

Central Oklahoma Radio Amateurs

COLLECTOR

EMITTER

AND



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50¢

AN INFORMATIVE MAGAZINE  
PUBLISHED MONTHLY BY AND  
FOR OKLAHOMA RADIO  
AMATEURS

AND ANYONE INTERESTED IN  
LEARNING ABOUT IT

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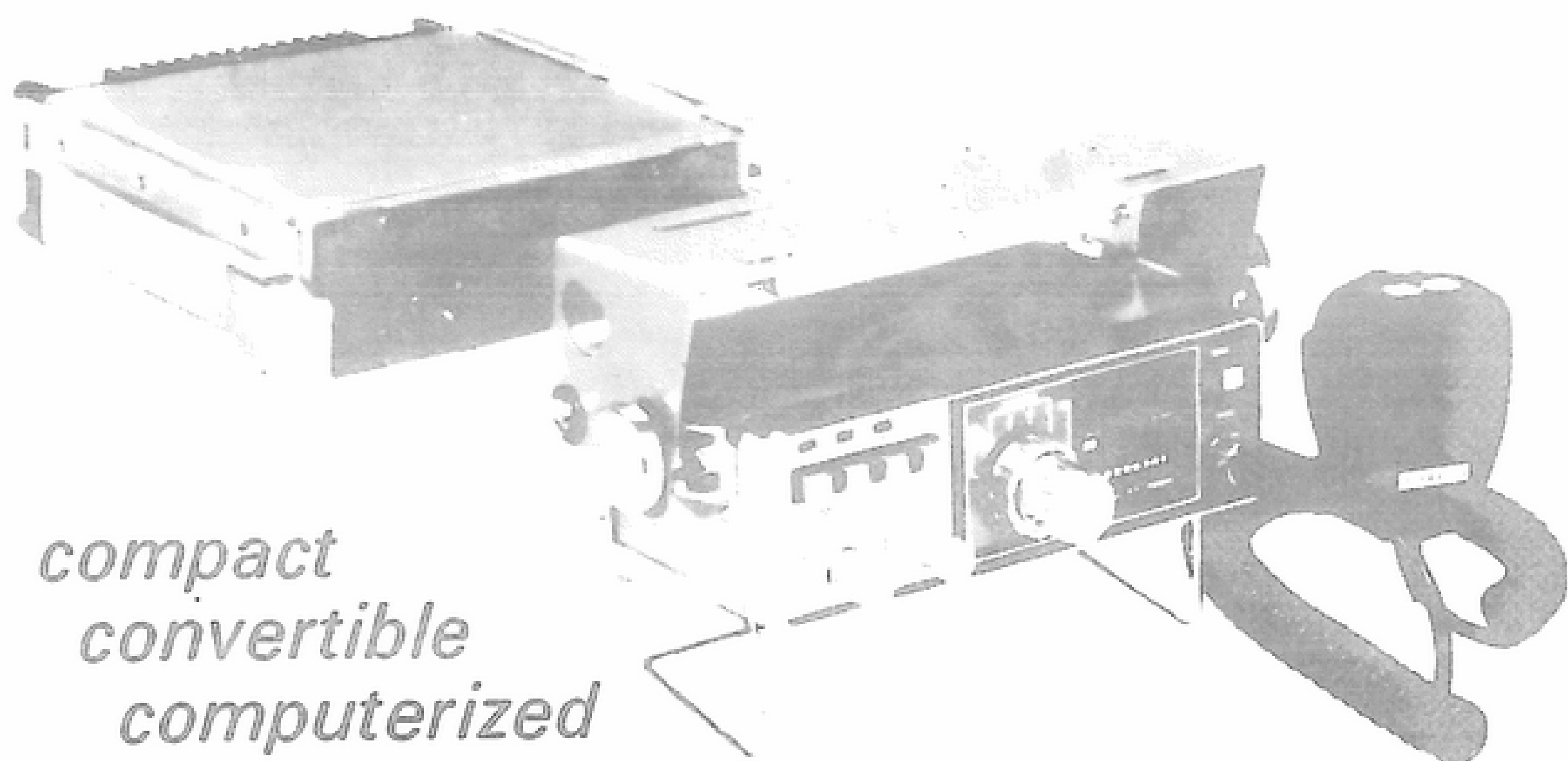


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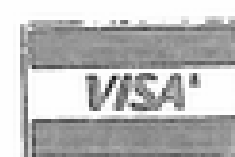
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# Central Oklahoma Radio Amateurs

## COLLECTOR AND EMITTER



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Central Oklahoma Radio Amateurs, Inc. (CORA) is a not-for profit association of radio amateurs, founded for the promotion of interest in amateur radio communication and experimentation, for the advancement of the radio art and of the public welfare and operates to enhance the cooperation of member clubs in sponsoring activities of mutual interest to the clubs and all radio amateurs.

President Chuck Wilhite K5NK 721-4926  
Vice President Bob Graham WB5NSV 677-8685  
Secretary Kay Northcutt WD5DYJ 842-1086  
Treasurer George Maschino K5GGL 263-7626

### CLUBS PARTICIPATING IN CORA

<b>1 AERONAUTICAL CENTER ARC</b> MEETS: 8:00 PM First Friday each month Flight Standards Bldg. FAA Aero Center Pr WASCJG Bob Pace 376-3569 VP VSKOR Bill Oliver 329-6333 Se W5NSV Bob Graham 677-8685 Tr W5AAY Larry Bugg 789-4180 Ed W5NSV Bob Graham 677-8685	<b>2 OKLAHOMA CENTRAL VHF CLUB</b> MEETS: 8:00 PM Third Friday each month American Red Cross, 10th & Hudson OKC Pr K5VRL Jim Williams 789-0769 VP K5YAO Clarence Sittel 947-4015 Se K5JB Joe Buswell 732-0676 Tr W5KE Ellard Foster 789-6702 Ed K5JB Joe Buswell 732-0676	<b>3 MID-OKLAHOMA REPEATER, Inc.</b> MEETS: 8:00 PM First Tuesday of month Okla City EOC, 4600 N Eastern Pr KASCXN Fred Taylor 528-1537 VP W5PH2 Bob White 681-2222 Se W5EQ Jim Buswell 236-0308 Tr K5PER Jim Jones 634-5295 Ed Dues: Sid Gerber, P29 House MNC 73110
<b>4 OKLA CITY AUTOPATCH ASSOCIATION</b> MEETS: 7:30 PM 3rd Tuesday of month Okla Military Academy, 36th & Grand Pr K5NK Chuck Wilhite 721-4926 VP N5IH Henry Isreal 722-3848 Se W5KET Clara Storm 496-6228 Tr W5QPI Zach Zachry 732-2888 Ed Henry Isreal	<b>5 OKLAHOMA UNIVERSITY ARC</b> MEETS: 8:00 PM (Sep-May) 2nd Tuesday Room 499, Carson Engineering Center Pr KASDHF James Gardner 321-8779 VP W5QLF Alan Wormser 325-2194 Se KASCO1 Peter Richeson 325-3015 DUES: K5SBF Nathan Kirby 364-7979 Ed K5SBF Nathan Kirby 364-7979	<b>6 ALTUS AREA AMATEUR RADIO ASSOC.</b> MEETS: 7:30 PM 2nd Thursday each month North Main Fire Station (CO) Altus Pr W5CBF Loren Simms 477-0921 VP S/T W5VXU Mike Schenk 482-1797 Ed W5VXU Mike Schenk 482-1797
<b>7 BICENTENIAL ARC (THE 76'ERS)</b> MEETS: 7:00 PM 2nd Tuesday each month Air National Guard, Will Rogers Apt. Pr W5BMP Joe Couch (Guthrie) 282-4353 VP WD5DYJ Kay Northcutt 842-1086 Se W5EQ Jim Buswell 236-0308 Tr K5FE Tom Cassidy 751-1194 Ed KASFE Susie Atkinson	<b>9 WHEATSTRAW AMATEUR RADIO CLUB</b> MEETS: 2:30 PM First Sunday of month Location Varies. See club section Pr W5JNT Ted Vanlangham 262-1675 VP AB5Z Ray Barnes 623-5421 S/T W5PFX Ralph Wilder Ed W5MTH Virginia Beneda 825-3302	<b>10 CHOCTAW AMATEUR RADIO CLUB</b> MEETS: 7:00 PM 2nd Monday. Choctaw City Hall. Pr AB5H Frank Carter 391-3394 VP W5EVP Bob Allen Se NSARV June Allen Tr KASALO R. G. Edwards 390-8297 Ed NSARV June Allen
<b>11 EDMOND AMATEUR RADIO SOCIETY</b> MEETS: 2:00 PM 3rd Sunday, Room 205 Science Bldg. Central State Univ. Pr W5SHX Ken Stepp VP K5SRR Clarence Dollmeyer S/T W5ERY Allen Watson Ad W5FHR Dee Mize Ed K5SRR Clarence Dollmeyer	<b>12 SHANNEE AMATEUR RADIO CLUB</b> MEETS: 8:00 PM 2nd & 4th Tuesday Shawnee City Hall - EOC Pr W5OHL John Owens 273-0848 VP W5FUG Les Stewart 567-3895 S/T W5TQZ Bill Warren 275-0119 Ed W5BUQ Jay Tingler 273-3033	<b>13 KAY COUNTY AMATEUR RADIO CLUB</b> MEETS: 7:30 PM 3rd Thursday of month Security Bank Basement, Ponca City Pr W5NBK Steve Scott 765-7408 VP W5SAG Grady Skillern 765-3411 S/T Cosby Clarke 765-3105 Ed Steve Scott
<b>14 AMATEUR TV EXPERIMENTAL SOCIETY</b> MEETS: 7:30 PM 2nd Thursday each month Central State Univ. Edmond Pr W5JGC James Buchanan 495-2777 VP WASHTL Paul Asplin (Bus) 521-2861 S/T NSANG Mike Woods 528-3699 Ed W5JGC James Buchanan 495-2777	<b>15 SOUTH CANADIAN AMATEUR RADIO SOCIETY</b> MEETS: 9:30 AM 3rd Saturday each month Red Cross Bldg. North Campus Norman Pr K5ODK Laverne Hoag 329-7625 VP N5ABC John Stehr 364-8761 Se KASFBG Linda Brandt 321-5081 Ed W5TZZ Jack Bickham 329-1311	<b>16 EDMOND AMATEUR RADIO CLUB</b> MEETS: 7:45 PM First Monday of month General Electric, 3228 N Santa Fe OKC Pr K5GBF Harold Plunk VP W5BQX Bob Shaw S/T W5UIY Stan Van Nort Ed W5UIY Stan Van Nort
<b>17 TRI-CITY AMATEUR RADIO CLUB</b> MEETS: 7:30 PM First Monday of month. Location varies, see club section. Pr W5TFX Ben Gard 379-3112 VP W5VPH Carl Cash 257-2243 S/T KASFD Nancy Hayden 379-6448 Ed KASFD Nancy Hayden 379-6448	<b>18 GREAT PLAINS AMATEUR RADIO CLUB</b> MEETS: 7:30 PM 1st Tuesday each month Woodward Court House basement. Pr W5OVT Rod Ford VP W5DFH Bill Reid Se W5DFG Donna Reid Tr KASFKV Gerald Bowman Ed W4ZSL Wes Duer	<b>19 SOUTHEAST OKLA AMATEUR RADIO ASSN.</b> Pr W5TTV Ron Henson 326-5418 VP W5SUL George Weldon 326-5672 S/T W5FUE Orville Kaley 326-3640



Red Cross. The Good Neighbor.

# MORI CHRISTMAS PARTY

## FURR'S 63rd & MacArthur Bvd

### Y'ALL COME 2 DEC 80

#### THE PRESIDENTS CORNER (AGAIN?)

Well, ahem--The railroad ran again--I accepted the nominating committee report from WB5PWZ Bob and Clarence, K5YAQ (which had two blanks for President and Treasurer). They screen a long, long list. Guess they heard a similar story from everyone contacted as I heard. That we had their support, but as a officer? NO! was the response. I'm very encouraged by the clubs choices for officers for the coming year.... All of them know and practice the strongest ideal recommended for club members: "Cooperation" and I quote from Webster "To act or work together with another or others for a common purpose" or "Association of a number of people in an enterprise for a mutual benefits". The following officers typify the quote perfectly!!!!

Vice President Frank Arnold W5PDH has earned the confidence of all MORI members that know him and deserves the recognition conferred upon him. He is a happy and competent guy.

Treasurer Sid Gerber W5KOZ has been performing efficiently as the Membership Secretary for number of years. He always has a word of cheer or good words for everybody. With this election the post of Treasurer is combined with Membership Secretary.

Secretary Susie Atkinson KA5FED. Those who know Susie love her. Her exuberant love of life is infectious. She will be an excellent secretary as well as corresponding secretary.

Please give this excellent slate of officers the cooperation that will maintain the high standards of MORI as in the past.

I thank the club for its confidence in me and will certainly justify your trust in continuing our progressive programs as in the past year... With your help of course. I'm green with envy at the electronic knowledge most of you possess and hopefully will hear from those of you who have a program that will be good for one of our meetings. Please let us know so we can schedule for next year.

\* Sure enjoyed the last meeting when we heard Dr. Joe Hock. Thanks to Frank W5PDH for arranging the program and the fine introduction. Joe patted us on the back for our relaxed format and the bottomless coffeepot.

\* Proud of N5AWE, Earl upgrading to Advanced Class. Couldn't happen to a nicer guy.

\* Enjoyed meeting all the new members. Let's all bring a friend. The clubs growth will make it possible to maintain our influence in the community and .... certainly will help us to upgrade our equipment.

\* Let your enthusiasm show about MORI... and ask "Have you joined yet???"

\* Talked with N5AKL, who lives close enough to the repeater (07-67) to throw a stone and hit it. He's considering a vertical quad... Might have a superior rejection ratio...

\* Golly, everyone is getting a ICOM 2AT handie, and Joe KBJB has figured out a microphone for it. See his column...

\* Sure do thank the MORI members who showed up without urging to help CORA fairgrounds surveillance project...

\* Thanks K5NK Chuck for the hilarious raffles we have been having, the prizes haven't been expensive but appreciated by all the lucky ones. The kids he chooses steals the show.

\* QST QST, WE WOULD LIKE TO ANNOUNCE THE MORI CHRISTMAS PARTY... WE WILL MEET DECEMBER 2 TUESDAY AT THE FURR'S CAFETERIA (WE WILL GO FURR FOR A HILARIOUS TIME..) THE COMMITTEE COMPOSED OF BOB, WB5PWZ, OUR VP AND HIS TWO VOLUNTEERS. HOPE EVERYONE CAN MAKE IT, AND BE SURE TO BRING YOUR WIFE AND KIDS... IF YOU HAVE ANY IDEAS FOR A PROGRAM, LET BOB KNOW -- YOU CAN CALL HIM ON THE REPEATER...

FRED, KA5CXW



MORI

## MORI MINUTES

The October meeting was called to order at 8:05 pm on the 7th by Prez Fred KA5CXW at the EOC with 53 members and guests present. Membership now totals 322.

Minutes of the September meeting were approved as published in the October Collector and Emitter (C&E).

The Treasurer's report was approved as read by Jim K5PER.

Announcements: Fred reported results of the State Fair Parking-Lot security project;

CORA representatives reported on the September meeting and elections: Prez K5NK, V-P WB5NSV, Sec. WD5DYJ, Treasurer K5GGL;

License Classes will be held thru 17 Dec Wednesdays at 7 pm at the Red Cross center downtown OKC.

Elections: consumed the balance of the business meeting:

President Fred Taylor KA5CXW

Vice-President Frank Arnold W5PDH

Secretary Susie Atkinson KA5FED

Treasurer Sid Gerber W5KOZ

CONGRATULATIONS! also to upgrades: Bruce WD5GVJ, Advanced, Connie KA5EMZ Technician.

The business meeting adjourned for refreshments at 8:37 pm.

The club reconvened informally for the program on "STRESS" by Dr. Joe Hock, consultant to Amcare, among others, on how to handle "DISTRESS." We were reminded to remember that all decisions we make come from Opinions, Facts or Feelings. Joe's presentation was intriguing and well--received.

Following Q&A about the C&E membership filing now required by the USPS, door prizes were won by the following, ably drawn by Chad Clement:

Sid WA5TAR

CY WB5TKG

John K5QDR

Jim K5VRL who donated it to Chad

Max KA5IDQ, new General, today.

