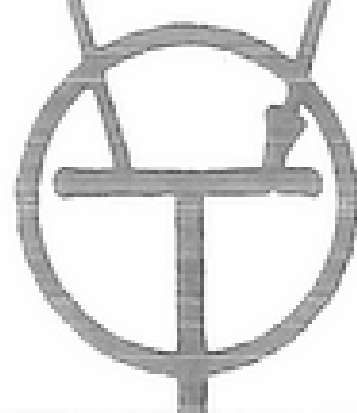


Central Oklahoma Radio Amateurs

COLLECTOR AND EMITTER

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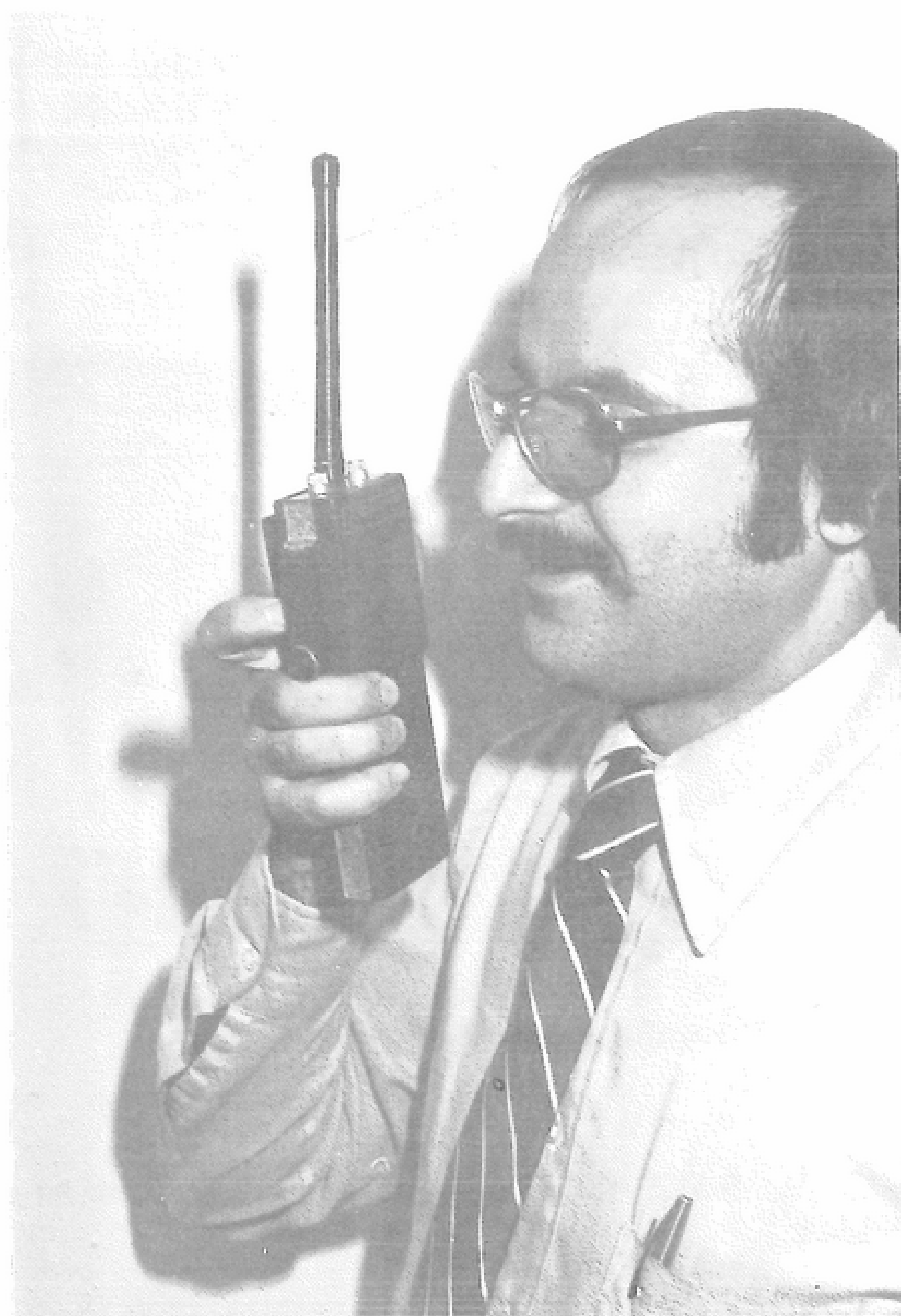
AN INFORMATIVE MAGAZINE
PUBLISHED MONTHLY BY AND
FOR OKLAHOMA RADIO
AMATEURS

AND ANYONE INTERESTED IN
LEARNING ABOUT IT

Volume 7

FEBRUARY 1981

Number 73



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ARTICLE: THE N5MS DRINK-A-TALKIE! SEE P. 26

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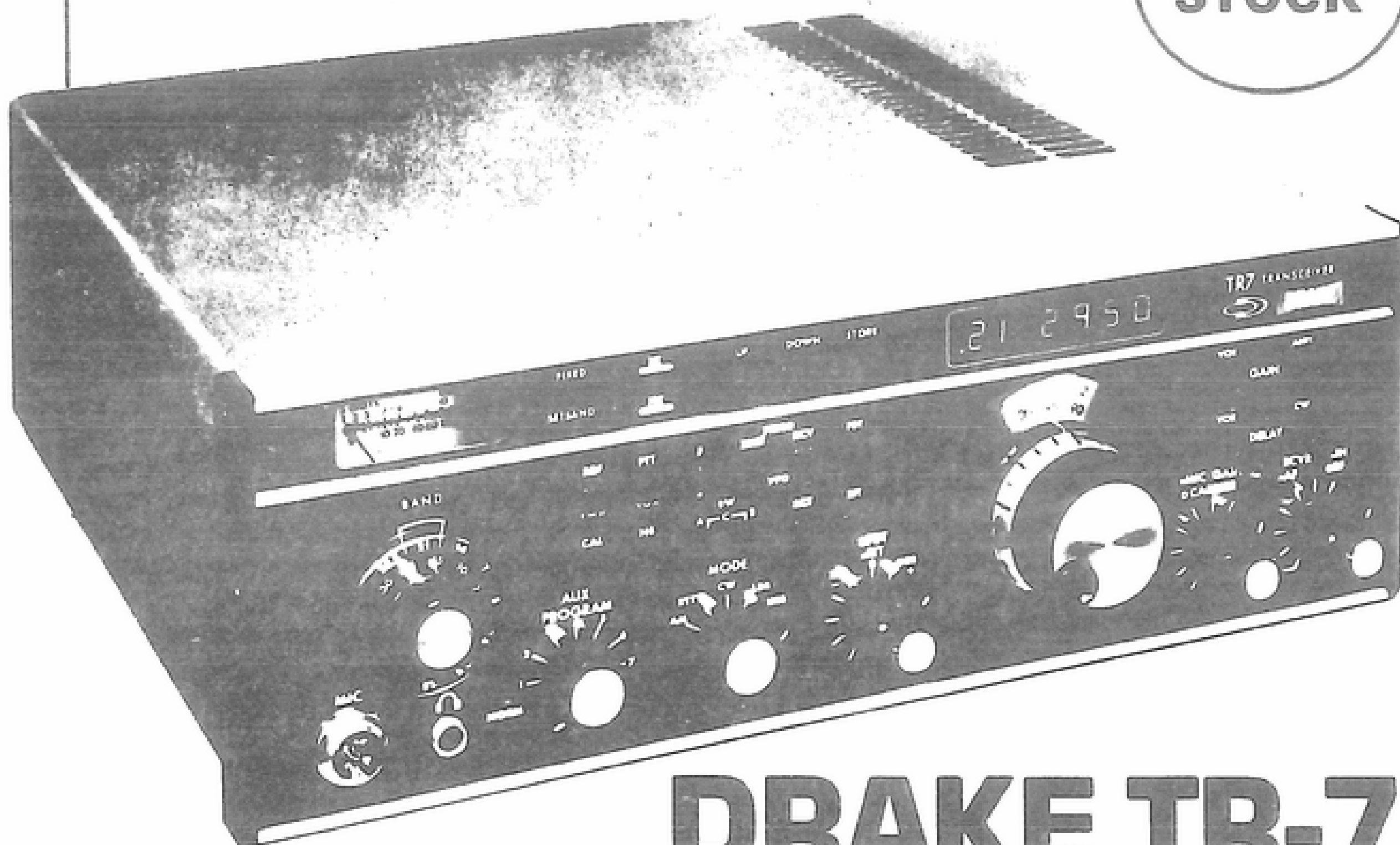
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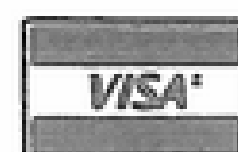
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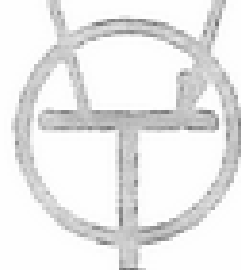
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Central Oklahoma Radio Amateurs

COLLECTOR AND EMITTER



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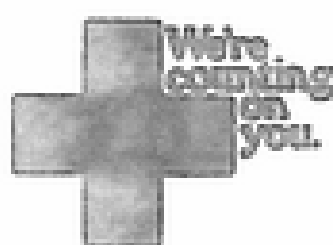
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Central Oklahoma Radio Amateurs, Inc. (CORA) is a not-for-profit association of radio amateurs, founded for the promotion of interest in amateur radio communication and experimentation, for the advancement of the radio art and of the public welfare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

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7 BICENTENIAL ARC (THE 76'ERS) MEETS: 7:00 PM 2nd Tuesday each month Air National Guard, Will Rogers Apt. Pr KB5BS Bill Skipper 495-6946 VP W5AUB Jerry Sproul 354-2061 Se W5BEQ Jim Buswell 236-0368 Tr WD5BMP Joe Couch (Guthrie) 282-4353 Ed W5OK Coy Day	9 WHEATSTRAW AMATEUR RADIO CLUB MEETS: 2:30 PM First Sunday of month Location Varies. See club section Pr WB5JNT Ted Vanlangham 262-1675 VP AB5Z Ray Barnes S/T W5PPK Ralph Wilder 623-5421 Ed WB5MTH Virginia Beneda 825-3302	10 CHOCTAW AMATEUR RADIO CLUB MEETS: 7:00 PM 2nd Monday, Choctaw City Hall. Pr WD5EVP Bob Allen VP AB5H Frank Carter 391-8297 Tr KASALO Richard Edwards 390-8297 Se W5BEP Syrena Standlee 279-3975 Ed W5BEP Syrena Standlee 279-3975
11 EDMOND AMATEUR RADIO SOCIETY MEETS: 2:00 PM 3rd Sunday, Room 205 Science Bldg. Central State Univ. Pr WD5HKK Ken Stepp VP KB5RR Clarence Dollmeyer S/T W5ERY Allen Watson Ad WD5FHR Dee Hize Ed KB5RR Clarence Dollmeyer	12 SHAWNEE AMATEUR RADIO CLUB MEETS: 8:00 PM 2nd & 4th Tuesday Shawnee City Hall - EOC Pr K5LPZ Bob Almand 598-5148 VP KASFIT Walter Fultz 598-3984 S/T KASPBC Jim Sullivan 273-3843 Ed WD5BUQ Jay Tingler 273-3033	13 KAY COUNTY AMATEUR RADIO CLUB MEETS: 7:30 PM 3rd Thursday of month Security Bank Basement, Ponca City Pr WB6N8K Steve Scott 765-7408 VP WB55AG Grady Skillern 765-3411 S/T Cosby Clarke 765-3105 Ed Steve Scott
14 CORA meets the fourth Tuesday of each month. 7:30 P.M. at American Red Cross Use back door, 10th & Hudson, Oklahoma City	15 SOUTH CANADIAN AMATEUR RADIO SOCIETY MEETS: 9:30 AM 3rd Saturday each month Red Cross Bldg., North Campus Norman Pr KB5EK Wade Anderson 794-5144 VP KASGFL Charles Warner 364-9561 Se W5RPP Sam Barrett 321-6297 Tr W5HMT H. O. Townsend 329-4426 Ed WB5T22 Jack Bickham 329-1311	16 EDMOND AMATEUR RADIO CLUB MEETS: 7:45 PM First Monday of month Pr K5GBF Harold Plunk VP W5B8QX Bob Shaw S/T WB5UIY Stan Van Nort Ed WB5UIY Stan Van Nort
17 TRI-CITY AMATEUR RADIO CLUB MEETS: 7:30 PM First Monday of month. Location varies, see club section. Pr WB5TFX Ben Gard 379-3112 VP WB5VPM Carl Cash 257-2243 S/T KASFD Nancy Hayden 379-6448 Ed KASFD Nancy Hayden 379-6448	18 GREAT PLAINS AMATEUR RADIO CLUB MEETS: 7:30 PM 1st Tuesday each month Woodward Court House basement. Pr WB5OYT Rod Ford VP WD5DFH Bill Reid Se WD5DFG Donna Reid Tr KASFKV Gerald Bowman Ed W4ZSL Wes Duer	19 SOUTHEAST OKLA AMATEUR RADIO ASSN. Pr WB5TTV Ron Hanson 326-5418 VP WB5ULI George Meldon 326-5672 S/T WD5FUE Orville Kaley 326-3640



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WHEATSTRAW ARC (R)
01-61

Editor: Ted WD5JNT 262-1675

The Wheatstraw Club met on the first Sunday of the new Year at the Okache High School. We must thank George K5GGL for the meeting place and thinking to have the janitor turn on the heat early. I understand the heat had been turned down for the Christmas holidays.

