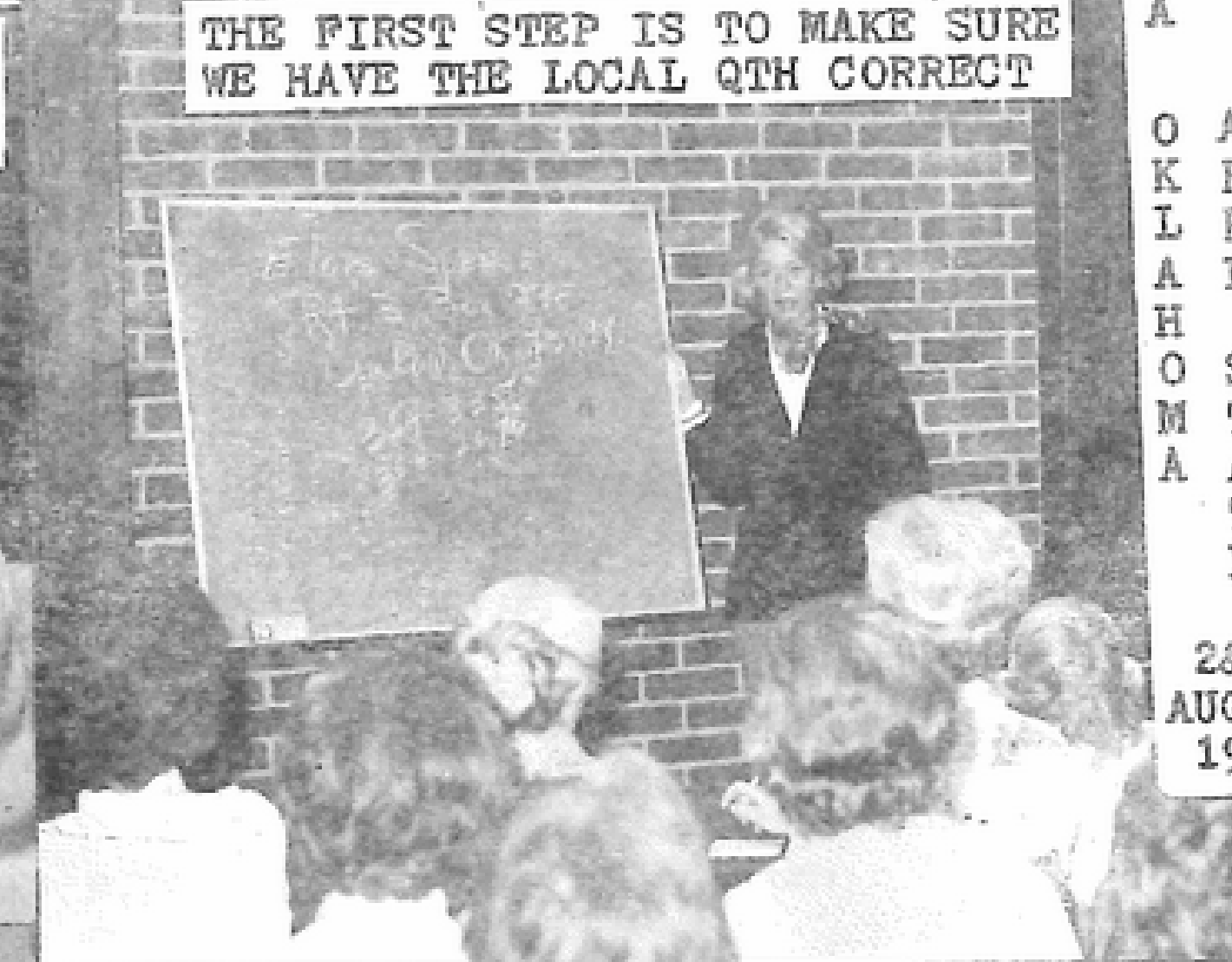
JUST AS SOON AS WE  
GET THE PA WORKING  
WE WILL INTRODUCE  
THE NEXT SPEAKER.