Charlie WA5JGU

Frank W5PDH

Odie WA5UTR

Don WD5HPR

George N5BWW

Ken K5VVZ

The group dispersed for the aftermeeting at 10:10 pm.

Next meeting will be same time and place, 4November80, CU there.

Jim N5BEQ  
Secretary

Still for sale: regulated 2 ampere powersupply @ 12 volts from 115, \$30.00; Drake TR-22 full, \$100.00; sundry XTALS, ask. jim n5beq

FOR Sale: 6 Amp, 13.5 V regulated power supply, \$30.00, Dick WB5TMW

For Sale: Heathkit 2036A with LED digital mod and DF-RF attenuator, Bill KB5BS.

For Sale: Wilson MkII handheld, 6-channel, local, \$175, Charlie WA4PLG

For Sale: Yaesu CPU 2500R, \$350.00; FT 207R, \$300.00, Jim N5CJA

Also still for sale, 10-watt 2m. amp Heathkit HA-201, \$30.00, jim n5beq

AGE SAGE: HOW TO KNOW WHEN YOU'RE GROWING OLDER or IS THERE REALLY LIFE AFTER 40? : THE BEST PART OF YOUR DAY IS OVER WHEN YOUR ALARM GOES OFF!.

jim n5beq

Thanks for the nice piece on the Norman Snail service last month. My copy arrived on the 8th as usual. Maybe we need to replace the postmaster with a pigeon keeper. Well, I can always get a P.O. Box in Moore, they seem to get to the goodies first. Well at least it makes me enjoy those new commercials on the pony express service.

WB5NHZ

# EDMOND AMATEUR

## RADIO SOCIETY

147.72/147.12

Here we go again -- back from vacation and all rested ready for another year at the salt mine -- HAH! Back, yes -- but rested? Hardly!

First, many thanks and several bouquets for Don, WD5DGC for taking on the C & E editorial duties. How would you like to have the job permanently Don?

Now on to a report of the September meeting.

Our president, Ken, reported:

- ★ a) Our membership has doubled in one calendar year (Congrats Ken);
- ★ b) We have received a letter of appreciation from the Lake Arcadia Association thanking us for providing communications at the groundbreaking ceremonies;
- ★ c) Displayed an Award of Merit plaque presented to the club by the Honorable Carl Reheman, Mayor of the City of Edmond for our support of Edmond Civil Defense.
- ★ d) Club provided back-up communications for the CSU Homecoming Parade.

Dave Deirker, WB5RLR, managed to fill several slots on the State Fair parking lot surveillance duty roster (a CORA project). It appears that EARS will provide at least 8 man-shifts -- not bad for a small club.

★ We have another new member:  
Bill Teasely

A non-Ham

Hope we can rectify that soon.

Our Secretary, Allen Watson, W5ERY, announced that CSU has made a storage room in the Science Building available to EARS for club equipment and has granted permission for an antenna installation on the roof. Anyone interested in a club station project? Bill Wright, WA5ZLW has offered a 19" rack for equipment.

Our trusty repeater trustee advised that we had two items of expense for the 72/12 machine this past month.

- |    |   |    |
|----|---|----|
| \$ | a) New finals for the transmitter @ \$43.68 | \$ |
| \$ | b) New receive antenna @ \$100.00           | \$ |

We were at 400 ft. with the receive antenna but as of the meeting we were back to 230 temporarily. We will be back up to 400 ft. shortly and will be sharing with the 10/70 RTTY machine.

Bob McCoy, N5BUJ, recommended that we try to make formal arrangements with the folks on 63/03 to switch to that frequency for Civil Defense purposes, etc., when our machine happens to go down. Martin Vinson indicated he would discuss the matter with the 63/03 trustee.



★ Have you noticed that we now have two members of the fairer sex on our roster? They are Mary Lester, N5BCG, and Mary Lou Mankin, KB5TH. Let's make the effort to get acquainted and make sure they feel welcome.

---

Don, WD5DGC, proposed that EARS provide "family memberships plan" and was promptly appointed to research the approach taken by other clubs in this matter. Don has a good point -- it is especially dear to his heart because he is about to have three new hams in the family.

And, last but not least, we had a drawing for door prize goodies. Ben, K5IRO's ticket was drawn but he was not present so the new ARRL Operating Handbook went to Ken, WD5HXX instead. Four more names were drawn for a copy of "73 Antenna Book", Mary, N5BCG; Oscar, WB5GCX; Charles, K0AYS; and Al, WA5G0I. The book finally went to Dave, WB5RLR. ---- Enough of that.

---

Edmond's much publicized auto accident involving a gas well (17 September) turns out to have been something more serious. Our trustee received a call from the fire department dispatcher requesting emergency communications near the site of the event. A command post was set up near the site and for the next 12 hours 72/12 machine was the primary communication link for the mayor and the civil defense officials. We were the only organization which could provide direct service via ma bell's land lines. All other services were forced to relay through dispatchers with a resultant loss of time and potential loss of message content. The direct communication became quite important when it was discovered that the car appeared to have been rigged to crash into the well; and during the times when it was necessary to contact Tinker Field to summon a crash truck; and to deal with the FAA and TV station managers to keep the choppers out of the escaping gas stream. It was a near perfect opportunity for ham radio to show its mettle -- and the system (people and machinery) worked quite well. Of course, we burned up the transmitter, but it worked when we needed it. WELL DONE GANG!!!!

---

★ Well, let's see -- what's new around town? ★ ★ ★ ★ ★

☞ The repeater seems relatively quiet lately so news and gossip is hard to come by. A review of our roster shows 16 members who have managed to keep their names out of this scandal sheet except for publication of new memberships. However, here are a few items.

☞ J.D. Keeling, WA5ZGN, has his talkie back in operation. Says he doesn't know what did it. He just started digging and suddenly it came to life. Some of us wish we could dig like that, J.D.



★ Well, we did it again. Another letter from his honor the mayor -- this time commending us for our service to the community during the auto/gas well incident. Thanks Mayor Reheman. We appreciate your kind words.

---

☞ Ken, WD5HXX, finally came up with a way to fit his tri-band beam to an iron pipe size mast and conned some of his tower climbing type friends (Dee and Howard) into putting it up on a Saturday morning. It must have been quite a party for I understand they had the misfortune to break an element in the attempt to get the assembled antenna in place. Had to lower the thing to the ground, repair the element and then start all over again. Ken reports he is showing S-9's now on JA's whereas he could hardly hear them before. That's great Ken.

☞ Repeater inter-mod has been something of a problem over the past several weeks but Martin and company have been hard after it. A notch filter was tried but didn't quite cut the mustard. So now we have a cavity on the transmitter antenna and things appear to be much better. We still have occasional odd sounds and triggering of the repeater but it isn't interrupting communications as it once was.

☞ EARS members turned out enmass for the Marsfest on 28 September. We were tempted to declare a quorum and conduct a rump session but decided that 6 members wasn't quite enough. Dee, WD5FHR, came home with a signal generator which proved to be operable after a \$16.00 transfusion of new tubes; and, Bob Janda latched onto an audio class scope and a VTVM which still aren't working as of the last we heard. Everybody came back with something to increase the floor loading in the shack but I don't have an inventory of the loot.

☞ What well known very chicken type ("I don't climb towers") ham climbed his tower to 20 or 30 feet the other day? We understand he looked around and decided it wasn't so bad after all. Hang in there, K--; they tell me the next 10 or 15 feet are a snap.

Thats all folks! 73 SK EARS DE KB5RR CL

NEW REPEATERS FROM ORSI Repeater listing 7-24-80

4.83-5.43	Okla City	WA5CZN
6.625-6.025	Norman	WA5RPP
146.40-147.00	Clayton	?
7.72-7.12	Guymon	WD5EII
7.72-7.12	Mooreland	KA5CJG
7.78-7.18	Seiling	KA5CJG
7.90-7.30	Alva	WD5GJN

## FCC BENT OUT OF SHAPE DEPARTMENT--RADAR DIVISION

First the Air Force comes out with a cloaking device for airplanes that let s them fly with 25 miles of the Russian radar and now the FCC is worried about people using radar detectors and "jammers" along the highway. The story is told with the text from the following "unofficial" announcement released July 7, 1980:

### FCC REGULATES POLICE RADAR TRANSMITTERS: WARNS AGAINST RADAR JAMMERS

The FCC has received many inquiries about regulations governing police radar, radar detectors, and other electronic devices used on the highways. This release explains the scope of FCC jurisdiction over the use of these devices.

Traffic radars used by police to enforce highway speed limits are transmitters. As such, they are type-accepted and licensed by the FCC under Parts 2 and 90 of its rules, which spell out licensing eligibility, permissible communications, available frequencies, and special operating requirements or limitations. But the FCC does not regulate the method of radar enforcement used by police to identify speeding vehicles.

Officially, the FCC is more concerned about the potential of radar transmitters for causing radio interference than about their performance in measuring vehicle speeds. The Department of Transportation's National Highway Traffic Safety Administration (NHTSA) is the federal regulatory agency concerned with enforcement of highway speed limits and with the effectiveness of police radars as enforcement tools.

Both the FCC and NHTSA are concerned with the growing use by motorists of electronic devices designed to thwart police radar enforcement. Among these devices are radar detectors, police band scanners and radar "jammers."

Radar detectors are radio receivers tuned to receive police radar signals and to warn motorists of radar "traps" ahead of them. Scanners are receivers that can pick up police radio messages to warn motorists of the locations of patrol cars. The FCC doesn't regulate receivers (editors note, yet) so the use of radar detectors or scanners is not in itself a violation of FCC rules or or any federal law. However, several states have laws that specifically prohibit the use of radar detectors or other devices designed to evade local traffic laws. In addition, NHTSA supports efforts by law enforcement agencies to oppose the manufacture, sale, possession, and use of radar detectors.

Radar "jammers," on the other hand, are definitely prohibited by the FCC. "Jammers" are devices that emit a radio signal tuned to interfere with, or "jam" a police radar signal. They are clearly unauthorized transmitters and their use would violate FCC rules and the Communications Act of 1934, as amended. Anyone using a "jammer" risks such penalties as revocation of any FCC licenses, payment of a fine, or even criminal prosecution.

In summary, the FCC regulates all transmitters but has limited jurisdiction over receivers. Regulation in all radio services is guided, however, by a policy favoring the authorized use of radio--including police radar--to promote highway safety. Under that policy, the FCC discourages any use of radio that might endanger highway safety.

For more information about FCC regulation of radar and related electronic devices, call the Private Radio Bureau, Education Branch, (202) 632-7125.

Leaping Lizards, Sandy. I'll run and get my decoder ring and then we'll have Engineer Scott beam us up to the Enterprise. What is the FCC doing by being "concerned with the growing use by motorists of electronic devices designed to thwart police radar enforcement." Why, folks, its just one more battle in the minature electronic countermeasures cat and mouse game between the "haves" (thems that got radar) and the "haves" (thems that got radar transmitters). So radar receivers, yes, but radar transmitter, no.

Ever since police decided that they could support various local charities by the simple expedient of purchasing an X band doppler transceiver (that's radar to you), there have been constant effort by the citizen who strikes back by the purchase of a radar receiver in an attempt to keep a little change in his pocket. But now the war has escalated to active transmitting devices apparently designed to "fool" the police radar into reading erroneous values.

A radar set is nothing more than a simple receiver that mixes the outgoing signal with the returning echo to produce a difference signal somewhere in the audio range. The mixing is produced in a nonlinear device. If an amplitude modulated signal (transmitted by your handy dandy radar transmitter) should happen along the same space where the local hypo radar is sitting, the nonlinear device in the receiver sees that amplitude modulated signal and detects it just like a normal crystal receiver and passes the audio along to signal processing devices. Zonko, radar set moves the speed from 70 (or maybe 55) to 50 mph.

I expect that we will soon move to phasors as the next battleground for police versus motorists. Two to beam up, Commander Scott.

Micheal Salem N5MS

## RIGHT TO LISTEN ?? SON OF SECTION 605

Those wonderful people who gave us the Bearcat scanners know what its all about. People have a natural curiosity about what happens or is said on the airways. And now that microwaves have been "discovered" everybody finds some fascination with MDS downconverters and satellite television receive only terminals. Yet, Marshall McLuhan was wrong, in this instance the medium is not the message. People would not put up \$4,000.00 (a minimum investment) to construct a satellite receiver nor would the brisk market for MDS downconverters persist at Dayton and the Dallas Fleamarket if the satellites broadcast analog data or if the local MDS operator ran old Laurel and Hardy movies instead of warmed over first run movies. The market was created by the interest. I see that Channel 43 is getting ready to come on line, but I am not sure after looking at their movie schedule that they will offer anything that hasn't been seen on HBO already.

All of this activity, legal or quasi-legal, has not gone unnoticed. And just like Newton's Third Law of Motion, "For every action, there is an opposite but equal reaction." Congress rears its mighty head in the form of a new bill introduced by Representative Richardson Preyer, D-SC that would make it illegal to intercept certain kinds of pay programming without authorization. The bill to this point does not include subscription TV broadcasts nor decoders. There is some expectation that the measure will be amended to include interception of subscription TV signals when it comes to the floor for a vote. I have not had the opportunity to examine the bill or amendments, but the papers have touted the bill as a "right to receive" bill which may have additional prohibitions against the reception of regular radio signals. Interestingly enough, this legislation follows recent court decisions in Los Angeles and Detroit that Pay TV people do not have a monopoly for the interception and decoding of their signals. In Los Angeles, the case involved a group of electronic entrepreneurs who were selling decoders that unscramble the pay TV signals for home television receivers. The manufacturers were hauled into court by the local Pay TV station and charged with violation of Section 605 of the Communications Act which (as has been previously noted in these pages) is the so-called "secrecy" provision. Federal Judge Lawrence Lydic ruled that no law had been broken since the Act did not allow the FCC to grant a Pay-TV station the monopoly rights to the decoding of its signal when it licenses the station to transmit. A similar result was reached in Detroit in an identical case.

Interestingly enough, a recent editorial in the September 13 issue of Electronic Design (a highly respected industry journal) questions the propriety of Representative Preyer's bill (Bill No. HR-7747). They viewed it as another invasion of individual rights and points out that the technology is available to prevent interception and protect Pay TV transmissions. "Secure locks, after all, and not fear of the law, keep the brigands out."

## NETWORK BATTLE OF THE SYNTHESIZED WALKIE TALKIES

There comes into ones life various crisis which one must resolve or die. For example, the availability of a new piece of radio equipment. One must always come to an understanding between himself and his pocketbook to weigh the "I can't live without it factor" against the "What will I eat dinner on?" My solution is to generally avoid the near occasion of sin by merely ignoring the new equipment. That's why I rarely view the commercial exhibits at Dayton preferring to spend more time in the flea market. When I do see a piece of equipment that I would consider, I give it an occasional glance and sniff and move onward. By the time I find out how neat the thing really was, I have the courage and self confidence to ignore. I can now resist the temptation of an IC 720. I really can. Nothing too it. I think.

Well, the other day before the Kentucky football game, WB5FZD stopped by my house to claim his parking space (you never know who your real friends really are until you have lived within two blocks of the football stadium. Big John didn't want to carry his new sooper dooper synthesized pooper radio, so asked if he could leave it in the house during the game. I said sure and just throw it on the pile. He left it on the stereo and I didn't see it again until about 45 minutes after the game. John had already come and gone and I was the only one in the house. Well, I really wasn't paying much attention and didn't actually see the radio until three days later. I thought that John might have accidentally left it on, but he had not. I dialed in a couple of frequencies and kerchunked. Nothing. Ah ha, a extra switch for the offset. Well, now the battery was just start to go down. I rigged up a suitable charger to zonk up the battery. I checked the charging plug and found that it was wired backwards from the norm. Fortunately my charger was very universal so I had no problem with the opposite polarity.

After a charging, I quickly reviewed the operating instructions (printed on the back of the radio) so that I could check the radio out and make sure everything was fine. I fiddled with a couple of frequencies and ran some signal sensitivity tests. They are pretty good. This was the time that John had begun to miss his radio. I toted it to work the next day and it felt fine, albiet a little heavy. I left the radio on and found that 10 channels of scanning were nothing but commotion. The scan feature of John's Kenwood wasn't always that useful when some of the channels were incredibly crowded. I would suggest that Kenwood do something that will allow you to drop a busy channel if you need to.