Our new President, Ray AB5Z seemed to take the awesome power of his new office with a strong hand and got us through the bussiness of the day in great style?

A committee chairman for the "Ham Holiday 81" programs committee was quickly railroaded into position with the usual whistle. Yours truly WD5JNT will be happy to listen to any ideas on the subject. If anyone has an idea that they would like to see at the convention you can find me, give the thought to your CORA representative or join the Wheastraw Club net held each Wednesday evening at 8:30 on the 01-61 repeater. Sorry the Dallas Cheerleaders have already checked out. They are all booked up, but it was a thought.

We also voted to revive the Traveling Trophy that has been sort of dormant the past few years. Back in 1973 the club started a traveling trophy for the top field day score on VHF contacts. Any group within Oklahoma was eligible to claim the prize for one year by submitting their field day score to the designated committee for judging. There were very few scores turned in and for the first 2 years the Wheatstraw easily kept it. In 1975 we declared ourselves ineligible, that year it was won by CORA. It has been dormant since. The number of scores turned in just did not warrant continuing at the time. There is much more activity now on 2 meters and other vhf and uhf bands. It is hoped that a new home can be found after this field day weekend. Last year we only made 115 contacts on 2 meters. Who can top that this year?

The rules are simple. You will have to operate within the state and be above 50.000 mhz. Send us the field day eligible contacts for scoring and you will be presented the awesome trophy for 1 year, or until it is won by another group. Win it 3 years and it is yours.

Everyone is invited to our next monthly meeting, February 1 at the fine community of Kingfisher. We will meet at the People's National Bank at 2:30. Haven't heard much about the program, but I am sure the gang up there will come up with something. There is always plenty of refreshments.

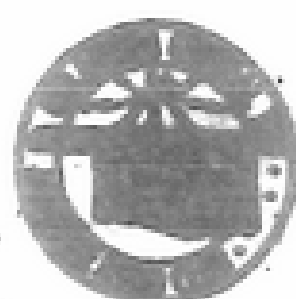
Ted WD5JNT

76^{ERS} FEBRUARY PROGRAM

ASCII is the subject of our February program. Computers have several jobs in amateur radio, and maybe the cost and complexity are not forbidding. Jerry, N5AUH is a member of a local computer gang. He and his gang are going to give us some ASCII and other computer information and, hopefully there will be a demonstration. After the program, if you still have questions about ASCII, just ASKEE.

March program. Not definite yet, but I would like to continue to promote our local talent in technical and other aspects of amateur radio. Seven three and Eight eight, your activities chairman,
Bill, WA5RAQ

=====



Club
NEWS

VOLUME
The VHF Club Newsletter

EDITOR: Joe Buswell, K5JB 732-0676

MINUTES OF JANUARY MEETING

MEETING WAS CALLED TO ORDER AT 8:02 BY PRESIDENT JIM, K5VRL WITH SEVENTEEN MEMBERS AND GUESTS PRESENT. ELLARD GAVE TREASURER'S REPORT AND IT WAS THEN DECIDED IT WAS OKAY TO HAVE ANNUAL ELECTIONS.

NOMINATING COMMITTEE RECOMMENDATIONS WERE PRESENTED BY BOB, W5HXL. FROM ITS RECOMMENDATIONS AND NOMINATIONS FROM THE FLOOR, THE FOLLOWING WERE ELECTED:

RALPH BARTOW, WD5IRB, PRESIDENT
BILL NOLAND, WA5FWD, VICE PRESIDENT
JOE BUSWELL, K5JB, SECRETARY
ELLARD FOSTER, W5KE, TREASURER
JERRY WETMORE, KA5DCM, DIRECTOR
JIM WILLIAMS, K5VRL, DIRECTOR
CHARLIE GREENE, WA5JGU, DIRECTOR

CARRYOVER BOARD OF DIRECTOR MEMBERS ARE BOB ASHBY, W5HXL, AND JACK MUSE, WB5ZKZ.

AFTER BEING CONGRATULATED FOR A JOB WELL DONE, OUTGOING PRESIDENT JIM, K5VRL, ANNOUNCED THAT THE SIMULATED BLIZZARD EMERGENCY SCHEDULED FOR THE NEXT DAY HAD BEEN CANCELED BECAUSE OF SNOW FLURRIES.

TOM, W5OZE, ANNOUNCED SCHEDULED CONTACTS PLANNED FOR STEVE, W5CEP, WHO IS IN THE PHILLIPINES.

CHARLIE, WA5JGU, READ A LETTER FROM JACK MUSE, WB5ZKZ, DISASTER DIRECTOR, AMERICAN RED CROSS, DESCRIBING EQUIPMENT OBTAINED BY THE RED CROSS FOR USE IN THE CLUB STATION. THE LIST INCLUDED: KENWOOD TS-130 HF TRANSCEIVER, PS-30 POWER SUPPLY, DENTRON JR ANTENNA TUNER, ICOM 255 2M FM TRANSCEIVER, KPS-7 8 AMP POWER SUPPLY, HENRY 1KD-5 HF AMPLIFIER, 150 FEET RG-8, 150 FEET ROTOR CABLE FOR HAM II ROTOR, FOUR SETS OF HEADPHONES, AND AN AUTOMATIC AUTOMOBILE BATTERY CHARGER. THIS EQUIPMENT WILL BE USED IN ADDITION TO MOST OF THE WORKHORSE EQUIPMENT ALREADY INSTALLED AND OWNED BY THE CLUB. THIS ADDITION IS CERTAINLY WELCOMED AND WILL ENHANCE AMATEUR RADIO OPERATION OF THE STATION.

AN ANTENNA AND STATION WORK PARTY WAS PLANNED WITH K5VRL AND KA5DCM AS CO-CHAIRMAN OF THE REFURBISHMENT.

BASED ON AN ARRL OPINION THAT IT WAS NOT CLEARLY LEGAL, IT WAS MOVED AND PASSED THAT THE VHF CLUB NOT SUPPORT HEALTH FAIR 1981 WITH AMATEUR RADIO COMMUNICATIONS.

MEETING WAS AJOURNED AT APPROXIMATELY 9:00 PM FOR REFRESHMENTS.
JOE, K5JB, SECRETARY

MICROPHONE MEDDLING

IT USED TO BE THAT THE MINIMUM EFFORT HOMEBREW PROJECT AROUND MY HOUSE WAS BUILDING A TELEGRAPH KEYSER OR LINEAR AMPLIFIER, BUT, AS I AGE, MY LEVEL OF EFFORT DIMINISHES. THE LAST FEW WEEKS IT HAS DIMINISHED TO THE LEVEL OF WORKING ON MICROPHONES AND SWAPPING DIFFERENT TYPES OF MICROPHONE FROM RIG-TO-RIG. THE NOVEMBER '80 ISSUE OF C&E CONTAINED THE FIRST PROJECT WHICH CONSISTED OF MODIFYING A RADIO SHACK TIE CLIP MIKE TO MAKE IT WORK ON THE ICOM WALKIE TALKIE. SINCE THAT TIME, I HAVE EXPERIMENTED WITH SEVERAL MICROPHONES AND RESEARCHED OLD NOTES TO VARIOUS METHODS OF INTERFACING MICROPHONES WITH VARIOUS RIGS.

FOR THE PURPOSE OF GETTING SOME ORDER IN THIS STORY, I HAVE CLASSIFIED MICROPHONES IN COMMON USE INTO THE FOLLOWING CIRCUIT TYPES:

1. CARBON MICROPHONE CIRCUIT. DON'T LAUGH, THEY'RE STILL IN USE IN TELEPHONES AND BOEING 747'S. MY IC-720 MIKE INPUT RESPONDS WELL TO A CARBON MICROPHONE. THESE CIRCUITS HAVE A CURRENT SOURCE FOR THE MICROPHONE TO MODULATE. THE MIKE CANNOT GENERATE A SIGNAL ON ITS OWN BUT ACTS LIKE A RESISTOR WHICH VARIES AT AN AUDIO RATE. THE CURRENT IS FAIRLY HIGH AND VOLTAGE FAIRLY LOW, THUS THE IMPEDANCE LEVELS ARE LOW. TYPICAL CARBON MICROPHONE, OR ITS ELECTRONIC EQUIVALENT, HAS 50-150 OHMS IMPEDANCE. ADVANTAGE OF SUCH LOW IMPEDANCE IS THAT STRAY HUM AND RF PICK-UP ARE LOW.
2. MAGNETIC, OR DYNAMIC, MICROPHONES NORMALLY HAVE MEDIUM LEVEL IMPEDANCE OF AROUND 500 OHMS. EXTREME CASES CAN BE FOUND WHERE IMPEDANCE MIGHT BE AS LOW AS 8 OHMS, OR WITH THE HELP OF A TRANSFORMER, AS HIGH AS 50K OHMS. AUDIO VOLTAGE IS GENERATED BY A COIL VIBRATING IN A MAGNETIC FIELD. THERE IS DC CONTINUITY THROUGH A MAGNETIC MICROPHONE AND A CLICK CAN BE HEARD IF ITS OUTPUT TERMINALS ARE TOUCHED WITH LEADS OF AN OHMMETER. SINCE IMPEDANCE IS NOT VERY HIGH, DYNAMIC MICROPHONES ARE NOT PARTICULARLY SENSITIVE TO RF OR HUM PICK-UP.
3. CRYSTAL AND CERAMIC MICROPHONES ARE HIGH IMPEDANCE TYPES HAVING IMPEDANCE LEVELS OF 10K TO 100K. THEY WORK ON PRINCIPLE OF PIEZO-ELECTRICITY, MEANING THAT WHEN THE CRYSTAL ELEMENT IS FLEXED, IT GENERATES A VOLTAGE. WHEN LIGHTLY LOADED, THE VOLTAGE OUTPUT IS HIGHER THAN A TYPICAL DYNAMIC MICROPHONE. THERE IS NO DC CONTINUITY AND A DC BIAS SHOULD NOT BE APPLIED TO THE ELEMENT. MANY MICROPHONES SHORT CIRCUIT THE ELEMENT WHEN THE PUSH-TO-TALK SWITCH IS RELEASED TO PREVENT DAMAGING VOLTAGES FROM HARMING IT. THE RISK CAN'T BE TOO GREAT BECAUSE I HAVE HAD ONE FOR 15 YEARS, HOOKED TO ALL KINDS OF CIRCUITS AND IT WORKS AS GOOD AS THE DAY I GOT IT. SHIELDING IS MORE CRITICAL BECAUSE STRAY FIELDS CAN INDUCE PROBLEM VOLTAGES IN THE HIGH IMPEDANCE CIRCUIT.
4. CONDENSER, INCLUDING ELECTRET, MICROPHONES CONTAIN HIGH IMPEDANCE ELEMENTS WHICH ARE CHARGED WITH A SMALL VOLTAGE BUT ALMOST ALWAYS CONTAIN INTEGRAL AMPLIFIERS WHICH PERFORM IMPEDANCE TRANSFORMATION DOWN TO 500 TO 2000 OHMS. VOLTAGE CAN EITHER BE SUPPLIED TO THE MICROPHONE FROM THE EQUIPMENT OR FROM A SMALL BATTERY IN THE MICROPHONE. THE ADVANTAGE OF THIS DESIGN IS LOW HUM PICK-UP, IF THE ELEMENT AND PREAMPLIFIER IS SUITABLY SHIELDED, AND HIGH SENSITIVITY.