A VARIETY OF ARTS AND  
CRAFTS WERE DISPLAYED  
FOR THE YLS AND XYLs



THE FIRST STEP IS TO MAKE SURE  
WE HAVE THE LOCAL QTH CORRECT



THERE SEEMED TO BE  
NO END TO THE DRAWINGS



NOW WE HAVE A  
QUESTION FOR THE  
GENTLEMAN IN THE  
UPPER BALCONY



O H  
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28  
AUG  
19

QRM BEFORE THE AFTERNOON'S  
PROGRAM BEGAN



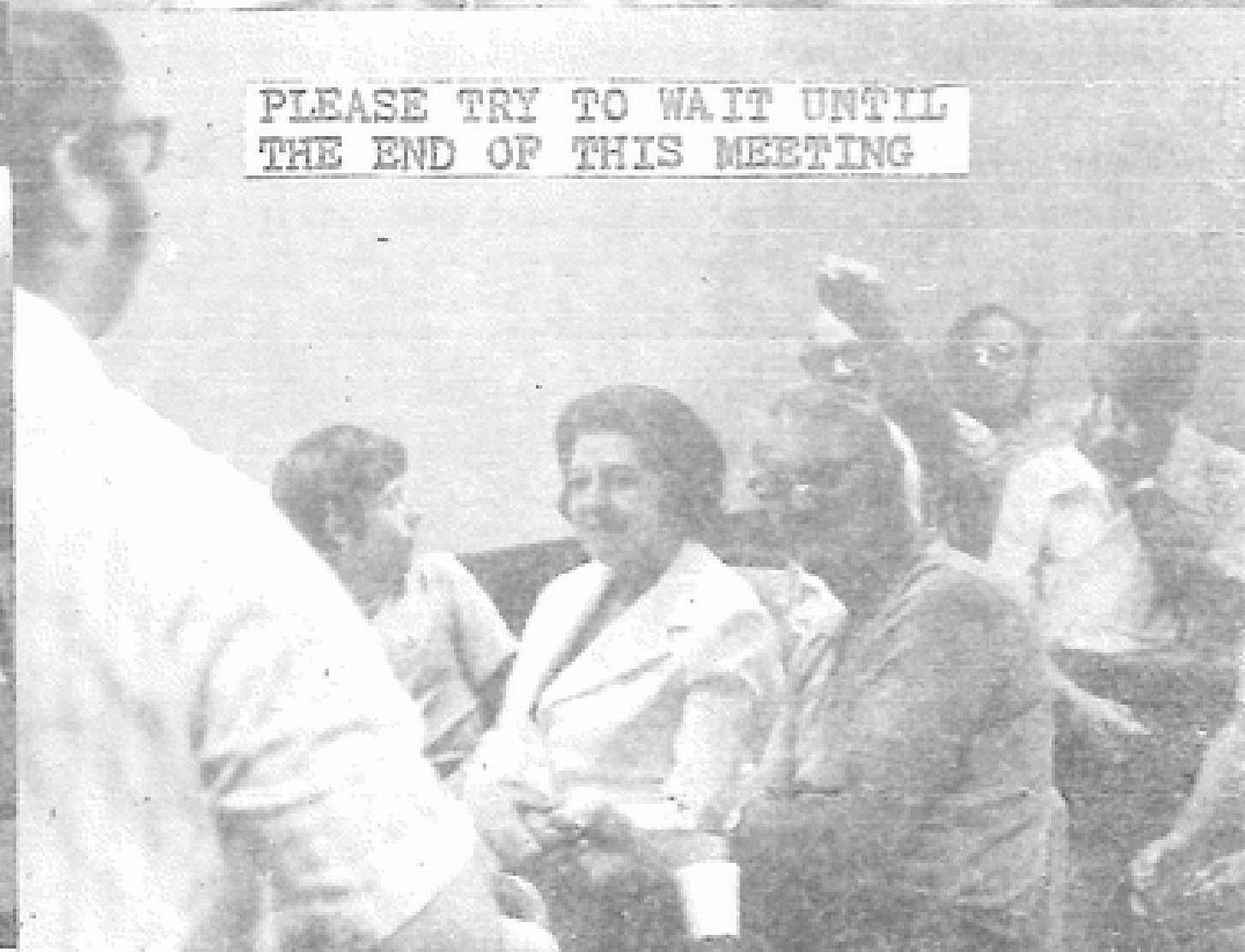
I REALLY DON'T KNOW WHAT  
IT IS EITHER. ASK CHARLIE.



OKLAHOMA'S LIEUTENANT  
GOVERNOR MAKES A POINT



PLEASE TRY TO WAIT UNTIL  
THE END OF THIS MEETING



LOOK, EVERYBODY KNOWS THAT PAPER  
BEATS A ROCK ANYTIME!