The continued exposure to FZD's Kenwood TR-2400 had a very negative effect on me. I was beginning to fall in love with a radio I knew I did not need and should not spend the money on. I think that I broke out in a rash, tossed and turn for a few nights (especially after I gave John back his radio. He cornered me in an alley after chasing me for two blocks. I pretended that I didn't hear him at first. Drats!) and finally did what every red blooded amateur suffering from radious deprivus does. I reached for the phone for fast relief. I called Bill at Brodie Electronics and he (clever dealer that he is) invited me up to sample the stock. It also occurred to me that you, gentle reader, might be interested in some general impressions from me and the owners of various synthesized walkie talkies in town. So this is when the network battle of the synthesized walkie talkies really began. Bill let me take a Kenwood TR-2400, Yaesu FT-207R, and a Tempo S-5 for a couple of days of fun and games. I was relatively certain when I left his house that I would ultimately spring for the Kenwood, but I actually switched my mind at least 20 times over the next couple of days.

First, some general impressions about the radios. I started out with a single frequency HT-220 slimline about 10 years ago. I had a ton of difficulty



when I converted the radio to a 12 frequency transmit and 8 frequency receive behemoth. This is when I first met Merle W5HXD, the patron saint of Motorola HT's. This man truly taught me the meaning of patience as he carefully converted my radio to a mass of wires and crystal decks. Why did I do this? Well, its not difficult to run out of frequencies when you only have one. VHF activity was on the upswing and OKC was blessed with four repeaters at that time. I could see obsolescence on the horizon if I added only one frequency to the one already in the radio. 12 frequencies was nirvana for those times and I felt that the small fortune that I would invest in International Crystals would more than be offset by the prestige of carrying such a dandy radio.

The ultimate went one step further when Dale Heatherington WA4DSY came out with his synthesized HT-220 (After all if you were going to synthesize anything, why not a motorola?) I thought that I had to have one of these and I very carefully considered all the angles. Current drain was high, 42 mils as compared to 4 mils for the plain vanilla HT. I resisted and stuck with the 12 frequer. Strangely enough, I did ultimately acquire a synthesizer for an HT from Larry WB5DUC who went bonkers over these devices and built a beautiful board. I need to get around to negotiating with Larry for the board. I'd like to play with it somemore.

Finally, the much ballyhooed appearance of the Yaesu FT-207R became a reality. The advertisements ran in the magazines for weeks, nay, months before the radios ever became available in this country. The first one I ever saw was chained to a guy's belt at the Dayton Hamvention. He worked for Yaesu and brought the radio over from Japan especially for the Hamvention. This was contemporaneous with the appearance of the Tempo synthesized goodies, also. I resisted this pretty well, since I was pushing about \$175 in investment for HT-220 crystals. However, within the next year, three more repeaters had sprang up in the OKC environs. Rats, I was finally outclassed.

Back to that fateful saturday morning. My tests started out very simple. I carried each of the radios for a day after a full nights charge. Then I pulled out the measuring equipment and conducted some quickie measurements. I broke down my comparisons into several categories as follows:

#### SIZE AND CONTROLS

The Kenwood is the largest of the three and it can be quite a handful. Everything that controls the radio is accessed from the top with the logical exception of the touchtone pad. The Kenwood has a microprocessor to control all the various functions. This is also true of the Yaesu. I would guess that this adds something to the size since the Tempo was the smallest of the group and it had no scanning functions. It also seemed the lightest and could easily fit into a suit coat pocket with the rubber duckie antenna or collapsible antenna. Incidentally, the Tempo was the only radio you could equip with a collapsible type antenna. The others were designed for the helically wound antennas only. The Yaesu was shorter than the Kenwood, but also thicker. I still felt that it was very comfortable to hold and you only needed medium size fingers to work the knobs. The high low power switch and the battery charger were all on the bottom. This could be very inconvenient when trying to charge the radio and listen at the same time (I don't believe that Yahoo recommends this. I wasn't particularly fond of the controls on the S-5, but they were functional. It seems to me that you could accumulate dirt and dust down the holes plus you don't have full control over the knobs in one movement. Rather, it required several small movements to turn the volume control all the way up or down. This is ditto on the thumbwheel switches for the S-5. Mechanically, they are a nightmare when compared to the keyboard entry of the Kenwood and Yaesu. However, they are also convenient when trying to change frequencies while the

radio is in your coat pocket. Can't do that with a Kenwood, much less get it into your coat pocket. The Yaesu had a belt clip and it is quite substantial. I have seen several people fashion belt clips for the Kenwood and the Tempo. The Tempo looks best with the clip. Kenwood provides you with a lanyard, but don't swing the radio from it unless you want to take a chance. The Keyboards on the Kenwood and Yaesu are both nice looking, but I have heard of several locals here in town who have experienced trouble with the keyboard necessitating a trip to the factory. Both keyboards are easy to operate and are spaced well enough for a fudge fingers like myself.

BIRDIES

I remember the early days of synthesized radios and the WA4DSY HT-220 synthesizer. You would have thought that a canary convention was in session. All of the radios were remarkably free of birdies. I couldn't believe it. The Yaesu had no birdies at all throughout its range. The S-5 had birdies at

144.08 Mhz., 144.09 Mhz. (strong), and 146.43 Mhz

while the Kenwood had birdies at:

144.075 Mhz., 144.080 Mhz. (strong). 144.085 Mhz. (strong),  
144.345 Mhz, 145.425 Mhz., and 145.635 Mhz

All these values are very impressive considering the range and coverage of the radios.

POWER OUTPUT	(Bird Wattmeter)			
Frequency	Kenwood	Yaesu	S-5 Hi	S-5 Lo
144.00	2.4 W	3.4 W*	5.0 W	.9 W
145.00	2.4	3.4	5.2	.8
146.00	2.4	3.4	5.4	.8
147.00	2.4	3.2	5.6	.78
147.99	2.35	3.0	5.8	.76
148.495	2.30			

\*All Yaesu low power measurements were the same all through the band. .225 W

The Tempo was the clear winner here. The ability to pump power out gave me a clear advantage down here in the natural hole in Normal Oklahoma. There were several spots in my house and office that were impervious without the power level of the S-5. The S-5 got stronger the higher in frequency, but the actual power difference in db is very insignificant. As K5 JB says, if you can't talk to them, you can't work them. I never ran the S-5 down, but I am sure that it can be done quite easily. The Kenwood always seemed to be going down and ditto on the Yaesu. The Kenwood has a handy (or is that handie?) little idiot indicator on the display that let you know when it was beddie by time on the battery. The Tempo LED would come on continuously and the Yahoo would just quit. All of which leads to current consumption:

Operation	Kenwood	Yaesu	S-5
Receiver Squelched	32 ma (28)	40 ma (45)	(17 ma)
Receiver Unsquelch	100 ma	150 ma (120)	
Transmit Hi	450 ma (500)	680 ma (800)	
Transmit Lo		280 ma (250)	(400 ma)
Memory Backup	(2 ma)	(4 ma)	

Values that are in parenthesis are book values and in some instance, I was even too lazy to look them up. The Kenwood didn't exactly meet its specs while

the Yaesu did quite well. I met a fellow who works for ABC at the OU-Texas football game who claims that there are some modifications on the various voltage regulators inside the Yaesu that cut the power consumption somewhat. For example the voltage regulator to the memory backup can be cut to nothing and other modifications on other regulators will reduce just about all the power consumption by about 20% or so. He promised to send me details. I didn't measure the current on the Tempo because of the difficulty in getting to the battery and keeping the radio in condition to transmit. This is one of the few bones that I would pick with the Tempo and that is the fact that the radio is difficult, no impossible to change the battery in. The mechanical difficulty in digging out the battery is one of the least mechanical aspects of the S-5. The mechanical difficulty stems from a poor fit of the case parts.

These values are comparable with the new Icom 2AT synthesized walkie talkie. K5JB supplied me with the following numbers; 22 ma squelched, 40 ma with audio at minimum and squelch open; in transmit with 250 mw the transmitter drew 220 ma; with 2.3 watts out, the transmit drew 480 ma.

Battery capacity is still the limiting factor for most synthesized radio. Compared to the Motorola Walkie Talkie squelched condition of 4.3 ma, these numbers are outrageous. What this means is that you will not be able to carry the radio for several days without charging. I found that for a fairly active listener, you needed to drop the radio into the charger as soon as you get home and if you are a heavy talker, you might consider a charger for the office. Each of the radios had a wall mount plug in type charger. As I mentioned earlier, the Yaesu had a plug in on the bottom which made it convenient only if you did not intend to keep the radio in an upright position during charge. Also, if you intend to use a charger (only after the warranty period ends, I hope) for the Kenwood and not supplied by Kenwood, then take note that the charging plug for the Kenwood has ground on what I always thought was the hot side of the plug and hot on the ground side. Sounds crazy no?

### ODD SPLITS?

The Kenwood could allow you to program an odd split by putting a transmit frequency into memory 10 and setting the receiver on the receiver frequency. The Yaesu allows you to program the division between the split. Two different methods to allow the same thing. The S-5 could not match the price or money spent, but it is a good little radio.

The Kenwood had good sensitivity, somewhere around .5 uV or so and the squelch sensitivity might have been .3 uV or so. I noticed some receiver birdies as I shished the signal generator back across and forth of the signal generator. However, every time required about 150,000 temperatore units.

### General Comments

I thought that choosing a walkie talkie is about as personal a decision as choosing a wife. If you carry a radio as much as I do, you will have more contact than perhaps a loved one. When I went to see Bill, I was certain that the TR-2400 would be my choice. But then I could get the Yaesu for less money and a radio with the same of the scanning features I had been thinking about. But there was the Tempo S-5 with enough energy in its 5 1/2 watts to talk out of the hole in Norman. I also realized that for as much as I use two meters, I didn't really need all the hoopla and baubles and bells and whistles. The Tempo would have sent me home with it if it hadn't been for the Icom idea of separate battery packs for backup.

I leaned strongly toward the Tempo because of the additional power of the S-5. K5JB kept telling me that the difference was only 3 db or less. Still, in my experimentation, I found that the power output did seem to make a difference. I have never owned a high power hand held, even of the Motorola persuasion. But the Tempo convinced me that there was something to Dennis WB5ISN plaintive bleatings about "high power handhelds."

At this point, I was plainly confused about what to do. I scoured the manuals and played with the radios some more. I especially checked the scan functions since one of my decisions would be if I needed all those bells and whistles. The Yaesu could be set up in scan function which would continue until it found a signal, then stop. Unfortunately, it would not continue after the signal had gone away. This means that scanning was at the mercy of every repeater i. d. that came along. WB5TZZ (who owns a Yaesu) told me that there is a company that has an add-on that allows the radio to continue scanning, but I feel that it should be unnecessary to invest in hardware when the problem should have been addressed in software. After all, the radio does have a microprocessor inside its little body. The scan rate is many channels per second (20, I think). Regardless, with its four channel capacity, the Yaesu is an effective device for someone who needs a couple of channels for his radio security blanket.

I next turned to the Kenwood. The scanning functions included 10 channels and the radio would resume scanning when a signal went off. The scan rate was much slower, almost one a second. I wondered if this could not be speeded up until I found that if you depressed the fast scan button, either up or down, the receiver would not actually be receiving on a particular frequency as you wizzed by it on the display. It seems that there was a direct finite lockup time for the receiver PLL and the slow scan rate was designed to allow ample time for lockup. This is also manifest in the transmitter by a term known as "the delay" which apparently is a finite lockup time as the radio switches to transmit. I never it in the two Kenwoods that I had the opportunity to play with, but I had heard a variety of comments from people in the trenches, those who use the radio every day. I also discovered another audio problem known as "the buzz" heard on the Kenwood transmitter audio. Several had indicated that there was a low level motorboating present on the Kenwood transmitted signal. Several solutions had been achieved including one person who wrapped the battery in aluminium foil. Sounds to me that they could use a little more bypassing on the B+ lead. Again, I never noticed this in several critical listening tests on the Kenwood. Except for low power output (1.5 watts instead of 2.4), WB5FZD's radio operated almost identical to the one I got from Bill. John just recently told me that the radio went belly up the other day and he had boxed it up to send it in for repair.

I also listened to the receive and transmitted audio of the radios and solicited various comments from others. I generally found that the S-5 had the crisp transmitted sound of a Motorola. The receiver was also excellent and the squelch action was very snappy. The Kenwood had good receive audio (I think it is a function of the larger case), but it seemed that the transmitted audio was kind of bassy. The Yaesu had excellent transmitted audio, but the receiver squelch was very loose. I played with K5JB's IC-2AT and found that the transmitted audio was excellent, but the receive audio was a little mushy and squelch action was a little loose. This loose squelch action in the Yaesu and the Icom might be intentional since occasional (or as in Norman, frequent) multipath could occasionally clamp your squelch shut unless you give it some "action" which holds the squelch open for a little while to prevent chopping.

I also didn't like the LED display of the Yaesu but only because it was difficult to read in the daylight. I understand that the display only draws six mils or so. The LCD display of the Kenwood is very impressive and is alway on unless

the radio is off. Having your receive and transmit frequency displayed at all times is both a convenience and a bother. The bother occurs when you move to the secret frequency at a hamfest and find that it is no longer secret. Just a minor bother for all except you purists.

What did I finally do? Nothing yet. I came very close to buying the S-5, but was dissuaded by the inconvenience of the battery. I passed up the scanning radios because of their larger size. I also think that my use of two meters might be limited to long term monitoring of the repeater of which I am trustee and I occasionally switch over to the 147.06 machine to check the local action. As such, I wish I had a scanner for just those two frequencies. WB5TZZ purchased the Yaesu for just that reason. The scan rate on the Kenwood is too slow for any use like I was interested in. The 10 channel capacity was helpful and I worked out a system of storing channels as follows

Channel 1	147.21	Channel 6	147.06
Channel 2	146.82	Channel 7	146.67
Channel 3	147.03	Channel 8	146.88
Channel 4	146.94	Channel 9	146.52
Channel 5	146.85	Channel 10	Open

By this method, I could remember what channel contained what frequency by looking at the last digit of the frequency, all except for 52 and I put it in 9 since Channel 2 already contained 146.82.

I am still not discouraged. I think that I will get the IC-2AT, not because I was disappointed with all of the radios, actually I would have been happy with any of them, especially the Tempo, but the Icom is smaller yet. Someone who would have need of scanning functions might be satisfied with one of the others. The Tempo was the all around lightest and smallest for a basic synthesized radio with 5 watts of goo. All these radios represent the state of the art and I am excited about what the next generation will hold. If anybody else has any comments about these radios, let me know and I'll pass them along.

Micheal Salem N5MS

#### FCC TO CONSIDER DIRECT SATELLITE BROADCASTING

Well all this stuff about satellite reception had to be going somewhere and the Commission has chimed in with a Notice of Public Inquiry to be released soon taking what will be the first formal step toward a Direct Broadcasting Service (DBS) from Satellite to Home. The staff has suggested that the satellites be placed at an altitude of 22,300 miles above the earth in geostationary orbit (I am glad to hear that they go along with at least this rule of physics) and are suggesting up link frequencies in the 10.7 Gigahertz or 17.3 Gigahertz range with a downlink of 12 Gigahertz. At these frequencies and using high powered satellites, the home stations should be able to get by with small two foot parabolic dishes containing a built in low noise amplifier/mixer down converter or a low noise mixer connected to the antenna terminals. It should also contain an am-fm converter. The Commission is also proposing a minimum of regulation in the area.

Well, I can tell you that the broadcasters in the present UHF and VHF service including the television networks are not exactly thrilled at the prospect. They view this service as class A competition. Strangely enough, Comsat, located in Washington, is the only organization that has expressed interest in providing DBS. It seems to me that the networks would jump on this like a duck on a June Bug (Do ducks really eat June Bugs?) They have a problem in that the TV networks are tied to various local TV broadcasters who would be literally livid if the networks jumped on the satellite bandwagon and left the local

broadcaster holding the bag for several billions worth of equipment.

Seems to me that this is an idea whose time has come and the commission is being remarkably broadminded at this point. This is merely an inquiry into the feasibility and desirability of such a service. Inquiries are invited until January 31, 1981 and replies to comments submitted to then will be accepted until March 31, 1981. Regardless of the speed with which the FCC moves on the DBS question during the next year, no service can be provided until 1985. That is when the Regional Administrative Radio Conference, which makes long-range, orbital slot locations for satellites in the western hemisphere, will complete its reports. No doubt there will a lot of heat and (I hope) light generated by the FCC's inquiry before then.