THESE FOUR TYPES OF MICROPHONES CAN BE ADAPTED TO ANY RIG WITH SUITABLE INTERFACING. THE MOST COMMON PROBLEM IS MIXING/MATCHING MEDIUM AND HIGH IMPEDANCE CIRCUITS AND USING NEW ELECTRET ELEMENTS ON EITHER. WHAT FOLLOWS IS RESULT OF SOME EXPERIMENTS I HAVE CONDUCTED USING ACTIVE DEVICES RATHER THAN TRANSFORMERS TO PERFORM IMPEDANCE MATCHING THEREBY ALLOWING SOME LATITUDE IN LEVEL ADJUSTMENT ALSO.

WITH THE FOUR TYPES OF CIRCUITS SHOWN, THERE ARE 12 POSSIBLE COMBINATIONS OF MIXING MIKES WITH CIRCUITS THAT REQUIRE SOME ALTERATION TO MAKE THE SWAP WORK. RATHER THAN COVER ALL TWELVE, WHICH I AM A BIT TOO LAZY TO DO, WE CAN DISCUSS FIVE COMBINATIONS AND COVER THE MOST LIKELY TO OCCUR, AND INCIDENTALLY, THE ONLY ONES I HAVE DONE, OR WOULD BE LIKELY TO DO.

THE FIRST COMBINATION IS ADAPTATION OF A DYNAMIC MIKE TO A RIG WITH A CARBON MIKE CIRCUIT. THIS IS UNLIKELY TO OCCUR OFTEN BUT IF A COMMERCIAL TRANSMITTER STRIP IS TO BE USED FOR 6M, 2M OR 67CM, AND THE PROPER TRANSISTORIZED MICROPHONE IS NOT AVAILABLE, A CARBON MIKE TYPE CIRCUIT WILL HAVE TO BE DEALT WITH. THIS SAME TYPE CIRCUIT IS FOUND IN AIRCRAFT, AND, BELIEVE IT OR NOT, IN THE IC-720, HF RIG.

FIGURE 1, NEXT PAGE, SHOWS A CIRCUIT USED BY MOTOROLA TO MATCH A DYNAMIC ELEMENT TO A CARBON MIKE TYPE CIRCUIT. IT IS AN EMITTER FOLLOWER AND THE TRANSISTOR COULD BE AN NPN WITH CHANGE OF POLARITY OF

THE VOLTAGES ON THE TERMINALS AND THE 20 UF CAPACITOR.

IN ONE TYPICAL APPLICATION, A CONVERT-ACOM CONSOLE, THE MICROPHONE IS SUPPLIED WITH 11.4 VOLTS SUPPLIED THROUGH A 1.5K RESISTOR. THE MIKE DRAWS ABOUT 4.5 MA. THE BASE CURRENT THROUGH THE TRANSISTOR IS MODULATED BY THE MIKE ELEMENT AND THE TRANSISTOR MODULATES THE MIKE SUPPLY CURRENT WITH A CURRENT AMPLIFICATION NEARLY EQUAL TO THE BETA OF THE TRANSISTOR. THIS CURRENT CAN EASILY OVERDRIVE A SENSITIVE MIKE CIRCUIT BUT THE 10 OHM RESISTOR CAN BE INCREASED IN VALUE TO DEGENERATE THE GAIN, OR THE AUDIO VOLTAGE CAN BE STRIPPED FROM THE MICROPHONE SUPPLY VOLTAGE AND CONTROLLED WITH A RESISTOR OF POT AS WILL BE SHOWN LATER.

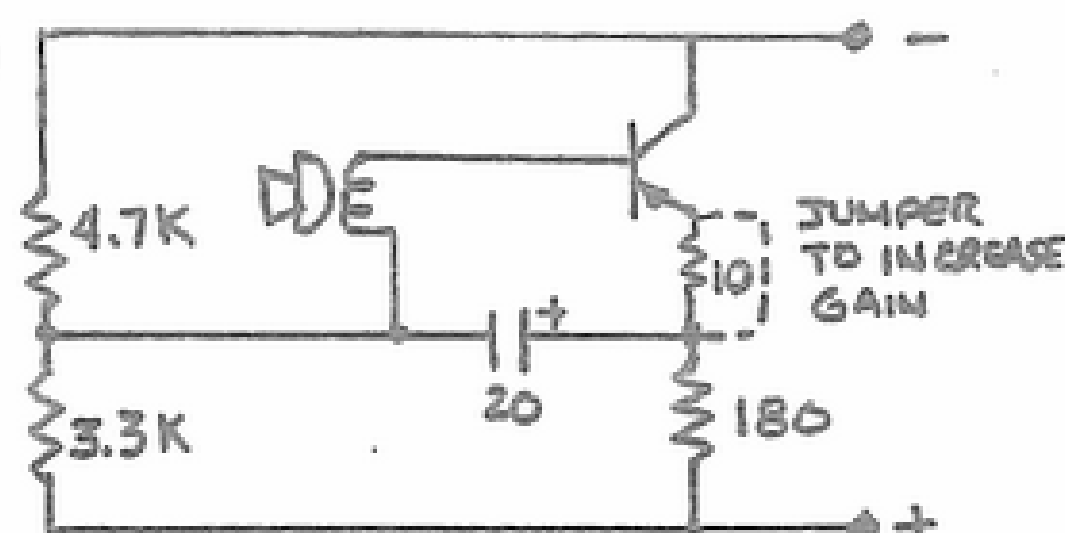


FIGURE 1. CARBON MIKE PREAMP

THE SECOND CASE IS WHERE IT IS DESIRED TO CONNECT A DYNAMIC MIKE ELEMENT TO A RIG DESIGNED TO HAVE A PREAMPLIFIED MICROPHONE. IMPEDANCE LEVELS ARE OK BUT AUDIO LEVEL MAY BE TOO LOW. THIS IS A SIMPLE ONE ALSO BECAUSE VOLTAGE IS ALREADY AVAILABLE ON THE MIKE AUDIO LINE TO RUN A PREAMP TYPE MIKE. SOME TYPICAL EXAMPLES ARE KENWOOD AND ICOM WALKIE TALKIES AND ICOM 701. THE YAESU FT-207R WALKIE TALKIE DOES NOT HAVE A VOLTAGE ON THE MIKE LINE BUT THE MIKE SOCKET ON THE RADIO HAS POSITIVE SUPPLY VOLTAGE TO RUN THE FACTORY SUPPLIED PREAMP. ALSO, POSITIVE SUPPLY VOLTAGE CAN BE STRIPPED FROM THE SPEAKER AUDIO LEAD IN THE MIKE SOCKET. THE YAESU AND ICOM WALKIE TALKIES WILL BE USED AS EXAMPLES

FIGURE 2 SHOWS HOW A SPEAKER/MIKE WAS ADAPTED TO THE YAESU FT-207R. POWER SUPPLY VOLTAGE WAS TAKEN FROM THE SPEAKER CIRCUIT SO ONE LESS WIRE WOULD HAVE TO BE RUN FROM THE MIKE PLUG.

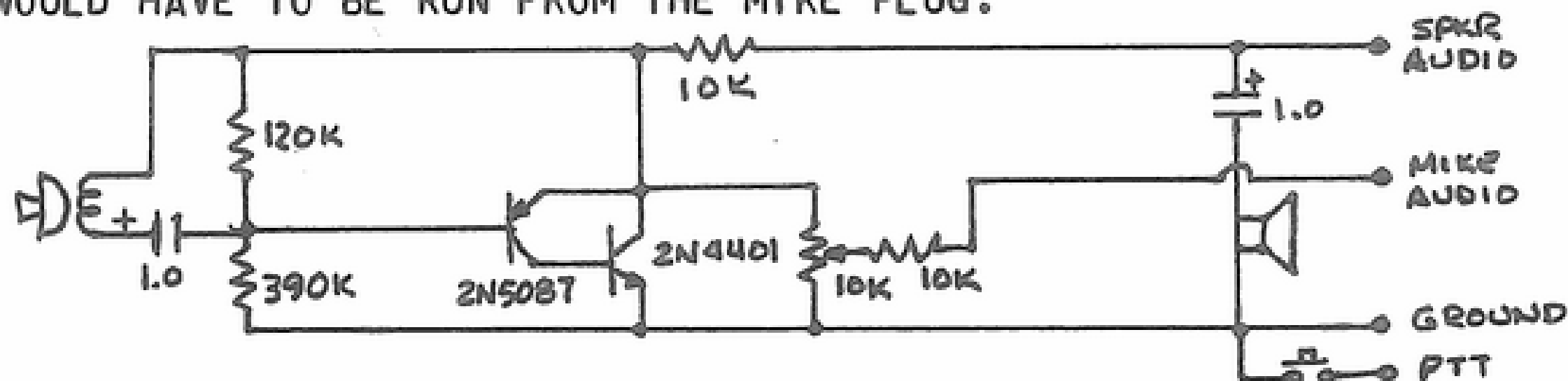


FIGURE 2. FT-207R MIKE PREAMP IN SPEAKER/MIKE

THIS CIRCUIT LOOKS MORE COMPLICATED THAN THE ONE IN FIGURE 1 BUT IT REALLY IS NOT WHEN ONE CONSIDERS THAT THE TWO TRANSISTORS, AFTER CONNECTING THEIR LEADS TOGETHER, ONLY HAVE THREE CONNECTIONS TO BE MADE TO THE CIRCUIT. THE ADVANTAGE IS THAT IT TAKES MUCH LESS CURRENT TO RUN THE THING BECAUSE OF THE DYNAMIC BIAS CONTROLLED BY THE PNP TRANSISTOR.

I AM USING A VERY SIMILAR CIRCUIT ON MY ICOM WALKIE TALKIE TO ADAPT A PACIFIC PLANTRONICS MS-50 HEADSET TO THE THING. THE CIRCUIT IS CONTAINED IN THE LITTLE BLACK BOX PROVIDED BY THE MANUFACTURER TO MATCH THE THING TO A PHONE LINE, I GUESS. THE SIGNIFICANT PARTS OF THE CIRCUIT ARE SHOWN IN FIGURE 3.