0-73...I KNOW THERE'S AN 0-73  
ON ONE OF THESE CARDS



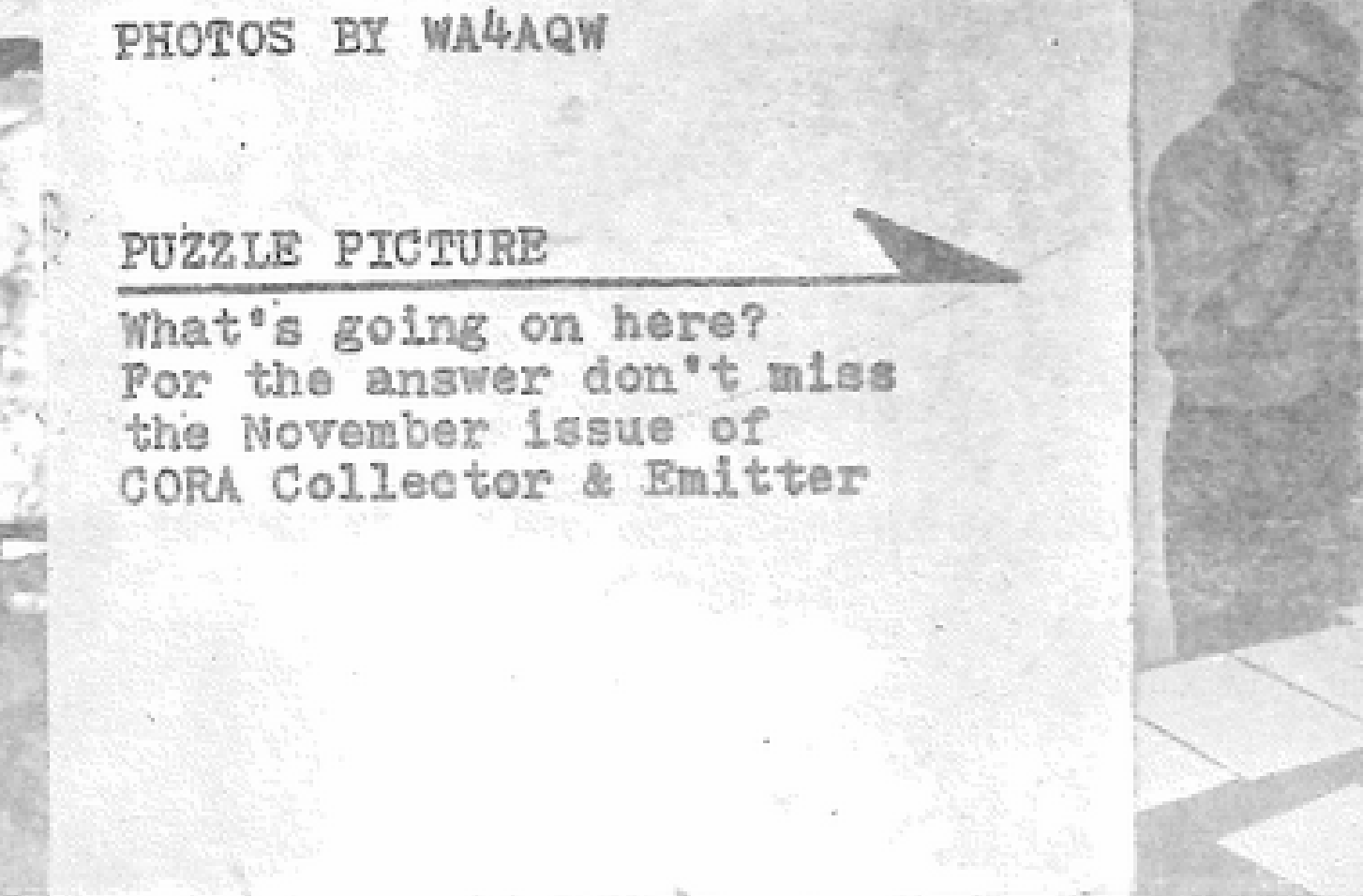
CORA PRESIDENT WB5ECJ  
GETS THINGS ROLLING FOR  
THE GRAND PRIZE DRAWINGS



PHOTOS BY WA4AQW

#### PUZZLE PICTURE

What's going on here?  
For the answer don't miss  
the November issue of  
CORA Collector & Emitter



HOLIDAY  
CONVENTION  
AUGUST  
1975

## REMOTE MONITORING

A remote monitoring hookup that I built might give you some ideas for a similar system. I wanted to be able to monitor a repeater while I am in other areas of the house away from the rig.

A distribution system of speakers - one in each room - appeared to be the way to provide more continuous monitoring. Would the XYL tolerate another speaker in each room along with the necessary wires? I had already installed a speaker in each room to provide a music distribution system that is connected to the Hi Fi (mono). Since I built the Hi Fi, I felt free to add switches and wires to it so that I could use the existing remote speakers for either the Hi Fi or for monitoring 2 meters.

The hookup used is shown in the figure. You will very likely find some other layout better for you, but my hookup may provide some ideas. Only one wire had to be added to the maze that spiderwebs throughout the house. The XYL agreed to the addition of this one wire. The wire is indicated in the diagram. The speaker ground wire was already connected from the Hi Fi to the remote speaker in the shack.

The SPEAKER SWITCH (S-1) located at the amateur equipment operating position must be switched to the desired position when the equipment is turned on. The SPEAKER SWITCH may be changed at any time since the contacts are shorting type so that a load is always presented to both receivers. The load impedance is reduced during the instant that the switch rotary contacts bridge across two stationary contacts. A possible danger to equipment occurs during this bridging of contacts. At this instant, the output terminals of both the HF and 2 meter receivers are connected together. If the gain is turned up high on one rig and the audio output stage of the other rig has a low power transistor, the latter could conceivably be ruined by a strong pulse from the other rig. I made no tests to see what magnitude of voltage was likely. I've ignored the problem.