Micheal Salem N5MS

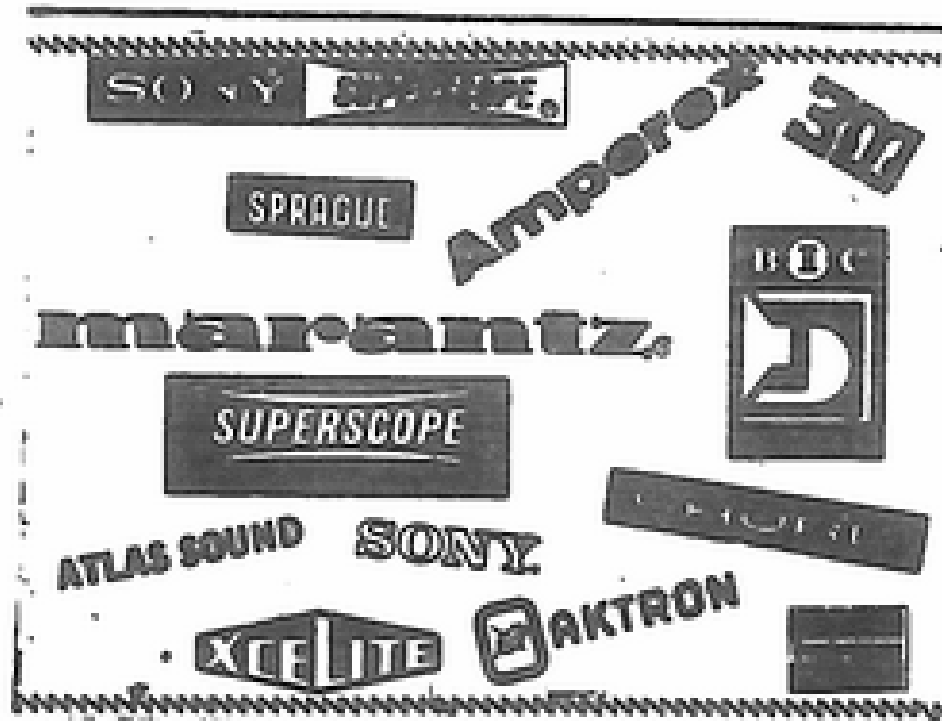
Wanted Parts: Don Moore, WA5FFK, formerly of Bethany, has been portable HR5 in Tegucigulpa, Honduras for several years he is presently attempting to build up a 3.250 Mhz shortwave transmitter for the natives, and is in need of parts to build an old fashioned AM transmitter in the 1 KW class. Parts particularly hard to come by are a 500 to 1000 watt modulation transformer. He is also in need of used 4-250 and 4-500 tubes and sockets, as well as old bread slicer type air variables, size not important as rig will fill room. If you can be of help please contact WB5NHZ, Henry, 321-5852 who is arranging shipment.

FOR SALE: One rig too many YAESU FT-7B 10-80 Mtrs Transciever, 100Wdc SSB-CW-AM fully crystaled with 30 amp power supply \$500. Call Henry 321-5852, Also have some 19" racks cheap U-Haul.

Wanted: P.O. Box outside the 5 call area, Objective preferential call. That seems to be the only way that I as an advanced class can come close to getting the calls that a novice upgrading to technition can request and receive. Well, I can always go for Extra. (fat chance) That was the advice that I got from the FCC last week. They say that a change may be in the future, but don't know when. Till then I can wait till 1982 or sign /6/5 WB5NHZ

Scanner owners Bearcat 210 - Sears 210, you can also recieve freqs. outside the listed limits in the manual. Try adding and subtracting the IF from out of the band frequencies that you want to receive, and if the result falls in an allowed area you may be in luck. Use your search area to check it out. Signals may be a little degraded signal wise, but if strong and local, it works well. This can triple your coverage and allow you to hear some interesting ones that think they are out of scanner range. more later. WB5NHZ

FOR SALE: Swan 700 CX, AC power supply, VW-2 VOX, Swan base mic, \$500 F.C. 76 frequency counter, \$80. 510X crystal oscillator. \$45. Call Wilbert, WD5ADQ 345-3320. Write Box 431, Yukon OK 73099.

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BICENTENNIAL AMATEUR RADIO CLUB  
CONSTITUTION  
Adopted with BY-LAWS 6 January 1976

PREAMBLE: Wishing to secure for ourselves the pleasures and benefits of the association of others in Amateur Radio, we constitute ~~ourselves~~  
THE BICENTENNIAL AMATEUR RADIO CLUB (THE SEVENTY-SIXERS)  
and enact this constitution ~~as~~ our governing law. It shall be our purpose to further exchange information and cooperation between members, promote radio knowledge, fraternalism and individual operating efficiency, and to conduct club programs and activities to advance the general interest and welfare of Amateur Radio.

ARTICLE I

MEMBERSHIP: All persons interested in radio communications (without pecuniary interest) shall be eligible for membership. Membership shall be by application and election as directed in the By-Laws.

ARTICLE II

OFFICERS: 1. The officers of this club shall be: President, Vice-President, Secretary, Treasurer and an Activities Manager.

2. The officers of this club shall be elected for a term of one year by ballot of the members present, provided there be a quorum, at the October meeting.

3. Vacancies occurring between elections must be filled by special elections at the first regular meeting following the withdrawal or resignation.

4. Officers may be removed by a three-fourths vote of the membership.

ARTICLE III

DUTIES OF OFFICERS: 1. The President shall preside at all meetings of this club and conduct the business of same according to the rules adopted. He shall enforce due observance of this Constitution and By-Laws, decide all questions of order, sign all official documents that are adopted by the club and none other, and perform all other customary duties pertaining to the office of president.

2. The Vice-President shall assume all the duties of the President in the absence of the latter and assist the Activities Manager in preparing programs.

3. The Secretary shall keep a record of the proceedings of all meetings, keep a roll of members, submit applications for membership, carry on all correspondence, read communications at each meeting and mail written meeting notices to each member. He shall at the expiration of his term turn over all items belonging to the club to the successor.

4. The Treasurer shall receive and receipt for all monies paid to the club: he shall keep an accurate account of all monies received and expended. He shall pay no bills without proper authorization by the club or its officers constituting a business committee. At the end of each quarter he shall submit an itemized statement of disbursements and receipts. He shall at the expiration of his term turn over every possession belonging to the club to the successor.

5. The Activities Manager shall organize club member activities, plan and recommend contests for operating benefit and advance club interest and activity as approved by the club. He shall encourage new stations in reporting activities to the club, His main objective is to keep the reputation of the club and radio activities in the community as outstanding as possible. He may appoint committees or assistants to aid him in specific branches of activity.

ARTICLE IV

MEETINGS: The By-Laws shall provide for regular and special meetings. At meetings, a minimum of one-third of the membership shall constitute a quorum for the transaction of business.



#### ARTICLE V

DUES : The Club, by majority vote of those present at any regular meeting, may levy upon the general membership such dues or assessments as shall be deemed necessary for the business of the organization within its objectives as set forth in the preamble. Non-payment of such dues or assessments shall be cause for expulsion from the club within the discretion of the membership.

#### ARTICLE VI

MEMBERSHIP ASSISTANCE : This club shall make every effort to minimize interference in operation between stations of its members. The club, through designated INTERFERENCE, PUBLIC RELATIONS and OPERATING COMMITTEES will provide technical advice to members concerning equipment design and operation to assist in frequency observance, clean signals, uniform practice and absence of spurious radiations from club-member-stations. The club shall also maintain a program to foster and guide public relations.

#### ARTICLE VII

AMENDMENTS : This constitution or the By-Laws may be amended by a two-thirds vote of those present. Proposals for amendments shall be submitted in writing at a regular meeting and shall be voted on at the next following regular meeting provided all members have been notified of the intent to amend the constitution or By-Laws at said meeting.

#### ARTICLE VIII

RULES : Robert's Rules of Order shall be used as a guide at all proceedings.

#### BY-LAWS

1. SECRETARY : It shall be the duty of the Secretary to keep the Constitution and By-Laws of the Club and have the same with him at every meeting. He shall cause all amendments, changes and additions to be noted thereon and shall permit the same to be consulted by the members upon request.

2. MEMBERSHIP : Applications for membership shall be submitted at a regular meeting in writing. Each applicant shall express a willingness to abide by the Constitution and By-Laws and other rules promulgated by the club. Two-thirds of those present shall approve the applicant before he shall be considered elected to membership.

3. MEETINGS : Regular meetings shall be held on the second Tuesday of (amended 14 Nov 78 from "third" Tuesday) each calendar month at the Will Rogers Air National Guard Base or at another time or place as decided by the membership to avoid conflicts or for special activities. Special meetings may be called by the President upon the written request of any five club members. Each member shall be notified at least 24 hours before such special meetings and of the business to be transacted. Only such business as designated by the notice shall be transacted.

4. DUES : A regular monthly assessment per member is hereby assessed in accordance with the provisions of Article V of the Constitution for the purpose of providing funds for current expenses.

5. TRAINING COMMITTEE : The Training Committee shall consist of five members appointed by the President. This committee shall direct a club-sponsored school in amateur radio. They shall set training periods, construct lesson plans, develop training materials, recruit instructors, publicize class dates and in general promote a desire to advance in radio knowledge.

6. SPONSORSHIP : The club agrees to sponsorship by the Oklahoma Air National Guard. The OKANG has agreed to furnish a place for club meetings provided that :

a. Club membership is open to anyone with an interest in radio communication.

b. The club is openly sponsored by the OKANG.

c. Proper care is taken of the facilities and property.





## 76ers MINUTES

The October meeting was called to order by Prez Joe WD5BMP at 7:05 pm on the 14th at the Air National Guard Base with 43 members and guests representing over 100 club members.

There having been no September meeting as such, no minutes were published which would need approval at this meeting.

The Treasurer being unavailable there was no Treasury report.

Announcements: the repeater is working.

Novice classes are being held Thursdays at 7:30pm at the Air National Guard Base - see Coy N50K for further information.

General classes are being held Tuesdays at 7:30pm at the same place - see Ernie K5YKD for further information.

There being no Old Business brought before the club the motion was made by Mark WD5DYI, seconded by Bill KB5BS and passed by the club that at least two nominees for each club office be identified before proceeding with balloting.

CONGRATULATIONS are hereby in order for the newly elected Officers

President - Bill Skipper KB5BS

Vice-President - Jerry Sprouhl N5AUH

Secretary - Jim Buswell N5BEQ

Treasurer - Joe Couch WD5BMP

Activities Manager - Bill Rogers WA5RAQ

The club unanimously voted a very well-deserved round of "Thanks" to Paul Asplin WA5HTL for his year's efforts as Activities Manager and that said resolution be made an official part of the minutes as herein.

There is still a need for an interested club member to step forward as Club Editor, pays the same as all other club offices whether elected, appointed or voluntary. See Bill KB5BS.

Don Duck AE5N was appointed Technical Committee Chairman and then asked Charles Kennamer WA4PLG, Coy Day N50K and C.Y. Chandler WB5TKG to serve with him.

President Bill KB5BS tasked the club to write down before the next meeting and bring along at least five activities that will stimulate club growth such as a portable station at a shopping center for passing public traffic, social excursions to local lakes, roller skating party or ice cream social.

If you have an idea for a Christmas party Tuesday 9 December, see Don AE5N.

The club took a break for refreshments from 7:52 till 8:12 pm.

Dues were clarified at \$4.00 per member per year with an optional Repeater Support Fee of \$10.00 per family per year.

John Galway KH6JTE missed the ice cream social last month due to becoming a father "again." Congratulations, John and family.

Congratulations also to recent upgrades Bill WD5EMA and K5AFD Bill and apologies to those forgotten in the rush.

There being no further business the club adjourned at 8:28 pm.

Next meeting, same time, same place, 11 November, CU.

Jim N5BEQ  
Secretary

For Sale : 12-volt, 6-amp power supply, regulated, \$30.00, Dick WB5TMW

For Sale : Spalding 48' tower, \$200.00, Harry WD5IDE

For Sale or Trade : CDE Rotor and control, tri-band beam, Vern K9JTW

For Sale : Convertible-to-10-meters Cobra 139xlr, \$100.00, Jerry N5AUP

AGE SAGE: HOW TO KNOW WHEN YOU'RE GROWING OLDER or IS THERE REALLY LIFE AFTER 40 ? : WHEN YOU GET TOO MUCH ROOM IN THE HOUSE AND NOT ENUFF ROOM IN THE MEDICINE CABINET.!

jim n5beq



Edmond Amateur Radio Club  
P.O. Box 7222 / Okla. City, Ok. 73147

Editor: Stan Van Nort WB5UIY

### MINUTES OF SEPTEMBER BUSINESS MEETING

The meeting was called to order by The Commander-in-Chief, Harold plunk at 7:30 PM on 9/8/80. Minutes were read and approved. Treasurer report read and approved. At this point Vice-President Bob Shaw noted that Leo, KØLOT, made it to his first meeting since he had joined. Under old business there was a motion by Bob Shaw to purchase 2 UHF antennas for the 63/03 repeater link. Seconded by Jack Perry and approved. Discussion continued with an update of the status of both repeaters and their operation.

New Business started with a discussion of autopatch abuse by an anonamous jerk. (Jerk is sometimes used to replace several other adjectives known as profanity and are not printed in this family publication) It was apparent the jerk is a ham operator and was not a member of the club. The meeting continued with suggestions on how to reduce the abuse. A motion to PL (tone encoders) the system was passed and discussed again. The vote was again made on PL and was struck down because of a suggestion to try another method. Martin Vinson, WD5FEI, made a comment on changing the access code and muting the audio output of the repeater. After a stirring speech by Larry Dillard, WB5CWB, a motion was made by Larry Stewart, WB5POW, to purchase equipment to make autopatch access using several digits and audio muting. Seconded by Bob Shaw and approved unanimously. Martin advised he would volunteer to build the circuit up and help Dennis, WB5ISN, to install it.

There is mention by Dennis that he currently owned a 93/33 repeater and suggested the club purchase it or sponser it as an additional machine. The discussion was dropped until the next meeting.

Motion to adjourn by Bob Shaw and seconded by Howard Thompson. Meeting was therefore adjourned, making it one of the shorter meetings in several months. The group then proceded to a local dining establishment, with the Sec/Treas. unfortunately having to return to work.

### REPEATER UPDATE

The 63/03 machine now has the new autopatch equipment installed and has been working fine since Friday 10/16/80. The new access code will not be discussed on the air. If you have not been informed on the proper procedure contact Dennis, Martin, Stan, or Bob shaw, and you will be contacted by phone. The Still water boys (men ?) will be mailed information.

### DINNER MEETING OF OCTOBER

The usual social meeting held on even numbered months, was started early on 10/6/80 by Howard Thompson who always has to begin before the others to be finished on time. (He claims he had to go to church, maybe they were having a bean supper.) The group was smaller this time, however, 20 people were present to eat at the Sizzlin Sirloin in Downtown Edmond. Larry Dillard complained about having to go North of the river again, and got mad. He therefore hopped a jet, flew to Hawaii and a meal that put all to shame. He also gained 25 pounds and ended up with jet-lag indeigestion. Everyone had a good time and nobody missed Larry. It was noted the Pres. and Vice-Pres. didn't make it either. Maybe the December meeting will be a bigger turn-out. It's about time for another Chili dinner, and your editor here is fully prepared for this event. We ought to make it annual affair, since we have had one the last two years in December.

### NEXT MEETTING-BUSINESS-NOVEMBER 3, 1980-MONDAY

Don't forget to check your C. & E. adress label for your dues exp.



WS PAA

EDITOR: Bob Graham, WB5NSV 677-8685

#### MINUTES OF THE OCTOBER MEETING OF THE ACARC

The meeting was called to order at 8:01 PM by President Bob Pace, WA5CJG. There was a large crowd of members and guests present. After opening the meeting with the usual round of self-introductions, a very brief business meeting was held. A brief summary follows:

A radiogram addressed to the club from W5JJ was read aloud. The radiogram discussed possible club Christmas dinner plans. After some discussion, the group decided to look further before any decisions are made.