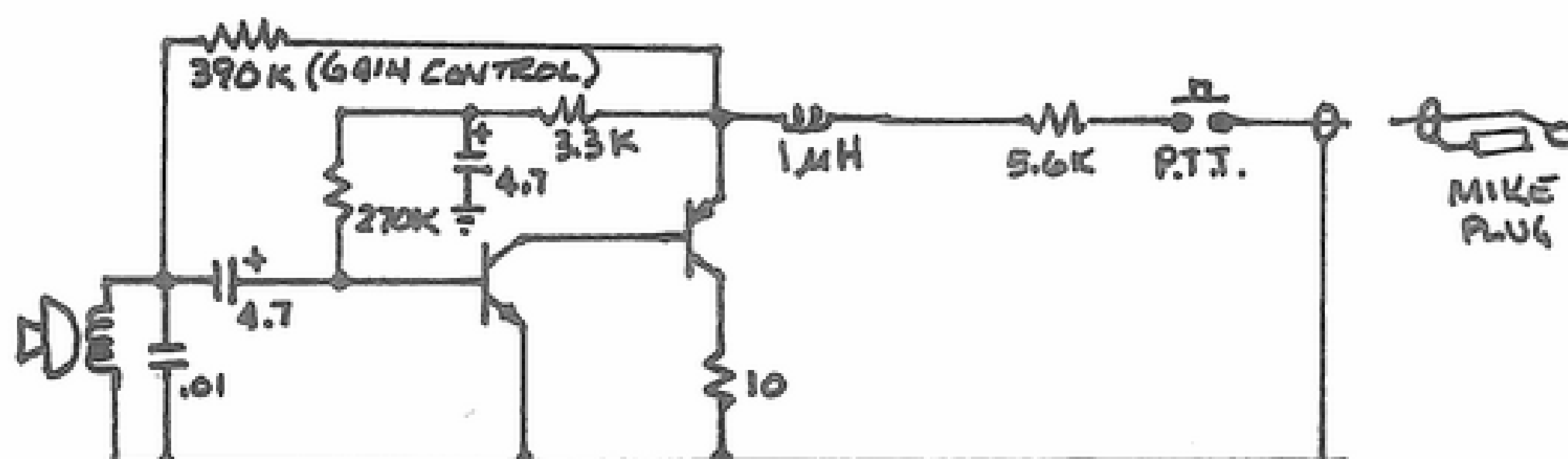


FIGURE 3. MS-50 HEADSET FOR IC-2AT

RATHER THAN MONKEY WITH THE 390K RESISTOR TO GET PROPER AUDIO LEVEL, IT WAS CONVENIENT TO WIRE A VARIABLE RESISTOR TO THE OUTPUT, ADJUST IT TO THE CORRECT LEVEL, MEASURE IT AND INSTALL A FIXED RESISTOR. IN THIS CASE, 5.6K WAS THE CORRECT VALUE. NOTE THAT THIS RIG HAS A RATHER CLEVER CIRCUIT FOR KEYING THE TRANSMITTER BY CLOSING THE MIKE CIRCUIT SO A SEPARATE PUSH-TO-TALK LINE IS UNNECESSARY AND SINGLE CONDUCTOR SHIELDED CABLE CAN BE USED.

THE THIRD CASE INVOLVES CONNECTING A PREAMPLIFIER MICROPHONE, INCLUDING ELECTRET TYPE, REQUIRING EXTERNAL POWER, TO EQUIPMENT NOT HAVING VOLTAGE AVAILABLE ON THE MICROPHONE CIRCUIT. ON EQUIPMENT HAVING MEDIUM IMPEDANCE, THIS IS NOT TOO SERIOUS A PROBLEM UNLESS THE CURRENT REQUIREMENTS OF THE AMPLIFIER CIRCUIT ARE TOO GREAT. FIGURE 4 ILLUSTRATES A CASE WHERE ADDITION OF THE CURRENT SOURCE TO THE MIKE CIRCUIT WOULD SERIOUSLY LOAD IT DOWN, PREVENTING THE PREVIOUS MIKE FROM BEING RECONNECTED TO THE RIG.

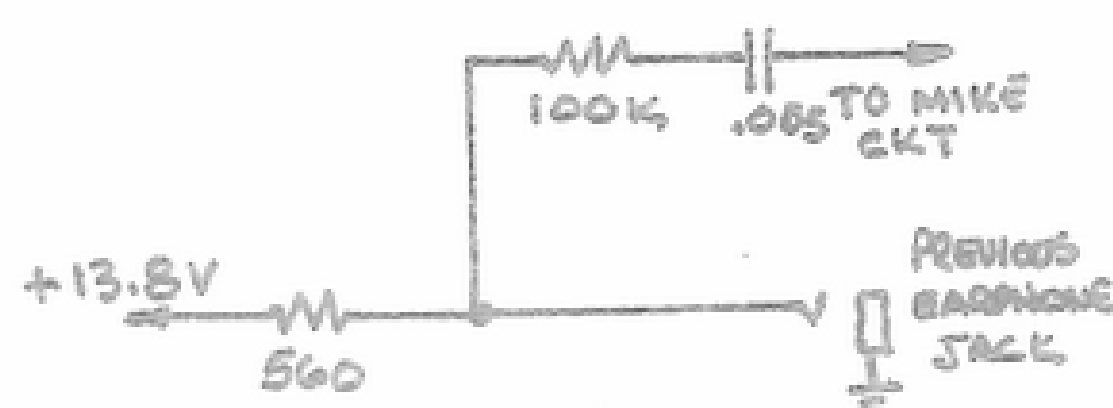


FIGURE 4. T-T PAD ON TR-22

IN THIS CIRCUIT, THE EARPHONE SOCKET IS SACRIFICED TO CONNECT THE TOUCH TONE (R) PAD TO THE RADIO. THE 560 OHM RESISTOR IS THE LOAD FOR THE PAD AND THE 100K RESISTOR REDUCES THE TONES TO THE CORRECT LEVEL AND ISOLATES THE LOADING OF THE PAD CIRCUIT FROM THE MIKE CIRCUIT SO ITS LEVELS ARE NOT SERIOUSLY AFFECTED. THE .005 UF CAPACITOR KEEPS THE PAD SUPPLY VOLTAGE OFF OF THE MIKE CIRCUIT.

FIGURE 5 SHOWS HOW THE PREAMP VOLTAGE CAN BE PLACED ON THE MIKE LINE WHEN THE CURRENT REQUIREMENTS ARE MODERATE. THE 10K RESISTOR WILL ENABLE ABOUT 1MA TO BE DRAWN BY THE PREAMP. THE SHORT CIRCUIT CURRENT OF 1.2 MA WON'T HURT THE DYNAMIC ELEMENT WHEN IT IS RECONNECTED SO IT IS UNNECESSARY TO MODIFY THE MICROPHONE.

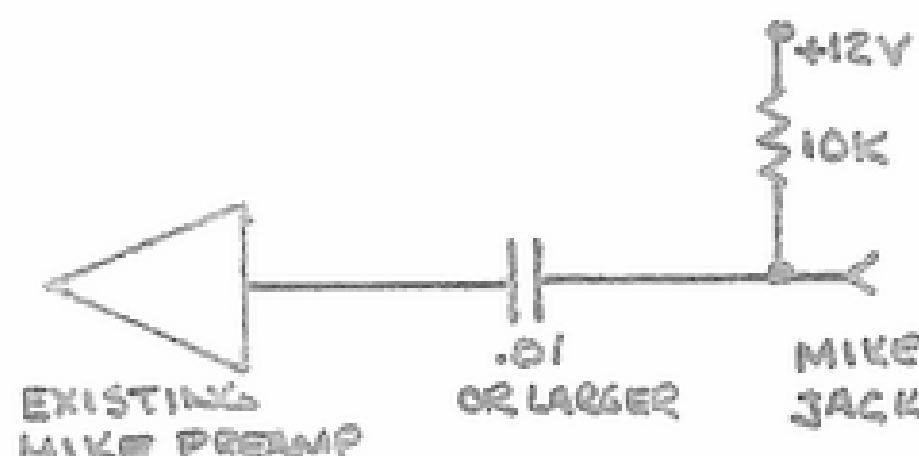


FIGURE 5. MIKE INPUT MOD

N5MS ISSUED A CHALLENGE TO COME UP WITH A CIRCUIT TO ALLOW CONNECTING A LOW IMPEDANCE OR MEDIUM IMPEDANCE MICROPHONE TO A RIG HAVING A HIGH IMPEDANCE, FOR EXAMPLE, CONNECTING THE PLANTRONICS HEADSET TO THE SWAN THREE DRIFTY, I MEAN, FIFTY. WELL HERE IT IS IN FIGURE 6.

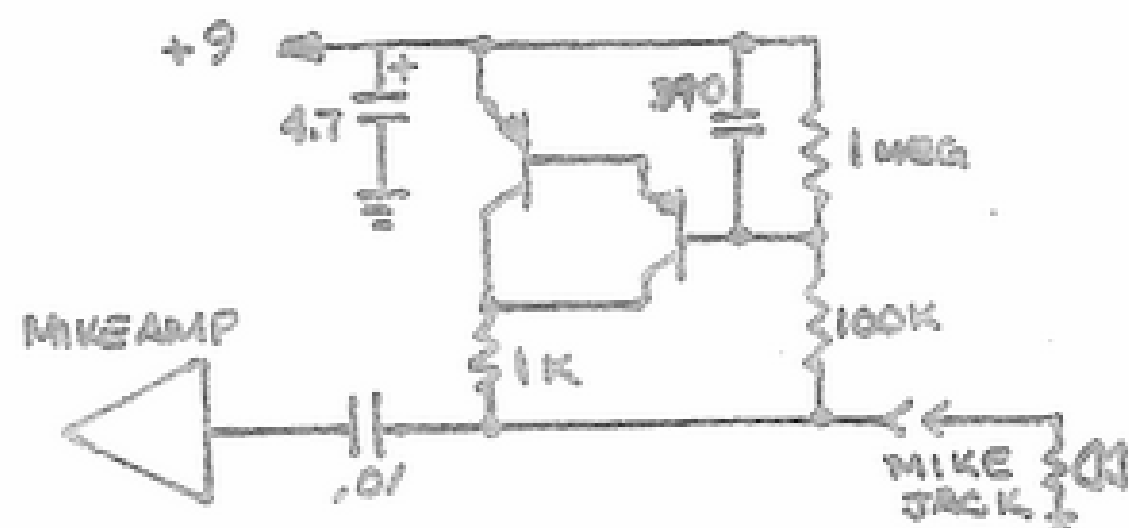


FIGURE 6. MIKE'S CHALLENGE

IF HE WASN'T WANTING SOMETHING SO SILLY, IT WOULD BE UNNECESSARY TO USE THE DARLINGTON AND THE 1K RESISTOR COULD BE REPLACED WITH A 10K AND THE THING WOULD STILL SUPPLY PLENTY OF CURRENT TO RUN A REASONABLE PREAMP. WHEN A DC PATH IS CONNECTED TO THE MIKE JACK, THE TRANSISTORS GO INTO CONDUCTION BLASTING THE MIKE CIRCUIT WITH PLENTY OF CURRENT. ANY OTHER MICROPHONE THAT IS CONNECTED SHOULD HAVE A CAPACITOR

INSTALLED IN SERIES WITH THE AUDIO LEAD TO PREVENT IT FROM SWITCHING THE CIRCUIT ON, CREATING INSTANT LOW IMPEDANCE.

FOURTH CASE, AND AT LAST, THE LAST, IS CONNECTION OF A CRYSTAL MIKE TO A RIG HAVING MEDIUM IMPEDANCE. THIS ONE IS NOT TOO TOUGH BUT THE CRYSTAL SHOULD NOT BE ATTACHED TO A LOAD IMPEDANCE OF LESS THAN 100K. IN FACT, FOR BETTER LOW FREQUENCY RESPONSE, IT SHOULDN'T SEE LESS THAN 1 MEG. FIGURE 7 DISPLAYS TWO CIRCUITS WHICH WILL WORK FINE. ONE IS A FET WIRED AS A SOURCE FOLLOWER. THE GATE IS REVERSE BIASED BY THE VOLTAGE DROP THROUGH THE FET AND THE 470 OHM RESISTOR SO IT HAS A

VERY HIGH INPUT IMPEDANCE. THE DARLINGTON ALSO HAS A FAIRLY HIGH IMPEDANCE, IN THE ORDER OF 100K IN THIS CIRCUIT. BECAUSE OF LOADING EFFECT BEING TRANSFERRED BACK TO THE CRYSTAL ELEMENT, IT IS NECESSARY TO WORK WITH RESISTANCES THAT ARE A BIT HIGHER IN THE DARLINGTON. ORDINARILY, AUDIO VOLTAGE AVAILABLE FROM THE CRYSTAL ELEMENT IS PRETTY HIGH AND ADDITIONAL AMPLIFICATION SHOULD BE UNNECESSARY.

CIRCUITS HAVING THESE IMPEDANCE LEVELS CAN BE QUITE SENSITIVE TO RF SO CAREFUL SHIELDING AND BYPASSING WILL BE NECESSARY.