The only change to the Hi Fi was to replace the SPST power switch to DPDT (S-2). One section of the added switch provided the power switching. The other section connects the remote speakers to the speaker switch when the Hi Fi power is turned off. When the Hi Fi power is turned on, the remote speakers are connected to a separate Hi Fi amplifier that I am using especially for feeding the remote speakers.

We have another hazardous situation in that the load is removed from the 2 meter audio output stage when the Hi Fi is turned on. A shunt resistor could be used to provide some load. I try to operate one equipment at a time.

An attempt was never made to match the impedances of the remote speakers to the Hi Fi amplifier, nor to the 2 meter receiver. There was a level difference problem, so speakers were connected in various series and parallel combinations to get nearly equal sound levels in the various rooms.

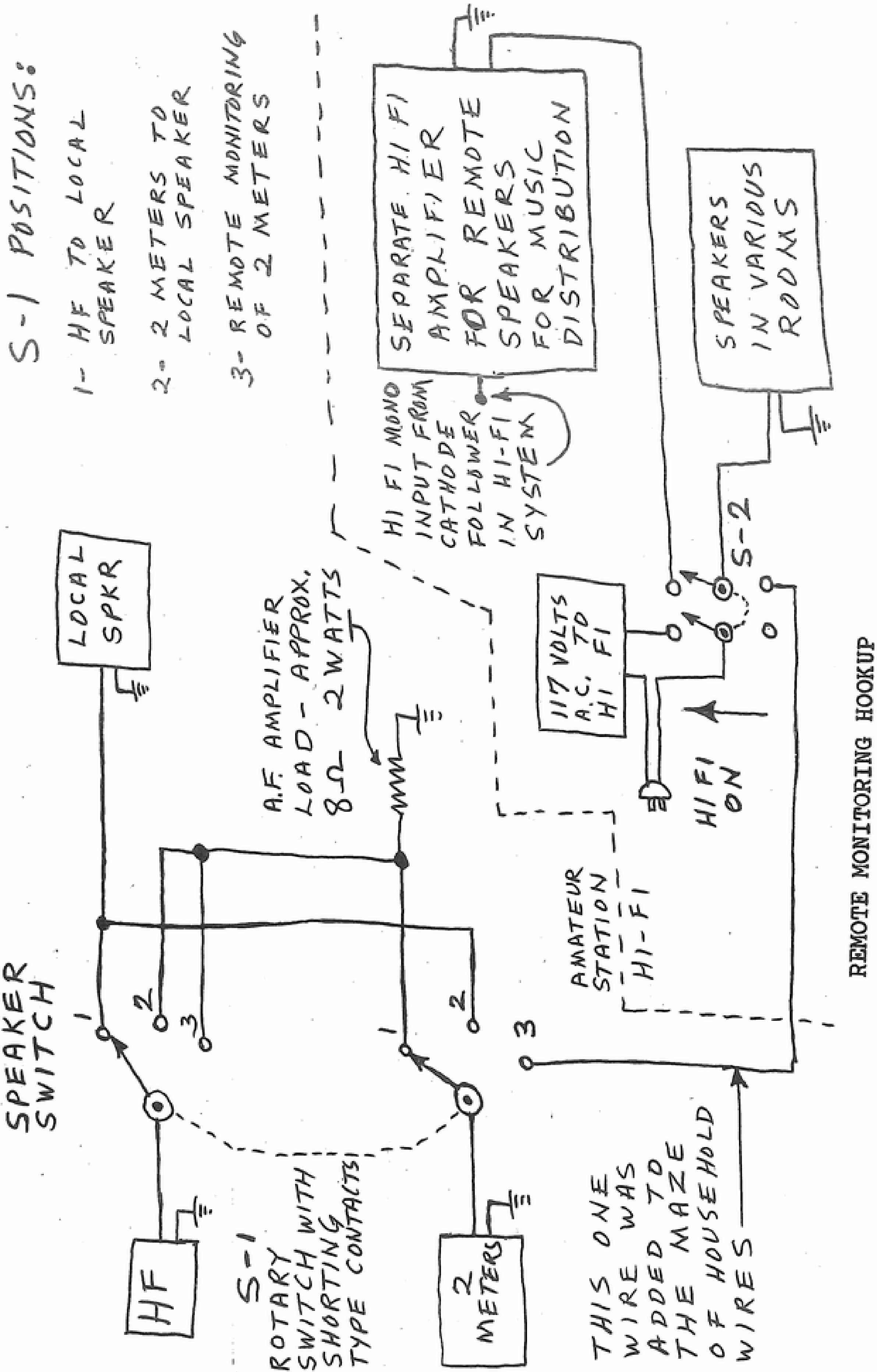
The remote speakers provide good coverage for remote monitoring with one in each main room.