An important discussion concerning the yellow cards which were included in last months C & E mailing followed. The purpose of these cards was made clear to all, and everyone was reminded of the great importance given them.

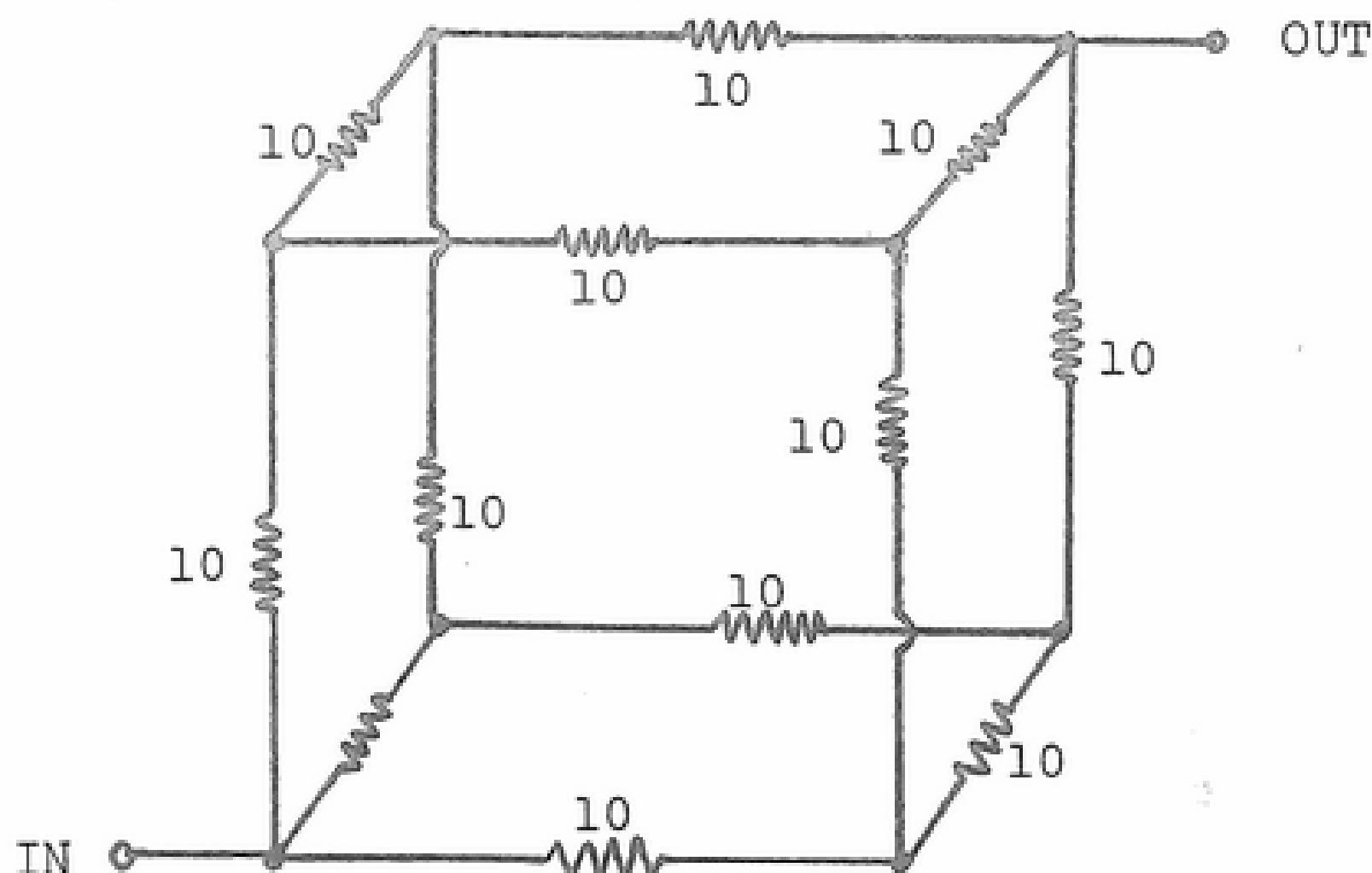
At this point any further business was postponed until next month to allow an early start for our auction. After explaining the rules auctioneer-president Pace commenced the bidding. Much equipment changed hands, and everyone seemed to be quite pleased with his sale or purchase or both. The meeting adjourned at 10:30!!!!

73, Bob Graham, WB5NSV, Sec.

#### THINK AGAIN

While trying to prepare for my regular Wednesday night Novice class at the Red Cross, I was trying to think of some thought provoking series-parallel resistor combinations. Recalling a circuit that I once was required to work, the circuit below came to mind. Although I consider it above the average Novice class, it should stir up many of your cobwebs. If you have the answer in hand please submit it along with your calculations (it's to easy to build and measure).

Look again, it's not as easy as it looks!!!



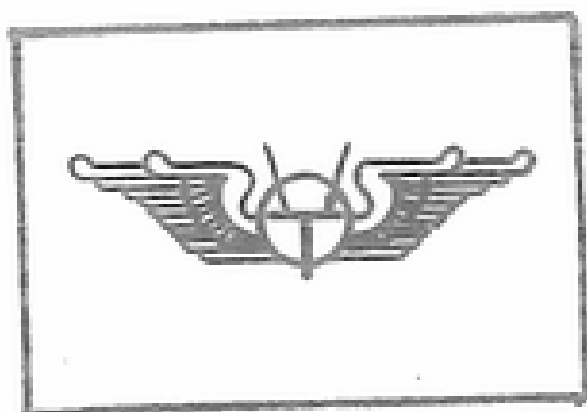
All Resistors = 10 ohms      What is  $R_{total}$

Submitted by Bob Graham, WB5NSV

Remember WB5HUP? Loyd is in his fifth week at Flight Facilities School at Keesler AFB. He has 20 more weeks to go. As usual he is averaging 99.5 on all tests so far, and will have 30 hours towards an Associate Degree when he finishes - - then he will be stationed on Guam. He would sure like to hear from his friends:

Lloyd Kirk, WB5HUP, PSL #4, Box 16523, Keesler AFB MS 39534.

November 1980



#### RANDOM WORDS FROM THE PRESIDENT:

FIRST OF ALL LET ME SAY THANKS TO EVERYONE WHO CAME OUT TO THE ACARC CLUB MEETING IN OCT. WE ALL HAD A SUPER TIME. THERE WAS A AUCTION THAT MAYBE LASTED A LITTLE TO LONG BUT IT WAS FUN ANYWAY. I WOULD LIKE TO THANK WB5NSV, WB5AAY, K5KDR, N5ABL, WD5GWH, AND W5HXL FOR ALL THE HELP THEY GAVE ME DURING THE AUCTION, IT WAS FUN....

WE HAVE A GOOD PROGRAM COMMING UP IN NOV. IT WILL BE PRESENTED BY OUR OWN WB5AAY, LARRY, SO EVERY BODY COME ON OUT AND JOIN US. THE DEC. MEETING WILL BE OUR ANAUL CHRISTMAS DINNER, WE WILL TALK ABOUT THIS AT THE NOVEMBER MEETING. SO BE SURE YOU ARE THERE!!!

ALSO COMMING UP IN NOVEMBER IS A VERY IMPORTANT DAY, AS EVERY ONE SHOULD REMBER THAT NOVEMBER THE 4 TH IS ELECTION DAY AND THIS WILL BE THE MOST IMPORTANT ELECTION OF OUR LIFE TIME SO IF YOU DON'T EVER DO ANYTHING ELSE WOULD YOU PLEASE VOTE IN THIS ELECTION, IF YOU DON'T THEN DON'T BLAME ANYBODY ELSE FOR WHAT HAPPENS TO OUR COUNTRY...

73, BOB PACE, WA5CJG.

#### INSTALLING RADIO STATIONS IN A WATERCRAFT

The July issue of Amateur Radio, available in the ACARC clubroom, has a long and truly in-depth treatment of just about every aspect of installing amateur radio transmitting and receiving equipment in a watercraft. Sooooo, if you have a craft you intend to operate water-mobile on an Oklahoma lake or maritime-mobile upon the high seas, just consult Amateur Radio for the answers to all your problems.

W5JJ

#### COMPLETE STATION

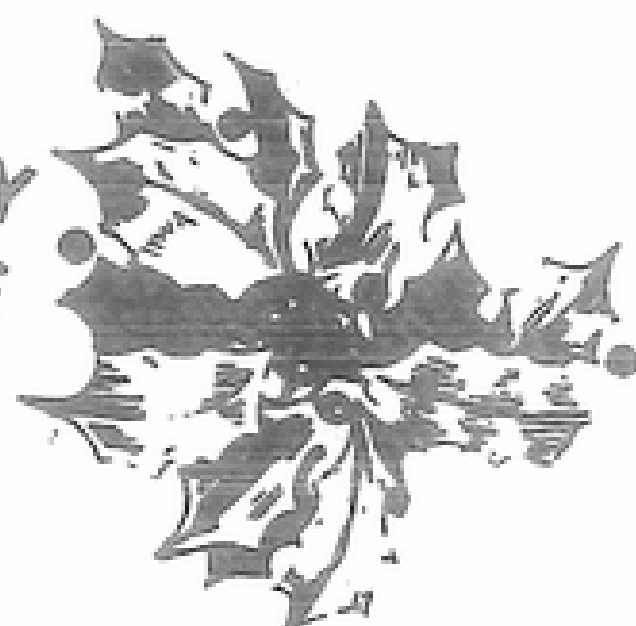
OMNI-A Recently factory converted to Series "B" and completely updated. Entire station is in excellent condition. Includes Noise Blanker, Remote VFO, Outboard digital display with a counter, and a new Speed-X key on heavy custom base. In original factory boxes, complete with all manuals. Owner is no longer interested in Ham Radio and wants to dispose of the equipment. \$900.00 Buys all. Rob Runyon, AA00, 373-1818.

Wanted Tempo 2020 owner: I am interested in obtaining copies of any manuals, Owners, Service on this rig as well as 2001. Please Call WB5NHZ, Henry 321-5852.



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8 WIRE ROTOR 2#12, 6#14AWG (FOOT) .17

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32-19 2MTR. BOOMER 19El. SSB \$ 73.00  
214B 2MTR. JR. BOOMER 14El. SSB \$ 58.00  
214FB 2MTR. JR. BOOMER 14El. FM \$ 58.00  
ARX2B NEW RINGO RANGER \$ 34.50  
A144-11 2MTR. 11-ELEMENT FM \$ 35.00  
  
4BTV FOUR BAND TRAP VERTICAL \$ 77.00  
5BTV FIVE BAND TRAP VERTICAL \$ 88.00  
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PUBLIC SERVICE -

The following CORA members performed exemplary duty as Net Control, Assistant Nat Control and all round Helper. 2 NCs are blind (+).

Dale	K5WUF	56 hours	Jim	N5BEQ	38 hours
Don	K5SJV	32	Lee	W5HLZ	27
Sid	WA5TAR	27	Merrill	WA5PTQ	20
Jim	K5VRL	14	Hugh	AJ5J	14
Don	WD5ISS	12	Gary	W5GNV	14
Frank	W5PDH	12	Bob	WD5EVP	11
Martin(+)	WB5AGZ	8	Chuck	K5NK	8
Bryan	N5BEV	8	Sid	W5KOZ	8
Carol(+)	K5CPZ	4	Frank	N5CIJ	4
Don	WD5DGC	8	Mac	WA6GCY	4
Dave	KB5KT	4	Fred	KA5CXW	82
Vern	K9JTW	44	Harold	WA5VAQ	18
Mac	W5WMZ	16	Bob	WB5PWZ	12
Mark	WD5DYI	12	Bob	N5BUJ	10
Kay	WD5DYJ	8	June	N5APV	7
Max	KA5IDQ	6	Chuck	WD5IHF	6
Frank	N5FM	6	Bill	W5DDI	6

The following turned out to help for one net, and we thank them.

N5ABL, N5BNC, N5CCX, N5CKH, KA5DCI, W5DDE, KA5DSM, KA5DCM, KA5GEP, (Thnx Donna), K5GGL, WD5GVJ, WD5HXK, WD5IBC, WD5JNT, K5LIL, W5OXX, WB5RLR, K5SCY, K5SKA, K5SVN (Thnx Jack), WB5TMW, K5YAQ - - and we hope we haven't missed anyone.



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# Central Oklahoma Radio Amateurs

## "CORA COMMAND POST"---OUR FIRST YEAR

CORA'S PUBLIC SERVICE PROJECT AT THE OKLA STATE FAIR BEGAN 19 SEPTEMBER AND RAN TO 28 SEPTEMBER. IT SURELY WAS AN AMBITIOUS PROJECT....AND AWESOME!!! 22 LOYAL RADIO AMATEURS SERVED AS THE COMMAND POST NET CONTROL....IN CONTACT WITH THE OKLA. CITY POLICE COMMAND POST, WITH THE STATE FAIR POLICE/OFFICES AND NECESSARY CALLS OVER THE CITY. IN ADDITION TO THE NET CONTROL VOLUNTEERS, 37 OTHER RADIO AMATEURS FORMED THE BASIS OF THE FINE NETS DURING THE WEEK. OFTEN, AFTER SERVING AS NET CONTROL FOLK LIKE K5SJV, N5BEQ, W5HLZ, WD5EVP, WA5TAR AND K5WUF WENT OUT IN THE GROUNDS AS NET MEMBERS. NET MEMBERS SPENT SOME 500 MANHOURS, ALONG WITH THE NET CONTROL MANHOURS TOTALLING: 650 HOURS FOR THE PROJECT. ARES MEMBERS WERE VERY MUCH IN EVIDENCE ADDING TO KEY AMATEURS FROM ALL THE LOCAL CLUBS TO PROVIDE A VERY FINE SERVICE TO THE PEOPLE ATTENDING OUR STATE FAIR. MAYBE THE ARES TRAINING NET MONDAY NIGHT WILL PAY OFF!!!



THANKS TO EACH AND EVERY ONE WHO CHEERFULLY VOLUNTEERED, AND A SPECIAL THANKS TO THOSE WHO CAME BACK TO HELP DAY AFTER DAY. THE GLOWING REMARKS FROM THE POLICE AND THE PEOPLE WE HELPED REWARDED US ALL. ALL WHO I HAVE TALKED TO SAY THAT THEY REALLY ENJOYED THE EXPERIENCES THAT WEEK!