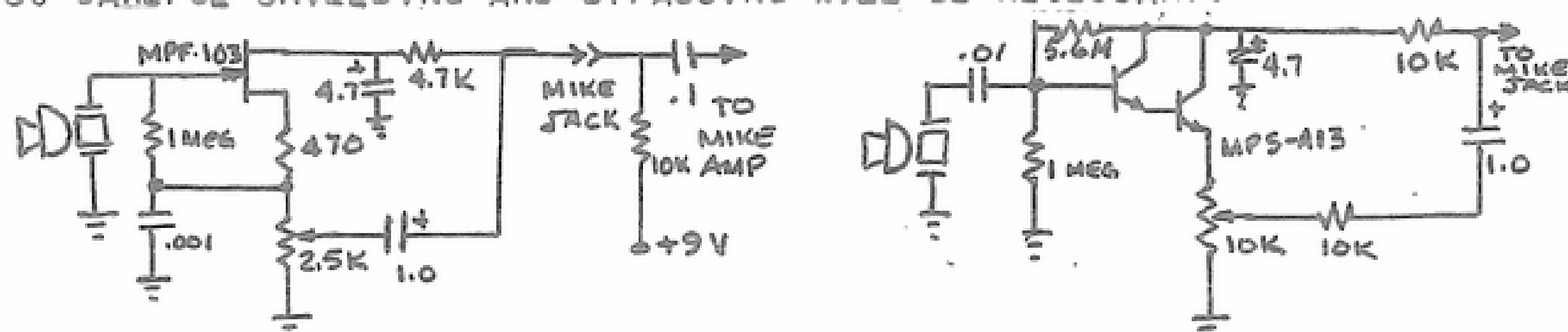


FIGURE 7. CRYSTAL MIKE IMPEDANCE MATCH

FORTUNATELY, NOT MUCH NEEDS TO BE SAID ABOUT ADAPTING AN ELECTRET ELEMENT TO ANY OF THESE CIRCUITS BECAUSE THEY ARE QUITE WORTHLESS WITHOUT A PREAMP SO ONE WILL ALWAYS BE SUPPLIED. THE LITTLE ELEMENTS AVAILABLE AT RADIO SNACK STORES HAVE A FET BUILT IN SO THEY CAN BE TREATED AS MEDIUM IMPEDANCE MICROPHONES AND VOLTAGE SUPPLIED TO THEM WITH ANY OF THE CIRCUITS ALREADY DESCRIBED.

HERE IS A GOOD PROJECT FOR SOMEONE: PICK UP A DYNAMIC MICROPHONE AND HOOK IT INTO THE EARPHONE SOCKET OF THE RADIO, PREFERABLY A WALKIE TALKIE. IF YOU CAN STAND THE SQUEEKY SOUND THEN GO TO THE RADIO SNACK STORE AND PICK UP AN ELECTRET ELEMENT FOR A COUPLE OF BUCKS. DRILL A HOLE IN THE MICROPHONE HOUSING AT A SUITABLE SPOT AND GLUE THE ELEMENT INSIDE THE CASE. WIRE IT UP, SUPPLYING SUITABLE VOLTAGE FROM THE RIG AND YOU HAVE A SPEAKER MIKE THAT WORKS AS GOOD AS THE ONES SUPPLIED BY KENWOOD AND ICOM. PICK A CASE LARGE ENOUGH AND THROW THE MIKE ELEMENT AWAY, REPLACING IT WITH A 2" SPEAKER AND YOU HAVE A SPEAKER MIKE AS GOOD AS ONE SUPPLIED BY MOTOROLA. K5JB

MAIL FOR DEAR JABBY

DEAR JABBY

FOR SOME REASON, WHEN I COME ON THE REPEATERS WITH "BREAKER 19", NOBODY WILL TALK WITH ME. THIS FRUSTRATES ME AND ALL I CAN THINK OF TO DO IS CUSS 'EM OUT. WHY WON'T NOBODY TALK TO ME ON THE F----- REPEATER? FOULED UP

DEAR F.U.

MY EXPERT ON THE SUBJECT DEAN E. CAPPER ADVISES THAT PERHAPS IT IS YOUR BREATH. YOU MIGHT TRY WASHING OUT YOUR MOUTH WITH GRANDMA'S LYE SOAP. IT IS HARD TO GET NOWDAYS BUT HE ADVISES SOME WILL BE AVAILABLE IN THE ALLEY BEHIND THE BUS STATION NEXT SATURDAY NIGHT AT 10 O'CLOCK. A BLANKET PARTY AND A G.I. BATH MAY ALSO BE AVAILABLE AT THAT TIME. JABBY

DEAR JABBY

CAN YOU TELL ME WHY THE ENID REPEATER GETS INTO THE OKLAHOMA CITY REPEATER BUT OKLA CITY REPEATER DOESN'T GET INTO THE ENID REPEATER. I ASKED K5CAY IN ENID THAT QUESTION AND HE SAID HE NEVER HEARD OF SUCH A THING AND WENT QRT. VERY DUPLEXED

DEAR DUPE

IT'S VERY SIMPLE, AS EXPLAINED IN BASH'S BOOK. THE ANSWER IS D. NONE OF THE ABOVE. IF YA NOTICE ON THE MAP, ENID IS UPHILL FROM OKC, BESIDES, ENID WAS ON THE AIR FIRST. SIMPLE 'EH? JABBY

FOR SALE: FT-207R, TWO BATTERIES, WALL CHARGER, FACTORY UPDATED.
\$275.00 JIM, K5VRL, 789-0769

kay

COUNTY AMATEUR RADIO CLUB
COUNTY AMATEUR RADIO CLUB
COUNTY AMATEUR RADIO CLUB

HELLO, FOLKS!

Here I am after 2 months of no-show in the C&E. I can honestly say I thought I was more than a week ahead in November but they went ahead of schedule I guess and I missed out. December deadlines flew by before I knew what had happened. But I am trying to get back on track now for the new year. One of those many resolutions one makes and hopes he can keep. Of course, I've always heard resolutions are made to be broken. A friend of mine said that a few years ago he made a resolution to make no more resolutions. He hasn't broken that one yet. May just have to follow his example one of these years----

ARCHIVES

To let all of you know we are not dead up in northern Oklahoma, here is a re-cap of what's been going on.

Our November meeting was a short business meeting and a program by Leonard Holler from the ARRL bringing us up to date on what's happening. I'd like to thank our secretary Cosby Clark for lining that one up.

Our December meeting was a dinner meeting at the Quo Vadis. We had 29 people show, wives and all, and had a very fine meal. Our guest speaker was Neal Smith, KF5T, and his wife "Jo" (or George as she is called by her friends and children) from TET USA out of Norman, Oklahoma. These folks have established a very fine antenna manufacturing business down there and lot of good information was dispelled during his talk. He also gave each of us a copy of a Japanese CQ magazine, one month's worth (April, 1980 to be exact). I sure wish I could read Japanese, because this issue is almost 2 inches thick with a lot of articles. I sure wish we could have that many articles a month in our versions of these monthly amateur pubs. It is also interesting to look at the pictures of the equipment that is available in Japan but not here yet. "Yet" is the key word, tho, as Neal pointed out a few items that are coming.

We then had a door prize drawing to move junk from one person's house to another. Cosby Clark, WB5JYC, took home a frequency selective volt meter, a visiting ham from France took home a tube tester, Neal Smith, KF5T, took home some box that his wife said he'd better take because she wanted to make a flower pot out of it. The grand prize was a dual Swiss quad donated by Neal and TET for 2 meters, and was won by Harry Beattie, WD5DPR. We then adjourned meeting and had a general rag chewing and eyeball QSO's with a few of us moving the meeting into the private club there. A good time was had by all and it goes to prove that good programs don't bring you to meetings, but good food will get you everytime. Of course, maybe Momma made you come and bring her so she wouldn't have to cook. Whatever the reason, I can guarantee you this will become a regular event from now on. That was too much fun!!

By the way, our October meeting was presented by the Science demonstrator from Ma Bell. She (yes, that's she) gave us a past history of telephone operations and a glimpse of what's already in use and what's in the future. It was a really great program with good attendance but if any other clubs want her personally, you better hurry. She's going to retire this year. She is a really fine lady and gives a great program!!

FOR SALE: Active antenna, Skynix model YN-1000B, covers LF, MF, HF, and VHF spectrum. Requires 12 VDC. May be mounted on a vehicle or used in the shack. \$15.00. W5JJ, 'phone 7893788. etc.



BOY, IT'S QUIET AROUND HERE!

There seems to be a lack of repeater activity around here lately, but I guess that could be related to a lack of amateur activity up here, too. But in case you have forgotten, we have a regular NET on Monday evenings at 9:00 pm or 2100 hrs. local time (or 0300 ZULU if you prefer). But please, remember it. Everyone is cordially invited to participate and even get involved and yes, you, too, can get involved! Everyone likes the feeling of being in control of a situation, and now is your chance to do so. Cosby, WB5JYC, is taking volunteers to be NET control for 1981, so give him a call and do it to it! Besides, maybe '81 will require our help where '80 didn't and that NET training will come in handy as it has in the past.

Our January meeting was held in the EOC of our Public Safety Center due to the unavailability of our normal room for this month only. The meeting was a short business meeting with an extremely good attendance. Our dues were the main topic of discussion and after comparing our costs of supporting our repeater to what is coming in, we elected to increase dues to \$15.00 a year from last year's \$12.00. We also created a membership for non-repeater members of \$5.00, to hopefully bring some of our local novices into the club action. Several items concerning repeaters operation were discussed and the meeting was dismissed early. See you next month at the 101 room as usual----

I also feel I should mention that we have another repeater available for local use on 22/82. If 37/97 is busy and you can switch over to QSO, do so. It is a shame for such a fine accessory to our area to be neglected!

WITH RESPECTS

I hope everyone had a very happy holiday season and hope all your dreams and wishes come true. But I hope you all remember that the real joy is in giving, whether it be gifts or in help or public service to someone or our community. To me, the warm feeling I get from a simple "Thank you" for a job well done just can't be beat!!

73's

STEVE

SELL like new TA-40-KR 40 meter adapter for Moseley TA series tri-band beams. Installed and operating for very short time. If you operate a TA-33 or TA-36 beam here is an excellent way to expand the frequency coverage to 40 meters for no-switch band switching. New cost for the adapter is \$119.00, sell for \$50.00. Rob Runyon AA00 373-1818. OKC

Advertisement for World Wide Electronics featuring various electronic components and tools. The ad includes the following text:

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Public Service in Amateur Radio

AMATEUR EMERGENCY PREPAREDNESS UNDERWAY

Through the efforts of the Oklahoma County Amateur Radio Emergency Service and Mr. Jack Muse, WB5ZKZ in particular, meetings are underway to acquaint the radio amateur with various emergency services in the central Oklahoma area. Specific duties, obligations, and legalities of the individual services will be presented, along with question-and-answer sessions. The seminars are geared to present overviews of emergency service operation, with emphasis where needed to relate to volunteer communication by amateur radio operators.

The first meeting covered the operation of the American Red Cross. Held January 22, the program was conducted by Jack Muse, Disaster Director, western Oklahoma-Texas panhandle division of the American Red Cross. Several Red Cross staff members and volunteers were present, along with registered nurses and a good number of amateur radio operators. Also in attendance was the president of a local citizen's band club, taking notes, participating, and vowing to get his amateur license!

The second meeting originated at state Civil Defense headquarters in the state capitol complex on January 29th. Since the editing date for C&E was immediately after the Red Cross meeting and before the Civil Defense meeting, details will appear in the future editions of the Collector and Emitter, hopefully with contributions by the agency's public information officers.

FEBRUARY MEETINGS include the following: Come if you can, when you can

February 5th at the Oklahoma City Fire Department Headquarters, downtown, 7 pm
February 12th at the County Civil Defense Hq, Oklahoma County Courthouse, 7 pm
February 19th at the Red Cross building downtown. Topic: Damage Surveys 7 pm
March 2 at the National Weather Service, Airport, Skywarn Spotter Training 7 pm

NWS SKYWARN SEMINARS SLATED

Mr. Neal Marchbanks, Warning and Preparedness Director of the National Weather Service's Oklahoma City office, has announced the first group of Skywarn Spotter Training seminars. The NWS has conducted these seminars throughout the state, providing city, county, and state officials, Civil Defense volunteers, amateur radio operators and interested members of the public an opportunity to learn various weather patterns and spotting procedures.