Bill Rogers, WA5RAQ

# SPEAKER SWITCH

## S-1 POSITIONS:

- 1- HF TO LOCAL SPEAKER
- 2- 2 METERS TO LOCAL SPEAKER
- 3- REMOTE MONITORING OF 2 METERS





## TECHNICAL REVIEWS

W 5 J J



ELECTRONIC TECHNICIAN/DEALER, Aug, courtesy of W5KE, gives info on circular polarization and also some rather good even tho' simple info on SSB....but, the author should wise up to the fact that it's not necessary to use push-pull configurations in RF linear amplifiers!

AMATEUR RADIO, Jun, shows a method for switching crystals remotely, reviews the two Atlas transceivers, describes a RTTY demodulator, and presents several improvements for the FT-101.

ELECTRONIC COMPONENT NEWS, Aug, explores in depth the matter of circuit protection....a subject that may save you dollars in ICs!

SHORT WAVE MAGAZINE, Aug, has its usual excellent account of band activity (the best you'll see anywhere), describes International Crystal's kits for low-power transmitters, describes the results obtained from 540<sup>0</sup> (electrical length) antennas fed by open-wire 600-ohm line, reprints from commercial sources a diagram for an untuned VHF pre-amplifier, and shows a novel form of RF output indicator.

RADIO COMMUNICATION, Aug, tells in detail how to build a solid-state amplifier for 144 MHz, ditto for an "antenna splitter" for running more than one receiver from a single antenna, ditto for a multi-band linear amplifier of 300 watts output, shows several generators for UHF and SHF, and has its usual collection of "goodies" in Technical Topics.

73, Sep, has a wide variety to offer. They range from Fax to SSTV to several digital diddlings to antennas to voltage standards to antennas for 40-m DX to public relations for amateurs of radio. The last is the best! Well, maybe it's out-ranked by the series written by Wayne's father, which is darn good reading!

QST, Sep, presents the League's stand of license restructuring quite well. K6IJ tells about phasing Yagis for circular polarization. W7GHM introduces the subject of coherent CW with its 9-Hz bandwidth! The Micro-T0 keyer is updated by K3CUW.

HAM RADIO, Sep, touts inductive tuning for a kW VHF amplifier, describes a tunable RC notch filter, presents an informative explanation of why some (most) SSB xmtrs splatter like hexx, gives some ideas on fouling up the linearity of milliammeters, and shows the equivalent metric designations for common screw and wire sizes (very useful).

AMATEUR RADIO, Jul, contains an editorial on the justification for amateur radio which every amateur should read and retain in his memory! "The Trinity Antenna," by VK5XI sounds intriguing (selectable directivity on all bands from 10 to 80) but the feed system just doesn't ring true! VK3AFQ starts a series on amateur building blocks. Newcomers get a run-down on various antenna systems from VK3UG.

RADIO-ELECTRONICS, Oct, has nothing of even semi-interest.

IEEE SPECTRUM, Sep, tells about a new device, "a marriage of a transistor and IMPATT design," that'll put out appreciable RF power at 21 GHz without the need for frequency multiplication.

CQ, Sep, has many items of interest, including two on antennas. Tops, though, is the one on the early McCullough tube. Another concerns a scheme for working DX on 3.5 MHz.



THE RESONANT CIRCUIT  
W5JJ Answers Questions from WA5PPA

WA5PPA: In order to narrow the band width of a tuned circuit (Increase the Q), we can vary the inductance, or the capacitance, or the resistance of that circuit.

What are the relative merits of relying on each one of these components for sharpening an r-f tuned circuit? Which component is most frequently varied in tuning circuits in the amateur service?

Answer by W5JJ: This question requires a qualified answer. Let's talk inductance first. According to the formula given in Terman's "Radio Engineering",  $L = N^2 Fd$ , where N = number of turns, F = a constant depending upon the shape factor, d = diameter of coil. From this, it would appear that you'd gain in circuit unloaded Q by increasing L and making a compensating decrease in C to maintain resonance, considering that L varies with  $N^2$  and R directly with N.

Note that  $Q = \frac{2\pi fL}{R}$ . But, as stated by Terman, almost all C losses are due

to dielectric hysteresis which can be kept very small indeed in High Frequency circuits. In practical circuits, too, when we desire a broadly resonant impedance device we use an inductor with only incidental circuit capacitance.

Often we say "Keep R low for high Q." This, of course, is true only if we're speaking of R being in series with either the inductive or the capacitive leg of an LC mesh. If it's in parallel, the higher is R, the higher is Q.