FRED KA5CXW

## "WE HEARD AT CORA COMMAND POST"

- \*GOLLY...I DIDN'T THINK 146.52 WOULD BE HEARD SO FAR OUT IN OKLA CITY TSK TSK CY
- \*HEARD ABOUT N5BEV BEING CHASED BY A FELLOW HE DISCOVERED VANDALIZING A CAR..
- WHEW!! W5HLZ AND N5BEV SIGNED THE COMPLAINT WHEN THE VANDAL WAS APPREHENDED...
- \*K5WUF, DALE DISTINGUISHED HIMSELF BY HIS CONSTANCY AND HIS SHARP EYES THAT ALWAYS DISCOVERED FUNNY BUSINESS IN HIS CHOSEN AREA. DID YOU NOTICE IN THE TALLY THAT HE STAYED WITH US 56 HOURS? THANKS DALE!
- \*A SPECIAL THANKS TO BLIND AMATEUR OPERATORS CAROL KING K5CPZ, AND MARTIN, WB5AGZ FOR THE FINE JOB THEY DID AT NET CONTROL. ITS FASCINATING TO SEE THEM USE THE PLATEN AND STYLUS AT OVER 30 WORDS A MINUTE AS THEY RECORDED THIER LOG.
- \*DID YOU NOTICE ALSO THAT JIM BUSWELL, N5BEQ WAS PRESENT FOR DUTY AS NET CONTROL A TOTAL OF 11 TIMES! DONT' KNOW HOW THE LATE (NITE\*OWL) NET COULD HAVE OPERATED WITOUT HIM AS NET CONTROL.
- \*OUR ONLY TECHNICAL PROBLEM DEVELOPED MONDAY WHEN THE POLICE COMPLAINED OF HEARING US ON THIER REPEATER FREQUENCY..WE QUICKLY DISCOVERED ONE OF OUR RIGS WAS A 12.21 IF DESIGN THAT WAS HEARD ON 158.73. NEEDLESS TO SAY, FOR THE REST OF THE WEEK WE HAD TRIAL TRANSMISSIONS ON NET MEMBERS RIGS AT THE BEGINNING OF EACH NET...
- \*A SPECIAL THANKS TO SID, WA5TAR WHO PATROLLED BY CYCLE WHEN WE WERE SHORT OF NET.
- \*WE THANK BOTH W5PDH FRANK AND WB5SVN, JACK WHO LOANED US RADIOS WHEN WE REALLY NEEDED RIGS FOR VOLUNTEERS WITHOUT 2-METER EQUIPMENT.
- \*K5SJV, DON SURE CAME PREPARED FOR NET CONTROL OR FOR NET DUTY, WITH A VAN AND BATTERY POWER BESIDES. HE NEEDED A CATTLE PROD FOR THE FENCE CLIMBERS!
- \*W5PDH CHATTED WITH CHARLIE GREENE BY SSB OUT OF HIS MOBILE UNIT. CHARLIE, WA5JGU WAS OUT IN THE TEXAS PANHANDLE DEMONSTRATING RED CROSS DISASTER SERVICES AT A FAIR OUT THERE.
- \*ONE THING FOR SURE, THE PARKING LOTS WE WATCHED HAD MINIMUM ILLEGAL ACTIVITY. THE RASCALS MUST HAVE KNOWN WE WERE WATCHING!
- \*A SPECIAL THANKS TO THE FANTASTIC HUSBAND/WIFE TEAMS LIKE WD5DYI/WD5DYJ AND WD5EVP/N5ARV WHO REALLY ENJOYED HELPING.
- \*THANKS ALSO TO THE HIKERS AND SISTER TEAM (BOTH) WHO NURSED SORE FEET BUT SMILED ALL THE SAME. WOULD YOU BELIEVE KA5GEP, DONNA AND N5BEP SYRENA!!!
- \*THANKS TO DON WD5ISS WHO FURNISHED THE FINE MAPS WE USED DURING THE PROJECT. HE WAS ALWAYS THERE WHEN NEEDED.
- \*A GREAT BIG THANKS TO CY, WB5TKG FOR THE FINE NET CONTROL ANTENNA THAT HE LOST SLEEP BUILDING AND TO JERRY, KA5DCM WHO HELPED HIM ERECT IT.

FRED KA5CXW

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# THE AMERICAN RADIO RELAY LEAGUE, INC.

OFFICE OF THE  
SECTION COMMUNICATIONS-MANAGER

LEONARD HOLLAR WA5FSN

QST  
OFFICIAL ORGAN

As I write this, I am making preparations to attend the Hamfest at Beaver. and then the following week—and the old faithful; Texoma Hamarama. We are going to be optimistic and say that both were successful as usual. This past month we have been to Tulsa and Bartlesville. While at Tulsa, it was our privilege to present Adrian Rea, W5DRZ with the League recognition plaque that he so rightly deserves.

In doing some research regarding some interference problems lately, I ran across the following:

FCC. Part 97.67 Maximum Authorized Power

(b) Notwithstanding the provisions of paragraph (a) of this section, Amateur Stations shall use the minimum amount of transmitter power to carry out the desired communications.

Oklahoma Net Activities for September, 1980

Net:	Sessions	QNI	QTC	WX
O.P.E.N.	4	225	10	
O.F.O.N.	21	247	43	
S.T.N.	26	380	98	
O.T.W.N.	26	412	329	294
O.A.N.	30	156	24	
O.L.Z	30	207	75	
NightOwl	30	483	61	
M.W.O.S.N.	13	168	5	
Q.C.W.A.	4	125	12.	

As you can see; both the C.W. Nets can use some Bolstering up.

73's



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# The South Canadian Amateur Radio Society

EDITOR: Jack Bickham, WB5TZZ

329-1311

## SCARS CHRISTMAS PARTY REMINDER

Here's a reminder that the annual Norman amateur radio Christmas party will be Saturday, December 13th, in the President's dining room upstairs in the Commons, OCCE. We'll begin gathering at 6 p.m., and food will be served promptly at 6:30.

Tickets at \$6 per person are available. Pay Bill Oliver, K5KDR, and your name will go on the attendance list.

The dining room comfortably seats only about 40 persons. Early reservations will help planners move to a bigger room if necessary. If you wait till the last minute and then can't get in because space is sold and it's too late to move the party...well, we warned you.

Although a brief entertaining program is planned, the usual rule will be invoked: no head table, and therefore *no speeches*.

## EQUIPMENT REVIEW: AZDEN PCS 2000

When the October QST appeared, carrying ads for the Azden synthesized 2-meter rig at the incredible price of \$259, rumors immediately started on the bands that the company was going out of business. The Oklahoma City area dealer for Azden promptly denied it. It would indeed be the supreme irony if appearance of the best buy for perhaps the most versatile FM rig around at any price would signal trouble for the company.

Thanks to K3TGY, I have had a chance to look the Azden over carefully, and calling it a tremendous little radio is based on considerable use and comparison with a number of other mobile/base rigs such as the Kenwood and Yaesu. The Azden is said to share parentage with the KDK, and that's the only rig it might be compared with on a head-to-head basis.

It's hard to know where to start in talking about this unit. For one thing, its control head can be detached for the dashboard while the bulk of the unit is remoted for greater security and convenience. For another, the microphone can be used to control frequency, manual scanning, volume, squelch, and priority channel selection as well as, of course, the normal PTT function. For another, its claimed power of 5 watts and 25 watts is conservative; it runs closer to 8 and 30. It tolerates reasonably high SWR well, and is both handsome and rugged.

What else can be said? With the Azden, one is just getting started.

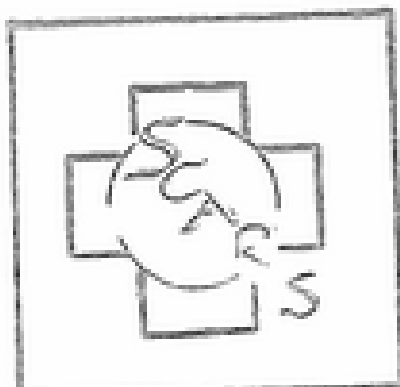
If you haven't meddled with one of the pushbutton-controlled talkies, and know nothing about commanding a microprocessor with pushbuttons, the Azden may at first scare you to death. All commands are by buttons; there isn't a conventional looking knob anywhere. Even the S/RP indicator is a bank of LEDs rather than the usual meter; an S-9 signal lights the whole horizontal row, a weaker signal may break squelch and light only a couple.

The frequency indicators are red LEDs, and large. That's a good thing because you've got to read the numbers to know what you're putting into the processor. A bank of pushbuttons is used for programming. Essentially what you do is push frequency change buttons, up or down, to display the desired frequency. Then you "write" this frequency into one of six memories, if you wish, by pressing another button. After stepping the selector to the next memory, you repeat the process. Any frequency in memory can be recalled by pushing the appropriate recall button. There's a special button -- both on the radio and the mike -- to recall Memory 1 as a priority channel. Tiny nicads with a use life of about six months hold the memory once you've set it, or you can erase and change quickly.

The Azden provides for memory scan with resumption of scan after the carrier drops. It can scan for busy or for open. You can also scan the entire band or any section you wish, either automatically or by using hand mike pushbuttons. A special switch provision allows the user to program virtually any offset with purchase of one extra crystal. Plus 5 provision is by a button (what else?) on the front panel; the LEDs show the addition, so you're not likely to forget it when you go to another repeater with a more normal frequency.

It all sounds a little complex, and seems so for the first hour or so you play with the rig. Then, however, you tend to take some of it for granted -- and

(Continued)



*(Continued)*

like it very much. A good user manual includes details on inputs in case the buyer wants to rig up his own control box, and that's tempting.

An added feature to the priority channel gizmo is the fact that the microprocessor "remembers" the memory channel it was on before being switched to Memory 1. By the touch of a button, the rig can be returned to that other memory position without "stepping" the selector through any memory positions in between. Want to scan the memory? Push a button. Want to scan the band? Push a button. Want to go back to a particular channel? -- Well, you get the idea.

One minor proviso: the Azden tends to be a power hog. I first assumed that I could run it in the low power position using a 2.5 amp power supply. About the sixth time the breaker went on the supply, I scrounged up a Yaesu 4-amp supply that does just wonderfully, thank you, with the Yaesu FT-7. Now no breakers popped, but most times when I keyed the mike, the memory went blank and we were back to GO without our \$200. A VOM showed what was going on. When the Azden transmitter was keyed -- regardless of output power selection -- it was pulling over 5 amps, knocking the Yaesu supply out of regulation, and dropping the voltage to the microprocessor below 12 volts. The microprocessor didn't like that, and got amnesia. Out came a bullmoose supply about four times bigger than the rig, and problems disappeared. But don't think you're going to run the Azden with a rinkydink supply; it won't work.

We'll not lay claimed sensitivity figures on you, but the receiver section is as good as any we've ever heard on two meters, and the sound quality is excellent. Transmit audio is strong and clear. This, we think, would be in the "best buy" category at twice the asking price.

#### *NOMINATIONS OPEN FOR SCARS OFFICES, 1981*

John, N5ABC, acting president, has named himself, AF5X and WB5TZZ as the nominating committee for new officers for 1981. Members are encouraged to give the committee ideas for new officers. Suggest someone else -- or suggest yourself! To be elected are a president, vice president, treasurer and secretary. We must also select new CORA representatives, and maybe someone will move to impeach the club reporter. I devoutly hope so; I'm running out of Liquid Paper.

#### *W45RPP/R OPERATING AGAIN*

After time out for maintenance, tower work and head-scratching, the W45RPP/R repeater is operating again on 146.625-.025. Due to 60-foot antenna height it is a local machine only. Users are reminded that it does have a time-out timer.

#### *CHINA REPORT, PART II*

*Last Month, W5AVK began his report on a trip to China. In this month's continuation, he tells of visiting a commune...and other surprises.*

*By John Nelson, W5AVK*

We jumped on the train again to Cheng Chow where we had the honor I believe to be among the comparatively few American tourists to visit a Communist commune. This was a surprise to us all and I believe the highlight of our tour. Ending as it began with the touring of the magnificent great wall of China, we observed the results of the peoples revolution of China which began as late as 1949.

Now I cannot relate to you all the details of the operation of a commune because there are so many different types but what we saw was only one brigade of many that go to make up one agricultural commune. I don't remember how many there are scattered throughout China but quite a few.

Now as we were drinking tea, the girl who was the present leader selected for a two year term, told us how she assigned work, kept records, gave us the figures, the production quotas of various crops raised in the particular commune, the hours of work, pay and division of surplus and pay incentives. It works similar to our Co-ops in this country in some ways. The word "taxes" was not a familiar word in China. They just could not understand what we were talking about.

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there is the education of the people. Since the revolution in 1949 China has 40 to 60% people going to elementary school. Less get along to high school level. Then comes the applications for college. Only three percent of those that pass the tests are selected. The government sponsors the college fees and finds work so the participant can pay back his college loan.

One does not have to join the communist party to get an education, rather it is somewhat of a challenge to be accepted in the party. One applies for membership, is examined by party members, voted on and then has one-year probation. Before he can be called a party member. Only 3% of the billion population are party members and this does not include the youth federation movement which is the training one gets up to the age of 18. Children don't even have to join that but there are incentives they receive and somewhat of an honor to be in the youth movement.

At every train stop, or bus stop, someone would spy a foreigner and spread the word. Soon others would stop by just to look at the strange faces who were also looking at them through the eye of a camera. I saw very few smiling faces among the Chinese people as they stood and stared at us. But there is no fool like an old fool I say and I waved a Nee-Ha (hello) or Tsai-Jien (goodbye) to them and it always worked, I got a smile back.

Sometimes I got a surprise. I would get a hello back and then I knew the person was or has studied English in school. Many times Chinese people just started talking to me just to see if they could speak English and I soon learned how to speak my own language properly to make it understood. They wanted practice so we gave many an English lesson on our trip. English lessons are broadcast on the radio daily, about noon or siesta time and in the evenings after dark. The government issues small booklets for practice in writing and reading and let me tell you, they study.

In Sian we attended a Chinese opera, which was put on by a troupe from Sinkiang, one of the provinces in the Northwestern part. The musical instruments were unusual but made good music. Singing and dancing was also good. The announcements for the music was interpreted for the local Chinese people because the dialects are so different. The characters or Chinese writings are the same all over China.

Likewise buildings are all the same construction all over China, made mostly of concrete panels heavily reinforced with steel. I cannot say how much plumbing is being put in because I did not see any. When you make your trip you are warned to be prepared. They do not manufacture their plumbing furniture the same style as the U.S.

There was another observation I made. In a few places I saw small cemeteries mostly on the sides of hills. After asking our interpreters why so few when there are over a billion population, I was told that after the revolution it was decided that honorable ancestors would be more pleased if their remains were recycled to help grow more food crops. Therefore cemeteries were plowed over, boards and bones scattered. That is as far as I dared pursue the subject.

After the first 24 hours on the train you just become plain numb or pooped, and wonder how did you ever get yourself into such a trip. You quit studying the people and their endeavors to do what they are told to do and start looking at other things. You see marijuana growing wild all over the countryside. But as I have heard it is mostly the larger wild type and not so powerful a space travel. Some is used as hemp or rope making when properly cured.

Men smoke cigarettes but I never saw a lady light up. The young people, listening to the teachings of the youth organization, do not smoke. We did see some tobacco growing but it is not one of the outstanding commercial agricultural products. Corn, rice and apples along with cotton seem to be the commercial products of the central area.

Did you ever try to eat with chopsticks? Well, when you cross over the fence between the English-speaking people of Hong Kong and the Chinese people of Canton, you just automatically switch with no questions asked. Either you master the technique of chopsticks, use your fingers, or go hungry. Chinese food is prepared so the bites can be picked up with the sticks and transferred to the mouth with as little dripping as possible. I mastered the technique of keeping the foot-long sticks together by always having a rubber band handy which I put on one end of the sticks thereby making a pair of tweezers, a spring action...never lost a bite. It was always a lot of fun making remarks about what Emily Post would say about my table manners.

*(In next month's concluding episode, W5AVK tells about transportation for the common person in China, and relates the story of his departure for America.)*

kay

C O U N T Y   A M A T E U R   R A D I O   C L U B  
C O U N T Y   A M A T E U R   R A D I O   C L U B  
C O U N T Y   A M A T E U R   R A D I O   C L U B

ON YOUR MARK---

I didn't even make it this far last month. Sorry about that! I didn't receive my C&E and so I didn't know the deadline. But I'm ready this month--

READY---

Well, we are attempting at all times to be ready for anything--like the SET this last month and keeping ourselves and our equipment ready. At least the cool weather hit with no problems. As long as it stays this way we're ALRIGHT!

GET SET---

We have some really good programs ahead. The one that will be over with when you read this will have been the Southwestern Bell Science Demonstrator. We had Roy Pitts from Motorola on range predictions and other related mobile data in September, and he also had a new 2001 service monitor and demonstrated how it is used to align radios. That was a very informative program.

For November, we have Leonard Holler from ARRL to speak to us on net communications. Don't miss this one!!

ARE YOU SURE YOU ARE READY?

Start checking your antenna farm. Winter is around the corner and if you don't have enough up to fall down, you don't have enough up. And it's always a good idea to clean and check connections and guy wires, etc. before it's too cold and wet to do it! Lets not procrastinate!! (HA! HA!)

GO!!

Let's get going to these club meetings and make those Monday night nets! Activity and participation are the keys to a successful organization. You've paid your dues, so you have a voice in allo club oriented matters. Like your vote on November 4th, you have a responsibility here. Don't abuse it -- use it!

SEE YA! *Stan*



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5-10



EDITOR: Virginia Beneda, 825-3302

Our heartiest congratulations go to KA5FUU, Tom Johnson upgrading to General and WD5GLD, Richard Ruhl upgrading to Advance.

At the September meeting 34 members and visitors enjoyed a watermelon feast furnished by W5MGZ, Perry Jones.

Personally I think it was a privilege and a good civic duty for the ham radio operators who had the time to serve and assist the security police at the state fair parking lots.

We would like to invite anyone to check into the Wheatstraw Net, .01/.61, every Wednesday evening at nine o'clock until the time changes to Standard time, when it will return to eight thirty. The net is informal. We have not had much repeater problems but our technicians have been right on top of things.

The October meeting was at the Citizens National Bank building, in the Gold Room with 22 present. Jim, K5VRL, reported that George, K5GGL was elected treasurer of CORA at their last meeting. Congratulations, George, I hope.