Mr. Marchbank's duties began in the Oklahoma City office January 19th, filling the vacancy of Larry Mooney (WB5PWY), who has been promoted to a position in the NWS office, Fort Worth. Mooney was responsible for a wide growth in seminar locations, and attendance increased accordingly. Mr. Marchbanks is not an amateur radio operator (but with our operation and enthusiasm this spring, maybe he'll catch the bug).

SKYWARN is a project of the National Oceanic and Atmospheric Administration, NOAA, and is a non-partisan system. Skywarn is the link between spotting, evaluation and warning. It is used statewide, nationwide, and locally as the source of official information and warnings. It is also the perfect system for volunteer communicators, such as amateur radio operators.

It must be emphasized at this point that the effort to bring Skywarn training to the amateurs is in no way a threat or challenge to existing weather nets. This training helps the amateur make the entire system smoother. Hopefully, local nets can cooperate by sending liasons to other nearby nets, thereby providing wider coverage and faster information handling, which is why we're involved in the first place.

THIS CENTRAL OKLAHOMA SKYWARN MEETING IS NOT COMPETING WITH THE OCAPA WEATHER NET MEETING TO BE HELD FEBRUARY 17th. COME TO BOTH and discuss how WE can ALL make the system better than ever!

SEE NEXT PAGE FOR LOCATIONS/DATES FOR SKYWARN TRAINING

WEATHER MEETINGCHANNEL 9 FEBRUARY 17th AT 7:00pm BE THERE !!!!!

SKYWARN, CONTINUED

MEETING DATES AND LOCATIONS FOR SKYWARN TRAINING

FEBRUARY	4 th	STILLWATER	TBA	Evening
	5 th	CHANDLER	TBA	Evening
	9 th	NORMAN	225 N. Webster	7 pm
	11 th	LAWTON	Commanche County Courthouse	7 pm
	12 th	DUNCAN	Stephens County Courthouse	7 pm
	18 th	FREDERICK	Civic Center	7:30 pm
	19 th	ARDMORE	E.O.C.	6:30 pm
	23	WOODWARD	TBA	Evening
	24 th	ALVA	TBA	Afternoon
	26 th	GUYMON	TBA	7 pm
MARCH	2	OKLAHOMA CITY	Red Cross Building, downtown	7 pm
	3	KINGFISHER	E.O.C.	Evening
	5	GUTHRIE	TBA	TBA

Listed above are the Skywarn Training seminars as we have them. Times and places for some are sketchy at press time, so check with your local club, repeater, Civil Defense Director, or NWS Oklahoma City for details as your meeting time begins to roll around. Please, don't forget! There is no charge, and all interested persons are invited to attend.

If you have information which may pertain to emergency preparedness in any way, please send it to the C&E or WD5DYI, Mark Northcutt, 1509 Barclay Road, Oklahoma City, OK 73120. Send anything of interest: personal experiences, quick portable antennas, ideas on emergency power, public service events to report on or to instigate, instructional information on traffic, public relations, or even some questions that may be pondered. If there is enough interest and enough space in the paper for it on editing day, we'll put it in. Don't expect a regular column if you don't contribute to it---I'm learning this stuff from the ground up! Let's kick around a few ideas and see what we come up with. It's up to you. wd5dyi

OKLAHOMA STATE EMERGENCY COORDINATING FREQUENCIES ARE:

3.900 MHz Main and 7.285 MHz Alternate, both Lower Sideband

MONITOR the operating coordinating frequency PLUS your local repeater in time of emergency. Listen more--transmit less. STAY OFF THE AIR unless or until you are sure you can be of assistance. Keep transmissions short and to the point. Lives may be hanging in the balance.

CONGRATULATIONS go this month specially to a recent upgrade to Technician Class. Betty Couch, KA5DRX of Guthrie, and wife of Joe, WD5BMP, passed the test January 6th in downtown Oklahoma City. Now that doesn't sound too unusual, but Betty passed on her SEVENTH try. Think about that for a minute and tell me that doesn't take courage and persistence. Way to go, Betty, we're proud of you!

IS BUILDING TOTALLY A LOST ART?

If the answer to the title question is a negative, then the September issue of Amateur Radio (available in the ACARC clubroom) should be of worth. It has an excellent article on building a 5-watt VXO radiotelegraph transmitter.

Don't sneer at five watts. That amount of power coupled to just a fairly-good antenna and operated by a skilled individual can make W A S with no great difficulty.

W5JJ

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EDMOND AMATEUR

RADIO SOCIETY

147.72/147.12

OK! Here we go with the last column of our year. We have had two meetings since this rag was last published, so first the December meeting.

At an executive committee meeting before the December general meeting, the committee agreed to act as a nominating committee; and to conduct a 1981 summer novice class which your scribe agreed to teach with the understanding that he would not be nominated or elected to another office (more on that later). At the regular membership meeting.

- * Dollmeyer and McMullin agreed to proceed with developing and printing a membership card.
- * A discussion of an associate membership grade proved inconclusive and the matter was dropped.
- * CORA roster data was checked prior to submitting corrections to CORA.
- * The membership concurred in the recommendation to conduct a summer novice class.
- * Our trusty repeater trustee reported on repeater status and filled us in on some thoughts about establishing a link to an EARS operated repeater in Tulsa.
- * Bill Demand's offer of a generator for club use was discussed. Bob Janda and Roger Harmon were coerced into agreeing to arrange for hauling the generator from Noble to Edmond. It will be parked at the KB5RR QTH until a better site can be found.
- * New member Tom Cassady, KF5E was in attendance. Tom's equipment includes a Yaesu FT101ZD and a Kenwood 7625. Pretty fair credentials if you ask me.

With that we swapped beautifully wrapped Christmas items from our respective junk boxes, watched a film from the CSU physics teaching library, and adjourned for coffee or whatever.

The January meeting was handled very expeditiously by our President (now ex) Ken Stepp. The rascal made the election of officers the first order of business and then ran for cover leaving your venerable scribe holding the bag. Well that settles at least one issue. I have several other things going on in my life and I cannot afford to play the dual role of club president and teacher of the novice class - you are going to have to help me find another teacher.

Your new club officers are:

Clarence Dollmeyer, President, KB5RR
Don Brown, Vice President, WD5DGC
Roger Harmon, Secretary/Treasurer, KB5QC
Jim Buswell, Activities Director, N5BEQ
Ken Stepp, Emergency Coordinator, WD5HXX

Frankly we owe Ken a tremendous vote of thanks for a highly successful club year. He set several goals for us and he led us to achievement of all of them.

WELL DONE KEN

The first order of business was to make the above appointment of Emergency Coordinator. Our emergency operations structure remains intact;

E A
R S

HAPPY NEW YEAR from the 72/12 gang

no changes. Bob Janda accepted the assignment of moving the DeMand generator to Edmond and having it on wheels and running before Field Day. Bill Wright accepted appointment to audit the club financial records and deliver same to the new secretary/treasurer. David Dowdy accepted reappointment as CORA representative; Bill McMullin and Clarence Dollmeyer will serve as the other two members of the club delegations to CORA. Bill Wright also accepted an assignment to update our by-laws to provide for a nominating committee and election procedures; and to provide for family membership.

- * A discussion was held concerning relocating the club bank account. The new officers will investigate and report.

- * Ken Stepp, E.C., reported on Edmond Civil Defense 1981 program which includes: a new operations center in the Post Office basement; Edmond has ordered 72/12 and 12/72 crystals for the 2 m rig which Western Electric had donated earlier; the City plans to acquire an HF rig for the EOC; and there may be a permanent club room for EARS in the deal.

- * Edmond civil defense coordinator will conduct a weather course in March (Auto Patch weather meeting is Tuesday, February 17).

- * A discussion of Field Day brought forth the idea, as Bill Bolland expressed it, "we are not going to be competitive nationally so why not enjoy it". So why not set our field day up on a one day plus family picnic basis. Plan a neat orderly set-up, establish a log that demonstrates our ability to communicate, invite the press and city officials to view our handiwork, then break out the hot dogs and enjoy. It will still be light enough between 2000 and 2100 hours to break camp and go home for a good night's sleep sans mosquitos etc.

In addition to Field Day we have inherited a fair list of projects:

- | | |
|----------------------------|-----------------|
| * EOC Development | * New Generator |
| * Ham Holiday - ARRL Booth | * Siren Tests |
| * Edmond Weather | * Novice Class |
| * Edmond Parades, etc. | * New Members |

That will probably keep us up to our eyeballs in work for awhile.

A suggestion was made that we endeavor to build a club antenna. No great outpouring of support for this but it did bring an offer of an 80/40 dipole and a 40' telescoping pole (from Don Brown and Ken Stepp respectively) so we now have one of our field day antennas.

Our February program will feature Bill McMullin (the bearded one) on the subject of Delta Loop Antenna Construction. Be there Sunday, 15 February 1981 at 1400 c or 2000 z; Science Building, Central State University Campus, Edmond, Oklahoma.

Our club is loosing one of its more active 2m types to our sister city of Tulsa and we wish him well. It seems that Ma Bell in her infinite wisdom thinks that Dave Dierker, WB5RLR, can be of more service over there. Sounds like a nice promotion Dave--give'em H _ _ _ and come and visit us occasionally.

During the ensuing weeks we will be calling each of you by phone to ask: What are your interests in being an EARS member?; and, What will make the club more interesting to you? We need your guidance to formulate our program so be ready.

EARS

HOLD EVERYTHING --- STOP THE PRESSES --- here is our annual report from our trusty repeater trustee. Did not think we were going to get it in time but Martin found it way in the back of the computer

1. I FOUND IT !!!!!!!!!
2. AT LEAST I THINK I HAVE. THE ELECTRICAL TYPE NOISE
3. THAT HAS PLAGUED 72/12 INTERMITTENTLY NOW FOR SEVERAL
4. MONTHS HAS BEEN ISOLATED TO A DEFICIENCY IN OUR
5. OWN DB264 ANTENNA AT 220FT..
6. PRESENT PLANS ARE TO INSTALL ANOTHER ANTENNA ON TOP
7. OF THE SMALL TOWER (175FT. TO TIP) AND REMOVE THE
8. ANTENNA AT 220FT.. THIS WILL ACCOMPLISH TWO THINGS.
9. OUR TRANSMITTER SIGNAL WILL BE MORE OR LESS OMNI-
10. DIRECTIONAL. WITH NO MORE BAD SHADOW CAUSED BY THE
11. 4FT. THICK TOWER ON ONE SIDE. THE SECOND THING IS
12. TO LIGHTEN THE LOAD ON THE LARGE TOWER AND PUT THE
13. UNUSED SMALL TOWER IN SERVICE.
14. MANY IMPROVEMENTS HAVE TAKEN PLACE IN THE
15. REPEATER SYSTEM IN RECENT MONTHS. BUT I HAVE BEEN
16. TOO BUSY TO WRITE UP THE DETAILS FOR C AND E
17. SO MANY OF YOU MAY OR MAY NOT KNOW WHAT HAS BEEN
18. DONE. IF ANY OF YOU NOTICED A SUDDEN INCREASE IN
19. THE TRANSMITTER SIGNAL IT'S FOR A GOOD REASON.
20. OUR 30W. MOTOROLA TRANSMITTER HAS BEEN EXPANDED
21. BY THE ADDITION OF A MOTOROLA 1/4 KW. COMMERCIAL
22. POWER AMPLIFIER. IF YOU CAN'T HEAR IT NOW, CHECK
23. YOUR RIG. A NEW CONTROL SYSTEM HAS BEEN ADDED TO
24. EXPAND OUR "NURD CONTROL" CAPACITY. MULTI-MEDIA
25. CABLEVISION OF EDMOND, OKLA. HAS VERY GENEROUSLY
26. OFFERED US THE FREE USE OF THEIR TELEPHONE LINE
27. LOCATED AT THE REPEATER SITE. THANKS ALSO GOES
28. TO DAVE, WB5RLR FOR HIS ASSISTANCE IN MAKING
29. THIS POSSIBLE. AS A RESULT OF THIS ADDITION, WE
30. CAN NOW REMOTELY TURN OFF EITHER THE AUTOPATCH
31. OR THE ENTIRE SYSTEM. I REGRET TO SAY THAT WE
32. HAVE ALREADY HAD AN OPORTUNITY TO TEST IT AND
33. IT WORKS GREAT.
34. IF YOU HAVE NOTICED THAT THE BEEPER IS NO
35. LONGER ON THE REPEATER. CONGRATULATIONS, THAT
36. IS VERY ASTUTE OF YOU.
37. IF YOU DESIRE TO USE OUR AUTOPATCH JUST ASK
38. ANYONE ON THE AIR FOR THE ACCESS AND IT WILL
39. BE GIVEN TO YOU. THE PATCH IS OPEN BUT IS
40. REMOTELY LOCATED ABOUT A MILE FROM THE REPEATER
41. SO THE OPERATION OF IT IS SLIGHTY DIFFERENT
42. THAN MOST. PLEASE GIVE US THE OPPORTUNITY TO
43. EXPLAIN IT TO YOU BEFORE YOU MAKE AN XXX OUT
44. OF YOU AND ME.
45. THAT IS ALL THAT I CAN THINK OF THAT MIGHT
46. BE OF RELATIVE INTEREST TO YOU FOR NOW. I
47. MIGHT SAY THAT PLANS ARE IN THE MILL FOR A
48. LINK TO A TULSA REPEATER BUT I WON'T FOR NOW.
49. (OOPS!)
50. FOR THE MOMENT LET ME TURN THIS COMPUTER BACK
51. OVER TO THE CUSTOMER WHO IS IMPATIENTLY WAITING
52. TO RUN SOME SILLY OLD PAYCHECKS.
- 53.
54. MARTIN WD5FEI