Almost all amateur radio gear is tuned by a variable capacitor. The reason for this is more mechanical than electrical. It's quite difficult to construct a continuously-tunable variable inductor with low losses, especially with losses that decrease as L decreases. Tapped coils increase losses with a decrease in inductance. The variometer holds losses constant with changes in inductance. Complex devices that unwind turns from an insulated form on to a conductive form generally involve high capacitance to ground. Even ferrite slugs introduce some loss. So do tuning vanes.

If you remember the old TRF broadcast receivers, you'll recall that they were far less selective at the HF end than the LF end of their tuning range. In a resonant circuit the circulating current is the same in either leg. At the HF end that current encountered little loss in the C leg. In the L leg, however, skin effect (increased R), dielectric hysteresis, radiation losses, and induced currents in nearby lossy conductors all contributed to a higher equivalent R and thereby a lower Q as frequency went up.

So, within certain limitations, to have a sharp-tuned HF resonant circuit, keep series R low, keep C high, and keep L low. Use variable C for tuning.

In the present time we in amateur radio circles are not too much concerned with Q in the role of selectivity determination. Most modern receivers depend upon mechanical, ceramic, or crystal filters to perform that function. With few exceptions, like the Drake R4C, it's only in the tuned circuits at the very front end of a receiver that we depend upon LC circuits to provide a degree of selectivity, then only for rejection of "image frequencies," and to reduce front end overload.

"Loaded Q," a matter of special significance in RF power amplifiers, is a somewhat different matter. External factors, such as the dynamic resistance of the active element (tube, transistor, etc) and induced resistance (antenna loading, etc) are the primary ones for consideration. The actual ohmic loss in an inductor or various dissipative losses in the LC circuit are "swamped" by other Q-lowering factors.



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**HAM HOLIDAY CONTRIBUTORS.**

Gary McCormic, WA5ETV, submitted the following list of gentlemen that were the workers and contributors for all the prizes given away at this years Ham Holiday.

Jim Stansberry	US-Metric converters, from Oklahoma Military Dept.
Marvin Stokes	Soldering Iron-Keyyey's Electronics
Frank McCollom	Nicolosi's Dinners, 100lbs Ice-Liebmann Ice Co, dinners at Rib Roost Bar B Q.
Frank Arnold	10 Copies of Transistor Sub. Manual-Radio Shack
Jim Denman	Mosley Wave Trap Touch Tone Pad, Blitz Bug
Mr. Fritts	Three Subscriptions for World News
Perry MCWorter	Flashlight-Radio Supply
Bob May	Nail Pouches & Yardsticks- Caston Lumber Co.
Lester Roberts	Sword plaque, Am car radio & pins-Capitol Hill Auto salvage. Metal Ornaments from Holiday Ornamental iron. Plastic Cups and Holders/Costers- Keco Inc.
Frank McCollom	\$10 from Elmo Black
Marvin Stokes	Steak Knives, Power Handle screw drivers.
Dennis Orcutt Chairman	450 Mhz Antenna

Gary will have a nice article next month on a 450 MHZ Variactor tripler and a 450 MHZ to 2Meter receiver converter for less than \$30.

**SUGGESTION !** Seems we Editors have a hard time getting people to write articles for the papers, right! Here is an idea, why not give a reward for writting an article, for example, if a person writes at least a page or more give him credit on his club dues for one month, or maybe a Dinner or something. Think it Over.

**MID STATES REPEATOR CONVENTION.**

Frank McCollom wishes to express his thanks from the club to Bob May, WB5NIR, for representing the OCAP. Bob said that all the people asked to help went out of their way to do the job. Our hats off to these Men.

**NEW REPEATERS !** Bob, K5PJU, says that the 81/21 machine is ready and all it needs is some good weather. The auto patch will not be moved untill the new repeator has been burnt in, which will be severall weeks. The antenna and duplexer have been ordered for the 450MHZ machine. Next month lots on 450 and the 6 meter repeater that Dennis, WB5ISN is working on.





Have you ever had trouble getting action out of a company? Next time try something like this, It just might work! ! !

## ATTENTION HELP WANTED

WANTED: Competant personnel for high paying position with major electronics company.

POSITION: Many openings soon to be available.

MINIMUM QUALIFICATIONS: Ability to deal with the public in order to improve the present company image.

REASON FOR OPENING: Lack of qualified personnel in company.

LOCATION: Midland Electronics Company.

MEMO: The following is an excerpt from thirty minutes of phone calls from a customer (owner of new 13-500 bought June 20, 1975).

June 20 - Received Midland 13-500, with defective crystals.

June 20 - P.M. Called factory, Service Department and Parts Department, and was told replacements would be sent immediately and additional parts would be sent as soon as my check arrived.

June 30 - Nothing heard. Called again, curstomer service said they would look into it and call back. CALL NOT RETURNED.

July 1 - Called again and customer service said they had told the Parts Department, but would check again and have Parts call me back. CALL NOT RETURNED.