The Wheatstraw club has always had a Christmas Dinner which is "dutch treat", ever since I have been with them. A few years back it was voted by the club to quit swapping gifts and to give the money that would otherwise be spent to the Crippled Children's Hospital in Oklahoma City for the children's Christmas Fund. The response has been great every year. This year's dinner will be at the County Fair in Watonga. Everyone is welcome, we will eat at 1:30, hoping that that will give everyone a chance to go to church that wishes. The Country Fair is at highway 33 & Noble, there is a Phillips 66 service station across the street, south. The date is December 7th.

November meeting will be held in Oklahoma City, location is to be decided by Jim, K5VRL, so be sure and check in on Wednesday nights. We think Jim is going to provide us with some good entertainment. Plans are that we will eat at the meeting.

In the October issue of C&E there was a yellow card for every subscriber to complete, sign and return to CORA, not for your sake but for the sake of every member PLEASE do it. (Or get dropped, Joe, WA5ZNF)

I hear comments that the committees are already working on HAM HOLIDAY '81. It is said that there is always room for improvement, but my wife and I enjoyed the '80 version better than any Hamfest or holiday that we have ever attended.

Remember the November nomination of officers who are then elected in December. Drive safely so I may have a QSO with you.

Ralph, WA5PFK

\* \* \* \* \*

ESTATE SALE: W5IFB's large collection of parts, meters, test instruments, technical library, office machine, etc. Electrical and air conditioning gauges, tools and supplies. Call 525-6873 for appointment.

WANTED: Tubes, pair of 4-400A, PL 175 or 4-250. Gene Nailon, K5DLE, Business 681-2331 Home 341-8289.

FOR SALE: Slow Scan keyboard, works good, has grey scale and reverse black on white and white on black backgrounds. Phone 262-4872, El Reno Samuel Stephens, W5HZD.

Being as the C&E must go to press prior to our meeting this month there will not be any club news reported this month from the meeting, so instead we will comment on other areas. First of all I would like to thank Chuck (K5NK) for taking care of the C&E duties for me last month, but as far as owing you one I believe that we are now even as everyone will later agree.

CODE PRACTICE In the last issue of the C&E it was mentioned that there are several of our CW experts who are willing to take their time to give code practice for anyone interested. These people to contact again are; Chuck Wilhite, K5NK, 721-4926; Buddy Kidd, KA5AQY, 751-5094; Ron Recer, KE5M, 721-5378; or Frank McCollom, N5FM, 751-3577. I have been told that there was not enough response to the last article to shake a stick at, So, all this could mean is that either people did not see the last issue or maybe they do not care about getting their code speed up. It is very hard to believe that people interested in amateur radio are not willing to work even the smallest bit, to improve themselves. Guess this proves that if something is given to others it is not appreciated. Anyway anyone even remotely interested in improving there code speed give one of these fine folks a call on the land line.

OKDX It has been reported that there is a new club in town. This is not exactly true but it is not wrong either. The OKDX group has been busy monitoring 146.000 Mhz. This has been named the temporary frequency for OKDX. This is a clear frequency and we bother noone. The only interference here is by the folks in and around the OKC area running too much deviation on there 2 meter rigs and working into the Ol-61 machine in Calumet. This does not happen very often so generally the frequency is clear and can be monitored while working or listening for DX on the HF bands. There are quite a number of us that listen there day and night.

For the benifet of those that are not sure what I am talking about I will briefly touch on the subject. It was decided by a small number of amateurs in the OKC area that there are a number of us that our prime interest in HAM radio happens to fall in the area of DX. This area is a very large one but also is very demanding on the individual who decides he or she likes DX as a challenge. Everyone I am sure has heard of DXCC, the award issued by the "league", but not everyone may know that there are 319 countries on the current list. The idea is to work ALL of them not just 100 to receive a piece of paper. The whole idea behind OKDX is to give assistance to the people who do not yet have a large total of countries and hopefully allow some of the little mistakes not to be made by some of the "younger" DX'ers. After it was decided that such a group was needed then came the thought of how to relay information to one another, so two meters was picked since most all hams have two meter capability. Then the question of a frequency was taken up. Since there are a number of rigs that can not cover the 144-146 range and we did not want to interfere with any other repeater 146.00 was chosen. There are still a lot of folks that would like working DX if they just had a little more confidence in what they were doing in this area. If you fall into this area or if you just have a question about DX or the OKDX group please feel free to call either George- AD1S, 7226195; or Henry- N5IH, 7223848.

New Repeater??? It has been reported that there is talk of a new two meter repeater for the Oklahoma City area. Just what we need Right!!! Maybe- this possiable machine would be a local repeater only and would be for the benefit of those wishing to work HF DX. Could it be that OKDX might grow into something to be proud of like the Southern California DX Assn? Surely not in a place so backwards as Okla.

For Sale: SB220 Heathkit 2 Kw pep amp. used less than 10 hours.\$500.00  
contact Hobe Burgan WB5MLN, at 751-1646 or 755-3339. THIS IS A DANDY!!!

For Sale: Keyboard Keyer. Home Brew from Sept. '73 CQ mag. works great. Have \$60.00 in parts alone in it. Might consider trade on Heathkit HP 23 power supply.  
Contact Henry N5IH at 722-3848

FOR SALE: SWAN MB-40H two element 40 meter beam. call Henry 722-3848





SAGA The continuing saga of Henry versus the elements continues. As most know I lost yet another antenna system in a freak storm. This storm destroyed a very nice system and one I was proud of. These large monoband yagis will never be replaced. The tower was not damaged but there were other problems to make up for it. Have you ever wondered how you would go about removing 42 feet of mast that is extending above 76 feet of tower? Well now, just add to that the three monobanders that were hung onto this pipe. The entire mess bent at a 45 degree angle from verticle. Not only a messy sight but also one to scratch your head over. I have always heard that when you are unsure of something call on someone that knows for help, so that is just what I did. Guess what, they too walked around scratching their heads. But, thanks to George, AD1S, and a good friend of mine named Richard, who is not a ham, and the loan of a couple of hundred feet of hose for the cutting torch from John, WD5FXP, we were able to get all the twisted mess to the ground without any misfortune. Oh yes, there was one other person there and that being Chuck K5NK. He (Chuck) came equiped with his handy-dandy camera and lots of chuckles. He was allowed to watch as long as he wanted to, and this is why I am sure everyone will agree that Chuck you have been repaid! Back to the subject. Getting all that mess down was of course only the beginning. There was the problem of the insurance and also trying to replace the bent, broken, and twisted metal. As time cures all ails so goes the story of the antennas. At this time I have a system back on the air. Thanks again to the same people and some others. I would like to publicly thank the following people for their help: Ron - KE5M, Buddy - KA5AQY, Curtis - KJ5Q, Guy - K5GL, Jay - K5JL, Dave Burns, and oh yes, Mr. Chuck Kryder himself, N5SW. These fine folks not only helped to take down but also to put up. If I missed anyone please believe it was not on purpose. Soooo, again I say thanks to all. If anyone was wondering what is now over the skys in Canyon North it is the KLM tri-band Kt34xa and the Hy-Gain 402ba for forty meters, and they seem to be working out very well thanks to the tender loving care that went into them by all people involved. I guess I'll now see you in a pileup. Henry

DX For those folks who need stations in the Pacific stay tuned for good news. PAØGMM is on the path- will be a three band operation with a verticle antenna and a transceiver. The reported frequencies are 14.200, 21.300, and 28.600. He will be; :

FOØ Fr. Polynesia	Oct. 23 to 25
ZK1 NORTH Cook	Oct. 26 to 28
ZK2 Niue	Oct. 29 to Nov. 4
5W1 West Samoa	Nov. 5 only
3D2 Fiji	Nov. 6 to 11
A35 Tonga	Nov. 12 to 16
KH8Am. Samoa	Nov. 17 to 20

There are a lot of other DX peditions going on now so the best thing to do is tune onto 146.00 Mhz. and ask what's new! Some of them may be a once in a lifetime chance, suce as there is a chance for 5X now that will be fun.

QSL There has been recent talk weather or mot the CE9AH will count for South Shetland islands. If you have worked them I would get the card for sure, but unless it says on the card that the location is King George Island it may count only for Antarctica. That would be a real heartbreaker for the deserving. By the way, look for the CE9 on the PHO net every night at 0000 Hrs. Lists are taken for this one and it appears the only way to work them unless you want to try at 0730 to 1000 hours UTC. Look around 14.045 and 14.270.

Scoop-Scoop-Scoop Charles Wilhite (K5NK) has not only broken down and worked us locals on SSB, but it is a fact he is chasing DX also on SSB. He has gone so far as to purchase a remote VFO for his TR7 and reports have it that he, on several occasions, has been eying a linear amp. could it be that our resident CW expert may be our next applicant for DXCC Phone Only ????? Look for Chuck on the bands going AHHHHHHHHLO.

FOR SALE Lots of surplus radio equipment. Motorola, & GE low band, high band, and UHF, mobiles and Base. Duplexer, Heliac, power supplies, and etc. Call for further info: Henry N5IH 722-3848





NEW MEETING PLACE: We have been offered a new meeting place for the club by the Oklahoma City Fire Department, at their training facilities located on N. Portland. This is a beautiful place to hold club meetings, well located for most all members and easy to get to with out freeway system. We will plan to hold our November meeting at the new location and get feedback from members as to how they like it and if they wish to change on a permanent basis. The location is in the 900 block of N. Portland, immediately south of the Extension Center and O.S.U. Tech. There are two buildings, the first one nearest Portland being the training center for the police department, and the second one back being the one in which we will have our meeting. Tell everyone about this and let's have a good turnout for the November meeting so we can get your thinking. Don't forget, same time, but in a different location.

Chuck, K5NK

When C.O.R.A. was asked to assist the Oklahoma City Police Department during the Oklahoma State Fair, in helping provide security in the parking lots, Fred Taylor, KA5CXW, was asked if he would head up this undertaking. Fred is a great organizer, always willing to do what he can, and readily agreed to take on this responsibility. With the help of many volunteers who spent long hours patrolling the lots, this was a great success. Without Fred, it could not have worked. He took personal leave from his job to spend all his time at the fairgrounds. As the letter from Tom L. Heggy, Chief of Police, states, they were more than pleased with the job we did. All of C.O.R.A. owes Fred a great big THANKS.

Chuck Wilhite, K5NK

## THE OKLAHOMA CITY POLICE DEPARTMENT

701 COLCORD DR., OKLA. CITY, OK 73102

Tom L. Heggy, Chief of Police

September 29, 1980


Mr. Fred Taylor  
Central Oklahoma Radio  
Amateurs, Inc.  
915 N. W. 31st  
Oklahoma City, Oklahoma

Dear Mr. Taylor:

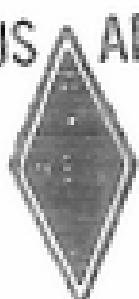
During the 1980 Oklahoma State Fair, members of the Central Oklahoma Radio Amateurs, Inc. volunteered their services to assist the Oklahoma City Police Department in patrolling the parking lots at the State Fair. This volunteer work by your organization involved many manhours and was instrumental in minimizing burglaries, assaults and vandalism which usually occur in the parking lots during the time of the Fair.

I would like to take this opportunity to express our appreciation to C.O.R.A. and to commend each member for a job well done. The professionalism and cooperation displayed by C.O.R.A. members made our enforcement tasks at the State Fair easier.

Sincerely yours,

  
Tom L. Heggy  
Chief of Police

November 1980



The Altus Area Amateur Radio Association held its monthly meeting at the North Main Fire Station, Thursday, October 9th.

In attendance were about a dozen members presided over by Loren, WA5CBF. There not being any formal business, the meeting was opened for general questions and discussion with Dwight giving a brief explanation of the upcoming SET. There was an attempt to pin him down on just what activity we might be looking forward to during the SET, but he could not, or would not be specific. Apparently it will be a sort of surprise for all of us, so don't go ignoring any "after midnight" phone calls.

Mike, W5VXU, indicated the status of the financial situation and also reported that there would, with luck, be about 20 new novices in this area in the near future. The class being taught by Major, KI5P, Mike and Tom, WA4RCS, is entering its final phases and completion of the course is expected sometime around the end of this month or the first week of November. Two persons have already passed their Morse code tests and are now awaiting the arrival of their written exams.

A question was raised on just what is needed to increase the interest and participation in Club activities as there seems to be a lack of these lately. Having agonized over this same problem for the past several years, there seemed to be no yeasy answer, but with the infusion of some of the new novices in the near future, there is hope that some new ideas will be forthcoming and that this in turn will help instill a measure of new enthusiasm.

These new novices, by the way, are going to need some basic starting equipment before too long, so if anyone out there has transmitting and/or receiving gear they might be willing to part with for a reasonable fee, please run your adds in this publication so that all those interested will become aware of what is available and we will make sure that all these new folks read this magazine.

The meeting broke up rather hurriedly with the PD monitor suddenly sounding an urgent alert and general recall of all off-duty police officers due to a shootout on the South side of the City. When all the excitement finally settled down it was revealed that an individual apparently decided to take a shot or two at one of the local officers, who in turn fired back. A rather exiting turn of events for our normally quiet town, but the officers did locate the individual and made their arrest some hours later, without injury to anyone. The individual's car however took the worst of it with four bullet holes making it rather easy to identify.

Last month (October 7) when I attended the MORI meeting, we had election of officers for the 1981 term, so I just wanted to take this opportunity to extend my "Congradulations" to each of them.

Fred Taylor	KA5CXW	President
Frank Arnold	W5PDH	Vice President
Sid Gerber	W5KOZ	Treasurer

I was also elected into the office of Secretary. I am really looking forward to working with these men and the members of the club. It will be a very rewarding and gratifying experience for me due to the fact this will be my first time to serve in any of the clubs, and I promise to do my very best, and if I am able to assist anyone, please do not hesitate to let me know. I might add the following comment, and this will be the second time for "Fred-KA5CXW" to serve as President, due to either "People's Choice" or "Popular Demand".... (Great work, Fred) Also one more thing, and that is great big hearty thanks to Bob White, WB5PWZ (Vice President) Jim Jones, K5PER (Treasurer) and Jim Buswell, N5BEQ (Secretary) for all of their participation and best efforts during the last term. (Fine Business, fellas)



It was a dark and stormy night. Ashot rang out, Amaid screamed! To all of this I was oblivious, deep in reading QST, namely an article on A dx-pedition to Hell. Hell, Michigan, that is. They reasoned that an Amateur station operating from such a location would stir up some interest on the bands and be fun besides! I mentioned this on the 07/67 repeater and the unusual location of the U.S.S. Batfish was suggested by Ladd, W5FX. This is, I think, one of the most unusual spots in all of Oklahoma and thus following Ladd's advice, I contacted the manager of the submarine and was given permission to operate therefrom.

A date was picked and soon discarded due to a conflict with the Sweepstakes. The last and final date for the DX-pedition is Nov. 7-11, times to be from late Friday to late Tuesday.

We are now in need of operators for the event, your choice of band and mode. We will have gear for cw and ssb, any special modes of operation (sstv, rtty) will be welcome, however, the operator must supply any special equipment needed.

If you wish to have a time set aside for you, please call me at my home ph. 733-3042 after 5pm. If you cannot call after 5, call before and my wife can take a message. A time need not be set aside for operation, as any ham may drop by at almost any time and operate. I'm not sure if the hours of operation will include the night hours, so further developments will be put out on the 07/67 repeater regarding this and other developments, too.

At this time, rigs are in short supply, so if anyone has a spare rig, antennas or swr&matching networks, the use of such will be greatly appreciated.

Also, this is not going to be an event just for contest operators, as I'm hoping to keep it low key, in other words, the person operating will do as he wishes regarding speed of operation. I myself will use a "ragchew" type of operation when I start my time.

There are in the area a few good restaurants, campgrounds, and various, sundry items of local interest, such as the Five Civilized Tribes Museum, and "Antiques, Inc," a place where they have, on display, antique American and foreign automobiles. So if you get bored with the radio, you can go sightsee! Maps will be available soon. They should be available in about a week or so; to get one send ans.a.s.e. to me at 1401 N. Midwest Blvd Midwest City, OK 73110, or ask at the local tourism bureau.