Well that's the swan song fellas. It has been great and I have enjoyed doing it. So now I yield to our new Vice President and Editor Don Brown. Good Luck Don.

73 SK EARS DE KB5RR CL CL

Well, well , well, it is hard for me to believe but we actually had our regular meeting prior to paste-up this month. There were a goodly number present, thirty or more, and everyone seemed to think that a fair amount of business was taken care of. After a very detailed explanation of the treasury, and the moneys on hand, and the money to be received, the entire club voted unanimously on several expenditures. The first was heliax; about 1500 feet of the stuff in two 750 feet runs complete with fittings, at a cost of approximately 4800 dollars. It has been a long time coming, and it sure feels good typing out that it is now OKed. Another item approved for purchase was about \$300 for Larry (WB5NYX) to build a new phone-patch for 81-21. I understand it will be better, and have more features than is available on any commercial unit. Good news for the 2 meter autopatch users. The last expenditure approved was the purchase of the UHF receiver strip that we have been using for over a year. It will now finally be ours, and the cost was \$500 for the complete receiver with crystal and channel-guard.

These expenses the club voted in will now bring the Oklahoma City Auto Patch Assn. back to having one of the finest systems anywhere in the country, on four different repeaters. This is something every member can take pride in.

There was other business taken care of at the meeting, including time for a break. (some felt they could not go another second without a cigarette). However, in spite of that there was plenty of time for Buddy(KA5AQY) to tell us about, and even demonstrate a decoder that will work on about any 2 meter rig, so when severe weather is in the area, an encoder, attached at the transmitter, can be turned on and in turn turn the audio on our radio on. Almost too good to be true, but it works, and the best part is it will cost each one that wants one only about \$5. Buddy said he will have a real live demonstration at the next meeting. He will also try to have all the "kits" ready for us---so bring about five dollars with you.

It was also voted at the meeting to continue to have our regular meetings at the fire training center. It's a very nice place, and a lot closer to home for bunches of folks, can't please everyone. So, beginning with the March meeting we will be meeting at the fire training center regularly. The February meeting will once again be held at the channel nine studio, as it has been in the past.

WEATHER WEATHER WEATHER WEATHER WEATHER WEATHER WEATHER WEATHER WEATHER

The next regular meeting of the Oklahoma City Auto Patch Assn. will be held at the channel 9 studio. The time is set for 7pm local on Tuesday February 17th. This is our regular meeting night and therefore should not be a problem for anyone. We encourage everyone to attend and bring friends. This is the meeting for learning more about severe weather and the reporting process. There will be films, slides, and other goodies for us. If you feel you know all there is to know already, then use this meeting for a refresher. I am sure that everyone there will walk out knowing more than they did when they arrived. I believe that in addition to our club members the entire channel 9 weather department will be on hand. So any questions should be able to be answered. Please plan your arrival time to be about 6:30 to 7:00 pm local time on the 17th. There will also (hopefully) be coffee and I know a good time by all..... So plan on being there and bringing your police, fire, CD, and other concerned friends with you .

For Sale: Icom IC230, synthesized, 2 meter radio. Also KLM 10-140B (10 watts in for 140 watts out) 2 meter amplifier, Both priced to sell at \$150 each. Contact Mark Adams (WA5REC) at 348-7847.

For Sale: Galaxy 300 Transceiver. Tri-Bander. Has 20,40, & 80 meters. This is a CW, AM, and SSB transceiver. Has Power supply and cables. Ready to go for \$100. Contact Ron Francis (WB9WLY) at 737-3415

For Sale: Yaesu FT202R 2 meter Handie Talkie. Has nicads, case, original box etc also has crystals for 52-52, 34-94, 16-76, 22-82, and 07-67. Also have the NC-1 battery charger. (desk type) you get the whole thing for \$135. Contact Henry Israel (N5IH) at 722-3848.

For Sale: Icom DV21. This is the scanning, digital, synthesized, external VFO for the Icom IC21 and IC21-A. Comes with cableing, manuals, and has both power supplies built in.(110ac-13.8dc) can be used with other rigs. \$200? contact Henry N5IH 7223848



WEATHER MEETING

CHANNEL 9 FEBRUARY 17th AT 7:00 pm BE THERE!!!!!!!

***** OKDX *****

The regular meeting of the OKDX group was held on Monday January 12th at 6pm local time at Kryder's electronics, Those present were:

K5GL	Guy	WD5FXP	John	K2GKK	Mac
N5IH	Henry	N5GE	TOM	KA5BJS	Judy
AD1S	George	W5KWK	Charlie	W1GOM	Art
N5SW	Chuck	KE5M	Ron	KA5IDQ	Max
N5FM	Frank	KA5JUU	Martin	N5OK	Coy

I certainly hope that I did not miss anyone that was there, for a small mistake was made by not taking a list at the time.--next time---

It was decided by a unanimous vote for the next meeting to be held at the Colony Kitchen restaurant at 6351 north MacArthur Blvd. (just south of NW 63 on the west side of MacArthur.) The time will remain the same (6:00pm local) and the folks at the restaurant said we would be more than welcome. I know for a fact every time I've been in there for coffee it was good so we will have a good time at our new meeting place. If by some chance this place does not work out then we will decide on another joint.

Guy (K5GL) brought the computer run for the need list to the meeting and gave everyone a copy. The only problem was that only three folks had given him there list. So be sure and get your needed countries list to Guy before the next meeting. Either list them on a sheet of paper or take one of the ARRL lists and mark the ones you need. Then you may get special attention and help on the ones you need for a new one. I know that it is hard to know if someone needs a country if the list is not in. If we have your list and a new one for you is on, and for some reason you are not on the OKDX frequency, we will then be able to telephone you. But we won't know to do so without your list... so get it to Guy somehow.. He said you could drop it by the ice plant if you want or you could mail it to him.

***** NEW FREQUENCY *****

It was decided at the last meeting to change the OKDX frequency to 147.000. This was due to the interference that was being caused around 146.000. There is always someone that Well anyway the new frequency is 147.000. As of this writing it has worked out quite well for everyone. So, come up on the frequency and find out what dx is running around...

Along with the other items discussed at the meeting, George (AD1S) brought his album of QSL cards. Didn't bring all his cards only the ones that count for a country for him. Still there was well over 250, so you can see there are people there that can and do help the rest of us, by the way George doesn't have the largest total of countries of folks at the meeting ... there were some "BIG GUNS", including George at the get together.

As promised Henry (N5IH) brought his cross reference file for all to look at. He explained, to those that would listen, how it works for him to know when he has worked a new country, when the qsl went out, and also how sent. (direct with irc's or money, or by the buro or some other way) It also shows on which bands the country was worked.

George (AD1S) also told us about the proper way to send and receive qsl cards thru the buro. (Ever wonder why your call is on the back of some of the cards you receive?... well George explained that one to us also)

As we mentioned before we will list all the up-dates on needed countries, as far as the new ones you work, here in the C&E for all to congratulate you on, but again nothing is going to do any good until your list is in the hands of all!!!

***** ON NOW OR SOON *****

VK4NIC/3X- is back on most days. Look for him on 28.735 1530z and a list taken by W4FRU will be run about 1700z. You might also find him at 2030z for a list operation by W7PHO around 21.255-----QSL's go to W4FRU

PY0 St. Peter & ST. Paul never showed, but do not give up hope. They are still supposed to show someday... so be ready.

OY5R Has been showing up on the Africaner net with regularity. 21.355 at 1700z



WEATHER MEETING

CHANNEL 9 FEBRUARY 17th AT 7:00pm BE THERE !!!!!

5R8AL This one is still showing at times, but rumor has it he is going to be mostly on RTTY and CW. As a matter of fact rumor says no more sloppy side band!!!

4W This one is not dead yet, well we hope no. The American that had been there and was operating from J28 has not been heard from lately.. His last words (hearsay) was I'll operate from 4W if it's the last thing I do.

ZA This one is supposed to be a sure one to show up the first part of the year...

ZL3AFH Auklan should be on soon keep a watch out for this one...

9U5JM This is supposed to be a legit station from 9U, but we will have to wait and see. The word was it will show on the Africaner net on 15 meters.

Well, I guess that is about all for now. Be sure to monitor the OKDX frequency every Friday, at which time the QRZdx bulliten will be read over the air. The time is 7pm local and the station doing the honors is AD1S. So, tune in and listen.

I would like to thank every one that has been coming to the meetings. We are not very well organized as of yet, but we will try to cover any area of HFdx that anyone wants to know about. We have a great wealth of information to draw from, so let us hear from you on what you want to hear about...

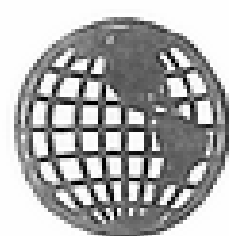
***** MEETING *****

Don't forget the next meeting will be on February 9th at 6:00pm local time at the Colony Kitchen on North MacArthur Blvd. Please bring a friend and let us grow. Talk up the OKDX on all the local repeaters and lets let every one know who we are and what we stand for.

***** SEE YOU ON 147.000 *****

For Sale: The ultimate Receiver. The Kenwood R-820. The goodies on this receiver are too many to mention. I have all manuals, and cables, along with the boxes. If you are looking for the best here it is . \$900 takes it home call Henry N5IH at 722-3848 or during the day at 843-1721.

For Sale: ICOM IC22s This radio also has the external switching unit. Fully synthesized, with Drake encoding mike. The works for \$200. call Henry N5IH 7223848



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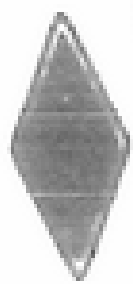
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R. B. WANGLER, W5EDZ, DIRECTOR, WEST GULF DIVISION

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The new year is always a suitable time for us to review where we are and what we plan for the months ahead. This new year may require more involvement by each of us in amateur radio. We each have a particular interest which is good, but on occasion it is necessary that we take a broad look at amateur radio. We must consider the long range picture of things to come that will benefit all of us in amateur radio and our activities in the fields of communications and public service.