July 2 - Called collect, call not accepted. Customer Service did not know why call was not returned; Parts did not have my order or even remember talking to me before. Sue Dixon (Sales) said she would look into it and call back. Sue did call back, and told me that they could not find my order, but that she would have the warranty part shipped and the rest of my order as soon as I sent a new check and order.

July 3 - Didn't want to wait, made arrangements at bank to telegraph money to Kansas City. Called to arrange only to find that my letter and check had been mysteriously found and that they would ship order. Sue apologized for the delay.

July 5 - Order arrived Airmail Special Delivery.  
Wrong crystal sent for bad one.  
One of the new ones I paid for was faulty.  
The new service manual did not reflect changes in my unit.

July 7 - Found replacement crystal locally and bought it.  
Still don't have the other bad one but will find.

In conclusion, your company seems to make a well built, highly competitive product but if your dealers will not stock parts and if your customers cannot get them from the factory, then it is a toally worthless hunk of &c\*%#\$@&%&c\*+%#.

Enclosed are the faulty and incorrect crystals. Please sent me instead, 147.81 transmit and 147.21 receive in exchange, and a later scematic which shows resistor R 23 as a test point behind the crystal bank; it is not connected as shown in the four layouts I have. (Cont)



I have not received my phone bill yet but I am sure 5 calls to the factory won't be cheap and I don't want to make it 6. So if I don't get some affirmative action soon I will instead send copies of this fiasco to the advertising departments of all the HAM Radio magazines, and distribute it to all the 2 meter repeater clubs in the call book for their papers.

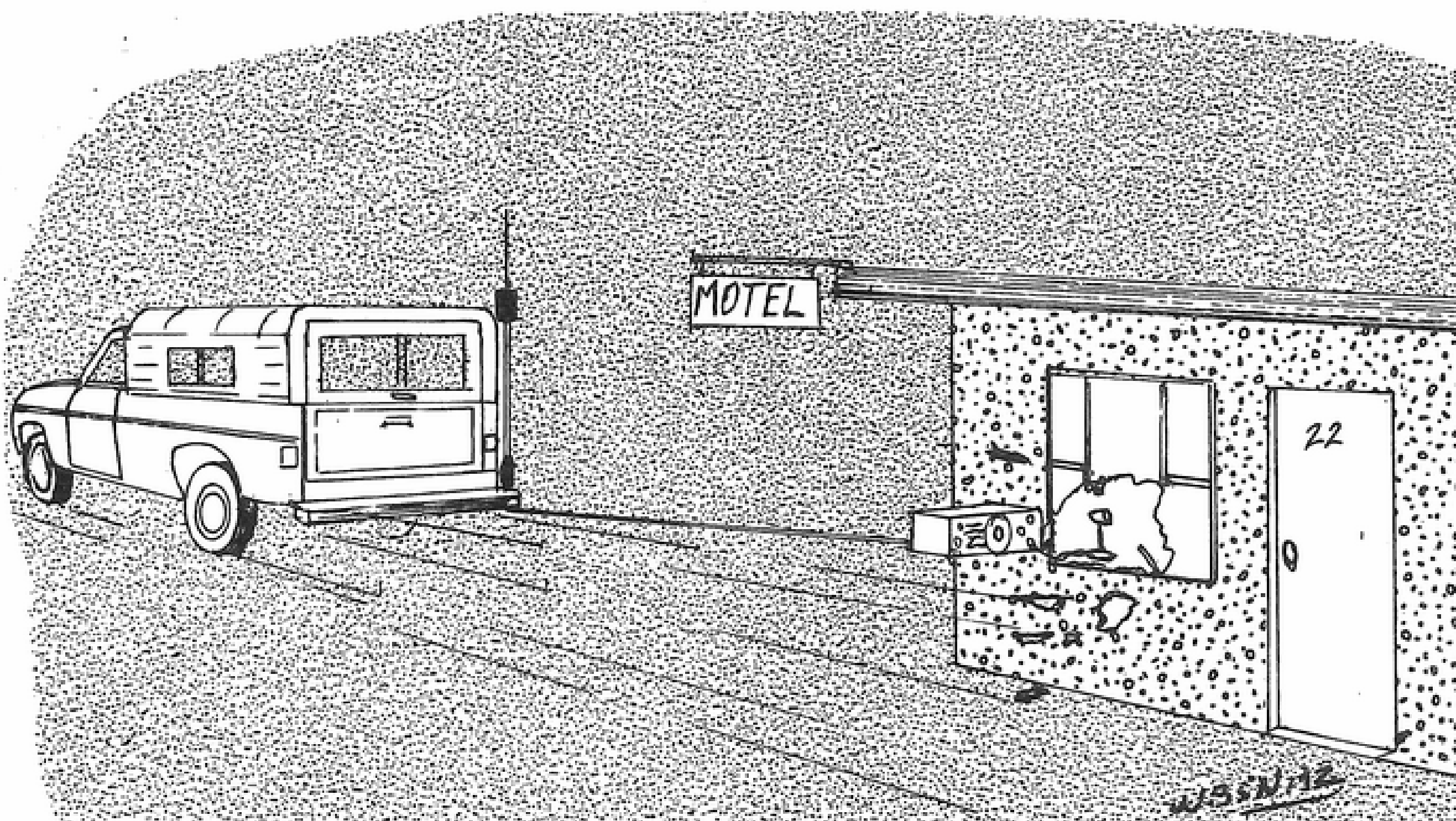
In otherwords, if you want to continue to sell your products, straighten out your personnel; your customers make a substantial investment and have the right to be treated accordingly, not ignored and given a runaround.