The frequencies of operation are as follows; Novices: 3737, 7130, 21160, 28125; General CW; 3660, 7050, 14175, 21075, 28200; General PH; 3990, 7243, 14300, 21400, 29000. The call that will be used will be the M.O.R.I. club call, WA5YTI, class is Advanced. Frequencies are +/- 5khz, due to any noise.

Once again, rigs and antennas are needed, as are operators. Also, I notice I left something out of this article, namely the fact that the submarine is located in Muskogee, OK. Sorry for the oversight.

One last item: I plan to QSL 100%, QSL cards cost money. Therefore I am asking for help from all interested Amateurs in this matter. I will print in the C&E a final report detailing all matters such as relative success, number of stations contacted, unusual happenings, acknowledge all those who helped with rigs, antennas, mics and keys, swr and matching devices, etc.

Also to be included is a financial statement detailing what went for what and when. I will give any money left from donations to a charitable organization and will let it be known which one it was. I hope I haven't spoiled the article by asking for money, but funds ARE needed.

Remember Nov 7-11, and please drop by and see us, and please drop by & operate!...

73 Jim Smith II N8AVX



Club  
NEWS

PILOT  
The Club's Official Newsletter

EDITOR: Joe Buswell, K5JB 732-0676

### MINUTES OF OCTOBER MEETING

MEETING WAS CALLED TO ORDER AT 8:05 PM BY PRESIDENT JIM, K5VRL, WITH 16 MEMBERS AND GUESTS PRESENT.

ELLARD, W5KE, GAVE TREASURER'S REPORT.

BOB, W5HXL, GAVE CORA MEETING REPORT. HE ALSO REPORTED THAT A RAID ON THE AERONAUTICAL CENTER ARC AUCTION BY HIMSELF, WA5JGU, WB5ZKZ AND K5VRL, NETTED A HAM-M ROTOR. DONATIONS WERE SOLICITED TO SPREAD OUT THE EXPENSE OF OBTAINING THE ROTOR FOR THE CLUB STATION.

SIMULATED EMERGENCY TEST WAS MENTIONED AS A REMINDER THAT IT WAS GOING TO HAPPEN SOMETIME THIS WEEKEND.

JIM, K5VRL, ANNOUNCED THAT THE WHEATSTRAW MEETING WOULD BE HELD NOV. 2 AT 1:30 PM AT CINDERS RESRAURANT ON NORTHWEST HIGHWAY. AFTERWARDS, A TOUR THROUGH PROFESSIONAL COMM DATA, A COMPUTER COMPANY IN THE QUAIL CREEK BUILDING ON QUAIL CREEK ROAD. NOW IS OUR CHANCE TO SEE SOME COMPUTERS IN ACTION.

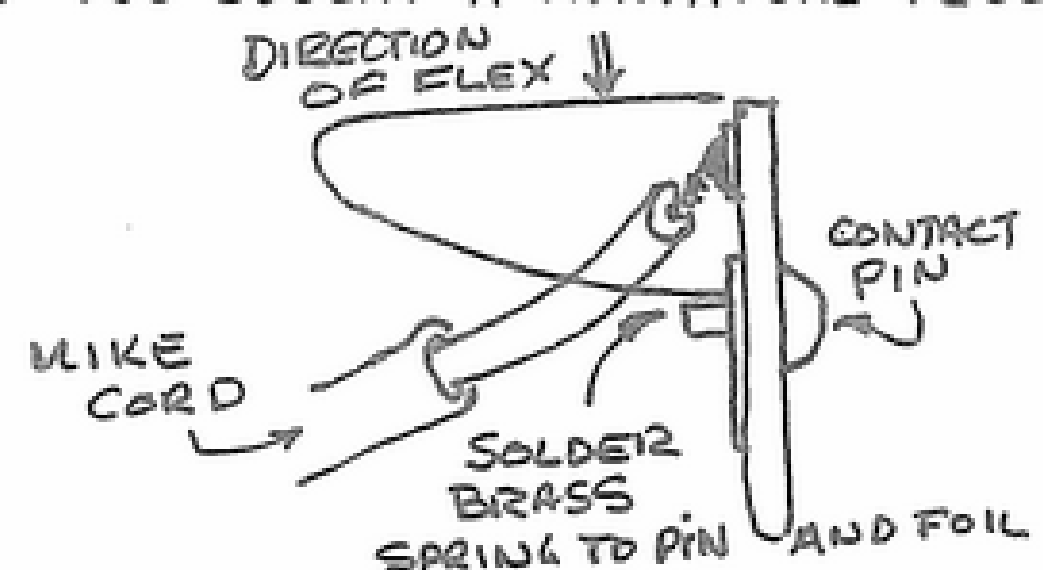
OKLAHOMA CENTRAL VHF CLUB WINDOW DECALS WERE DISTRIBUTED AND THE MEETING WAS AJOURNED AT 8:28 PM. JOE, K5JB, SECRETARY

### A MITE OF A MIKE - A CUTE MICROPHONE FOR A CUTE RADIO - ICOM IC-2A

HERE ARE STEP BY STEP INSTRUCTIONS ON HOW TO MODIFY A RADIO SHACK TIE CLIP MIKE, CAT. NO. 33-1058, TO WORK ON AN IC-2A WALKIE TALKIE. THIS MIKE IS A CONDENSOR TYPE WHICH NORMALLY RUNS ON A MERCURY CELL, COSTS \$9.95 PLUS TAX, AND IS 9/16 INCH DIAMETER BY 1 1/2 INCH LONG. THE MODIFICATION INCLUDES ADDING A PUSH-TO-TALK BUTTON AND ELIMINATING THE NEED FOR THE BATTERY. STEPS FOLLOW:

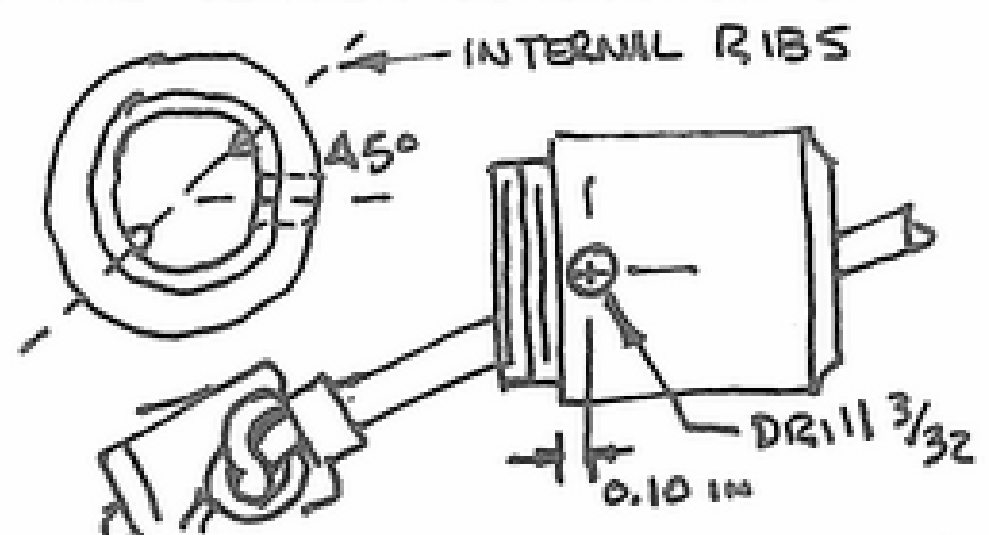
1. INSTALL A NEW PLUG AFTER CUTTING SOME OF THE SIX FEET OF CORD OFF. THE CORD ONLY NEEDS TO REACH FROM YOUR BELT TO YOUR MOUTH. THE RADIO NEEDS A SUB-MINIATURE PLUG. IF YOU BOUGHT A MINIATURE PLUG SAVE IT FOR THE EARPHONE.

2. UNSCREW THE CASE AND LIFT OUT THE INTERNALS FROM THE CASE SECTION CONTAINING THE CORD. REMOVE THE RESISTOR AND CAPACITOR. NOTE THAT THE SHIELDED CORD IS SOLDERED TO A FOIL ON THE CIRCUIT BOARD CONTAINING THE BATTERY CONTACT.



3. BEND A .6 X .1 X .010 INCH BRASS SHIM STOCK, OR A PIECE OF STIFF WIRE, LIKE THE ILLUSTRATION ABOVE. SOLDER ONE END TO THE CONTACT AND ITS FOIL. BEND THE OTHER END SO WHEN IT IS FLEXED, AS SHOWN, IT WILL TOUCH THE CENTER CONDUCTOR OF THE SHIELDED CORD.

4. DRILL A 3/32 HOLE IN THE SHELL LIKE SHOWN ON THE RIGHT. START BY BREAKING THROUGH THE FLASH PLATING ON THE PLASTIC HOUSING WITH THE POINT OF A KNIFE. HOLE CAN BE DRILLED BY TWISTING BIT BY HAND.



5. FIND A PLASTIC ROD, OR TUBE, THAT WILL FIT LOOSELY IN HOLE. A PIECE OF TUBE FROM AEROSOL CAN OF WD-40 OR CONTACT CLEANER WILL WORK FINE.

6. HEAT END OF ROD, OR TUBE, WITH A MATCH AND MASH AGAINST A FLAT SURFACE FORMING A HEAD. DONT CUT TUBE YET.

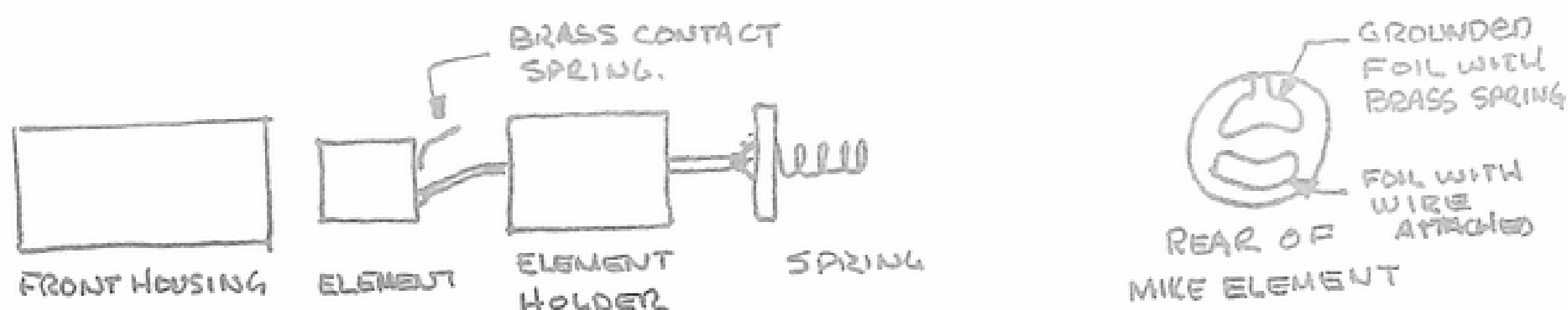
7. INSERT THE TUBE, IN THE HOLE PREVIOUSLY DRILLED, FROM INSIDE WITH THE FORMED HEAD ON THE INSIDE. IF THE FORMED HEAD STICKS UP TOO MUCH TO ALLOW RE-INSTALLATION OF THE INTERNALS, REDO THE HEAD FORMING PROCESS.

8. INSTALL THE WORKS IN THE CASE WITH THE BRASS CONTACT STRIP ALIGNED WITH THE BUTTON.

9. CUT OFF ROD, OR TUBE,  $1/8$  INCH FROM SURFACE OF CASE. HEAT WITH MATCH AND MASH AGAINST FLAT SURFACE BUT DON'T OVERDO IT. IT HAS TO MOVE FAR ENOUGH TO FLEX BRASS SPRING.

10. BEND THE SPRING, IF NECESSARY, TO PREVENT SHORTING WITH CASE. CHECK WITH OHMMETER BETWEEN BATTERY CONTACT AND CASE. CHECK OPERATION OF PTT SWITCH WITH OHMMETER. WHEN DEPRESSED, THERE SHOULD BE CONTINUITY BETWEEN PLUG CENTER CONDUCTOR AND CONTACT PIN. WHEN RELEASED, THERE SHOULD BE OPEN CIRCUIT.

11. REMOVE MICROPHONE ELEMENT, HOLDER AND SPRING FROM OTHER CASE HALF. USE HEMOSTAT OR TWO HOOKED WIRES TO GRASP AND EXTRACT PARTS.



12. UNSOLDER AND EXCHANGE POSITIONS OF GROUNDING CONTACT AND WIRE AND RESOLDER.

13. PUT ONE LAYER OF PAPER OR PLASTIC TAPE OVER MIKE ELEMENT, SLIGHTLY LAPPING OVER FRONT EDGE TO PREVENT SHORT CIRCUIT TO CASE. SEE SKETCH TO SEE WHY THIS IS NECESSARY.

14. STRETCH SPRING OUT TO ABOUT  $.4$  INCH AND CRUSH THE FIRST TURN SLIGHTLY. REINSTALL PARTS IN HOUSING WITH GROUNDING SPRING ALIGNED WITH AN INTERNAL RIB. MINE HAD A BARE SPOT IN THE PLATING WHERE COPPER FLASH WAS SHOWING. SPRING MAKES CONTACT WITH THIS FLASH.

15. CHECK THAT THE COIL SPRING WILL CONTACT THE BATTERY CONTACT AND SCREW THE HOUSING TOGETHER. TEST WITH AN OHMMETER. WITH POSITIVE LEAD OF OHMMETER ON PLUG TIP, AND NEGATIVE LEAD ON SHIELD, TEST SHOULD SHOW OPEN CIRCUIT UNTIL PTT BUTTON IS DEPRESSED. WHEN THE BUTTON IS DEPRESSED, THE OHMMETER, IF SET ON THE  $\times 1000$  SCALE, WILL SHOW ABOUT  $10K$ .

16. PLUG IT IN AND TRY IT. IT WILL HAVE TO BE CLOSE TALKED. IF YOU BLOW DIRECTLY INTO THE MIKE, THE RIG WILL UNKEY, IF IT IS LIKE MINE. DON'T DO THAT.

FOR A SIMPLER MOD, THE BATTERY CIRCUIT CAN REMAIN INTACT BUT A RESISTOR HAS TO BE CRAMMED INTO THE CASE HALF CONTAINING THE PTT SWITCH. THE PTT BUTTON IS MADE AND INSTALLED THE SAME WAY BUT THE BRASS SPRING IS FORMED DIFFERENTLY. ONE END IS SOLDERED TO THE PART TO WHICH THE CORD SHIELD IS SOLDERED. THE OTHER END IS ARRANGED TO TIES TO A FLOATING END OF A RESISTOR. THE RESISTOR, A  $27K$ ,  $1/4$  WATT, IS SOLDERED TO THE FOIL HOLDING THE SHIELDED CORD'S CENTER CONDUCTOR. THE OTHER LEAD IS SLEEVED AND BENT ALONG SIDE THE RESISTOR AND POSITIONED UNDER THE BRASS SPRING. FOAM RUBBER CAN BE CUT INTO A WASHER AND PLACED ON THE POSITIVE CONTACT OF THE BATTERY SO CONTACT CAN BE BROKEN BY UNSCREWING THE CASE ABOUT A TURN. THIS WILL PREVENT DISCHARGE OF THE BATTERY WHEN THE MIKE IS NOT BEING USED.

NOW YOU DON'T HAVE TO TALK INTO YOUR COAT POCKET. JOE, K5JB

See individual club sections for times, places & details.

NOVEMBER HAM HAPPENINGS '80						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
WHEATSTRAW: "CINDERS" 2	EDMOND CLUB 3 TRI-CITY	MORI 4 Great Plains	5	6	ACARC 7	flea mkt. 8
9	CHOCTAW 10 USAF MARS	76ers, Shawnee, 11 OU	12	Altus, ATV 13	14	SCARS 15
EARS 16	17	OCAPA 18	19	Kay County 20	VHF 21	EDIT C+E 22
23 30	24	CORA Shawnee 25	26	27	28	EARS, CHOCTAW, SHAWNEE 29 mail C+E

Can you wear

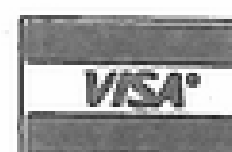
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If the signs are right, we'll place soft contact lenses on your eyes and make a further evaluation. Bring your written prescription if you wish. Patient normally gets lenses IMMEDIATELY!

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NO APPOINTMENT NECESSARY

Ask Doc, WA5CZN, about his fantastic contacts!