Regretfully, Your Customer,

Does it work? I sent a copy of this letter to the head of each department, and received three phone calls of appology, each trying to place the blame on the other department, on inventory time, and on lost letters and undelivered phone messages.

I was informed that I would be sent the crystals immediately and that they would throw in two extra for the troubles. One week later the two extras arrived, without the ones I had ordered, and without any, invoice or explanation of when the others would be sent, They never have arrived, and never will till I call them on the phone again, or send them a copy of the paper.

PS: They never sent me the R.S.V.P. plan they love to advertise. Well hope you have better luck with other companies. WB5NHZ



DEFINITION: PORTABLE - MOBLE: WHEN YOUR ROOM MATE FORGETS TO UNHOOK THE MOBILE RESONATOR FROM YOUR PORTABLE RIG IN THE ROOM.

## THE ZANY NEWS FREQUENCY

WHEN THE POST OFFICE SAYS IDENTICAL THEY MEAN IT. Your C and E was late last month because I figured that meant size but they say it means contents as well. We included a roster of ACARC members in the ones for members of that club and put them in the mail. Then I left town on an extended vacation trip to Canada. Ken, WB5ECJ didnt get his paper and contacted the PO. Then the sad story, so he and Charlie, WA5JGU, went down, removed therosters and remailed them so thanks to a real active CORA president who really cares you got it only a few days late.

ON THE TRIP TO CANADA and back down through New England, etc. I was able to work repeaters in 7 call areas, 8 including 5, with 07/67, 22/82, 34/94 and of course 52/52. Picked up a couple of amateurs on an Interstate (52) and traveled along with them. Wayne Green's article in the new '73 is about right, several times I would hit a repeater but they didn't want to talk to a stranger. Now that I know how it feels I'm going to answer every mobile with a "foreign" call even if I'm busy. A couple of times I wasn't too sure where I was but a call for assistance always brought a response. One guy in Boston had me wait for him until he could reach my location, 30 miles away, then found us a place to stay and showed us the sights. FB. Also worked a couple of Air Force MARS repeaters. Can't say as much for low band though. A bad coax connecter wrecked my try to koop a schedulebut I never found time to trace it down so just relied on 2 meters.

IT TAKES TWO TO TANGO. Not knowing how the traffic or speed limits enforcement would be, just before I left I "obtained" a CB rig to monitor the "Truckers Chanel (10)" and it really paid off. those guys really keep on top of the situation and if they pass the word that Smokey is at "83" taking pictures you can depend on just that being the case when you top that hill or come around that curve and with over 5000 miles to go that extra 10 MPH saved a lot of time for sightseeing. You don't have to join them, just monitor.

HAM HOLIDAY AND ARRL CONVENTION PICTURES appear in this issue, show them to non-affiliated amateurs and potential ones and show them what a good time can be had. We will probably use these in next years years brochure although some have suggested that we couldn't handle many more, but--the more the merrier. In that connection why don't YOU make the next CORA meeting (See Calendar) and get in on the fun.

HAVE NOT RECEIVED MY INVITATION to pre-register for Texoma Hamarama but I guess they will get around to it. I have a place to stay, now all I have to do is get a ticket. In any event, unless something unexpected comes up I'll see you there.

LICENSE CLASSES GOING GREAT GUNS. When I got back I heard that there were 130 or so enrolled and attending. Gear up, FCC.

Joe, WA5ZNF

OCTOBER HAM HAPPENINGS						
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			1	<u>FREE</u>	3 ACARC MEETING	4
5	6	7 MORI MEETING	8	LICENSE CLASSES - CODE THEORY - NOVICE - UPGRADE EVERY THURSDAY 7:30 PM OKLAHOMA MILITARY ACADEMY	10 CORA MEETING RED CROSS	11
12	13 COLUMBUS DAY	14	15		17 VHF CLUB	18
19	20 AUTO PATCH MEETING	21 EDIT C&E	22		24 25 HAMARAMA LAKE TEXOMA	
26 HAMARA	27 VETERANS DAY	28	29		31	

SEE PAGE 2 FOR CLUB MEETING TIMES AND PLACES

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