There are several dockets plus a number of RM's pending at the FCC. Some have not been released for comment at this time, while others have been out and the time for response has passed. Two of these addressed an expansion of the HF sub-bands for additional phone privileges. These expansions were entered by members of the amateur radio community in the United States. Any one may propose a recommendation to the FCC if it is in the proper format and they will publish it for a response for possible rule making. It is difficult to monitor and understand all of the things that are proposed for rule making without guidance and interpretation from an inside information source as our Washington coordinator, Mr. Perry Williams who serves amateur radio by reviewing these RM's and all items from the FCC. These latest proposed expansions of the phone sub-bands have met with very little interest on the part of the FCC and it is not expected at this time that action will be taken on these proposals.

There is one RM that is still under consideration and that is the expansion of the 40 meter sub-band for additional phone privileges from 7.075 to 7.100 MHz. I will make it known through the traffic system when this one is released for comment, and you will have 30 to 60 days to respond to it according to your wishes and interest.

There is another item that continues to be discussed and is being circulated through the FCC channels at this time. That is the "experimenter class license" and I plan to watch it very carefully. This class of license you may recall was discussed last year and it is still under consideration at the FCC. This is a code free license with a written examination similar to amateur radio examination for technician or general class level. It will have all the appearances of an amateur radio license except no code requirement. I know that most of you reading this newsletter and those of you that are hearing it at the club meetings join me in seeing to it that our base line for communications when the chips are down continues to be CW. We must maintain CW as part of our prerequisite for any class of amateur radio license. The fact that they tag "experimenter" on the license and restrict it to certain portions of the spectrum really does not change the basic concept. I ask each of you to remain consciously aware of this item to come out later as a RM. I will use the traffic system to let you know when the RM is released. If necessary, a special newsletter to all of the affiliated clubs will follow. Keep alert for this one as it is worthy of note.

As your director in the West Gulf Division I have been giving serious consideration to a mechanism by which we will have better access to each other in the way of communications. I must have better access to you in the division for your comments as apply to improving amateur radio. You also must have a way of getting information to me. Hopefully this could be reflected nationally and benefit the many activities in amateur radio such as malicious interference, the biological effects of radio frequency energy and many other things that we are continuously in need of feedback from the members. We need a means of answering questions and receiving comments from the amateur radio community in this division. In order to do this, I am working on a plan to divide the West Gulf Division into "districts". The title "district" may not continue, but I am looking for suggestions. I plan to divide the division for better liaison purposes with my office and the vice director. I hope to have most of the details worked out for the April newsletter.

The districts I am now considering will be centered around principal cities in Oklahoma and Texas as follows: Oklahoma City, Tulsa, Lawton, Muskogee, Enid, Ada, and in Texas, Amarillo, Wichita Falls, Dallas, Fort Worth, Greenville, Odessa, El Paso, Abilene, Houston, Beaumont, Brownsville and San Antonio. This is a tentative list and certainly not all inclusive, but these cities look to be a good starting point. Others will be added as necessary to serve new clubs as they become affiliated with the ARRL. It is my intention to have an assistant director appointed by me in each of these districts. The assistant director will be available to represent your wishes, and to meet with you at club meetings. Your club, and you as members of the club, will know through these published newsletters the current information for you to discuss with your assistant director who is in your immediate area. Hopefully you will be able to reach him on the local VHF or UHF circuits between club meetings to discuss areas of concern. I in turn will be in contact with the assistant directors through the traffic nets and by telephone when necessary. The assistant director must be interested in amateur radio and its advancement. I would appreciate your sending me names of anyone you would suggest for the job. I will personally contact them, first in writing, and then discuss with them over the phone the responsibilities of the appointment as assistant director to work with the development of this program within the division. Your assistance will be appreciated and will be a help to me in selecting the best person who is qualified for this work within the division.

I have two requests to make of each of you that read or hear of this newsletter. 1. If you have suggestions on things that are going on within our amateur radio community at this time that you feel are worthy of board consideration, that you please communicate this to me at your earliest possible time so that I in turn may prepare a motion or a comment at the board meeting for consideration in March at Orlando, Florida. I would like to have as much information from the members as possible. The clubs that receive this newsletter are asked to bring the topics of concern up at the club meeting and give me some indication from the membership present at a meeting how many are in favor of a recommendation and how many are apposed to it so that in turn I can represent the wishes of the majority of the members at the coming board meeting. In this manner you will have a voice in the actions that I take for you at the board meetings. 2. I need from you the names of active radio amateurs in your club that may have an interest in working with me at the division level. Please send me the name and address of anyone you think may be interested and have the time. I will contact the person and discuss the program. Ladies interested in these areas are welcome to apply as they are not limited to the boys.

There is a continuing need for growth in the membership of the American Radio Relay League. The FCC in looking at the amateur radio population unfortunately look at total numbers and not necessarily the quality or the type of service rendered by a particular group within the organization. We know that this is not correct but by the same token, we can do very little to change how they look at things. We need to bring into our ranks many of the amateur radio population that are not now members of the ARRL for one reason or the other. This can be accomplished through your effort where you have personal contact with these people at meetings and other gatherings if you would emphasize to them our need for oneness and unity. We need quality in amateur radio and not quantity. We have near 30,000 hams in the West Gulf Division of which only about 10,000 belong to the ARRL. We need to work together to increase our number in 1981 to 15,000 or 17,000. We in the ARRL could truly represent the majority of the amateur radio population within the West Gulf Division. Your assistance and your help in this area is necessary for continued growth with qualified and interested people to be representative of our activities to the FCC when major issues come before the commission for consideration.

73

Ray Wangler

FOR SALE: FT-202 Yaesu handi talkie complete with wall charger and rubber duckie. \$140.00. WD5JNT Ted 262-1675.

TO KNOW ICOM IS TO BUY ICOM (They've Got You by the Accessories)

Just when I thought that I had made my last investment in my Icom Walkie-Talkie, I find out that there are more accessories for this miraculous device. When Icom sells you a radio, they don't worry about their profit margin, they know they got you by the accessories. I now have an Icom IC2AT, a BP3 Battery pack, BP4 Battery Case, a BP2 Battery pack and a mobile charging cord. Who could ask for anything more? Icom can of course. They now have a battery charger that charges all of the battery packs and automatically rapid charges those batteries that need rapid charging and will not rapid charge those batteries that shouldn't be rapid charged. Of course, we have already written about the BP5 battery pack which is a high voltage high capacity battery pack. Oh, yes, I forgot that I also have a BC-25U Wall Charger. Now so far, we have accounted for the BP2 through BP5 battery options. This begs for the obvious question, what is 1?

The answer was provided by K5JB who showed me a battery pack that felt awful light. What's in this thing? JB replied, "A regulator. It is made to be used with the CP1 Cigarette Lighter cord and plugs into your car and eliminates the battery by regulating the car voltage down to the proper voltage. After a little dissection, Joe produced the schematic of the regulator as follows:

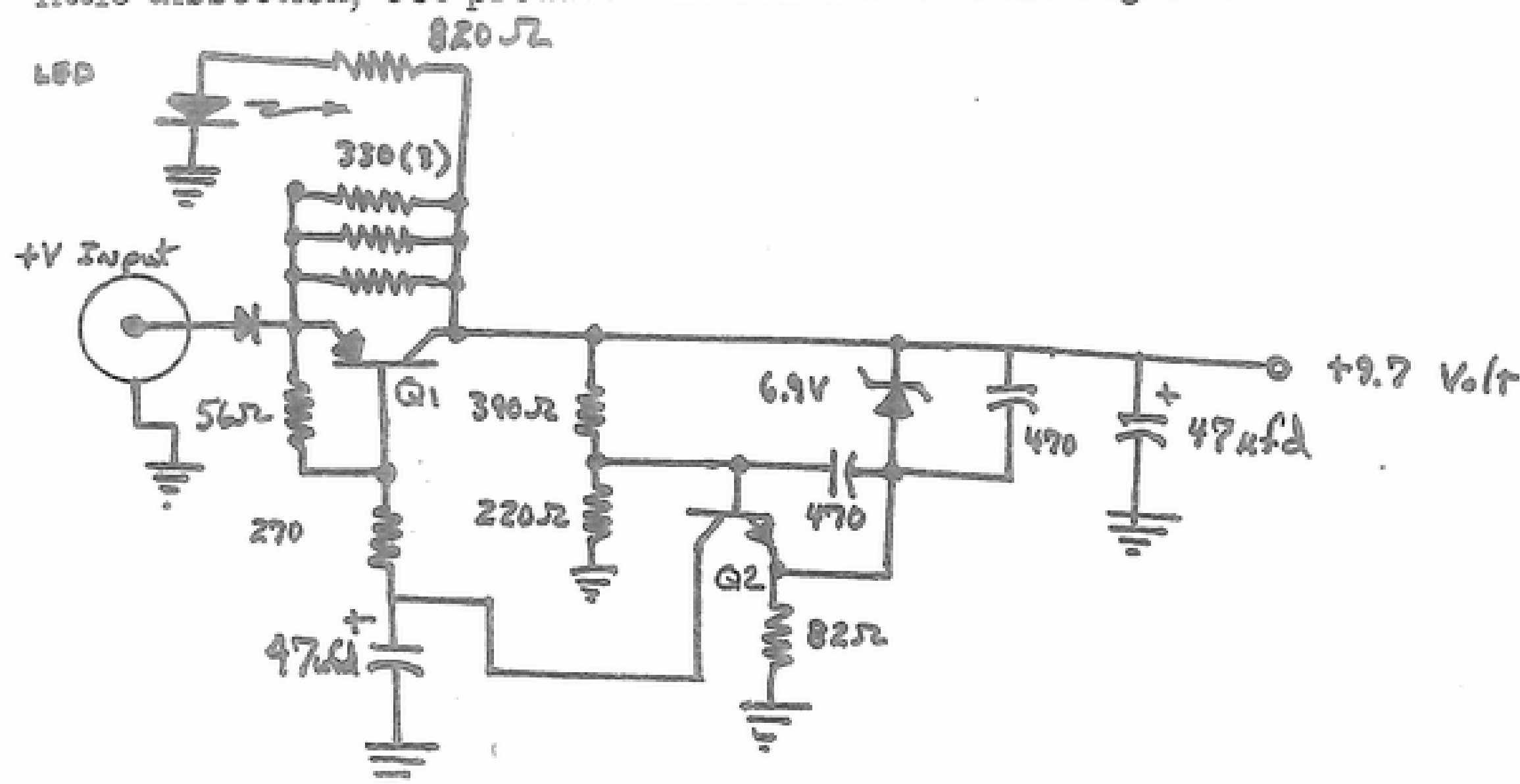


FIGURE 1: Icom IC-DC1 DC Regulator.

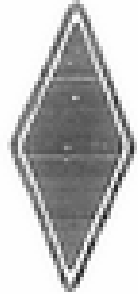
As the voltage output starts to increase, Q2 begins to turn ^{off (ed)} on and takes away drive from the pass regulator transistor Q1. Icom always has a neat idea or two for circuits. The use of the DC regulator is obvious. By interfacing the radio to the car battery, the IC2AT becomes a mobile rig. With an external antenna and amplifier, you have a fairly decent transceiver in a space just a little larger than a microphone.

The Icom emphasis on accessories has made a nifty little radio even better. The slide on battery offers considerable versatility to the radio and is almost a necessity with a current hungry receiver. Neato. Again.

Micheal Salem N5MS

FOR SALE: You drive it off the lot. A complete Drake (you know, made in America) Station, 160 through 10 Meters, in excellent condition. Includes T-4XC Transmitter, R-4C Receiver with Noise Blanker, C-4 Console (rare item), MS-4 Speaker, AC-4 Power Supply. Complete Station for \$800.00.

CONTACT JOHN FAGAN, WB5FZD, 364-3447.



THE AMERICAN RADIO RELAY LEAGUE, INC.

OFFICE OF THE
SECTION COMMUNICATIONS-MANAGER

LEONARD HOLLAR WA5FSN

QST—
OFFICIAL ORGAN

Another year has past and the New one is all ready a month old. I feel that 1980 was a good year in Oklahoma. Much has been done to improve the Amateur Image here in Oklahoma. Among these are the various Public Service Activities. Prime among these is the excellent work done with the National Weather Service.

According to information at hand: We will soon see Repeater linking to the outlying points in Oklahoma. Implementation of these links will further our ability to provide N.W.S. with even more and better 'On the Spot' reports. On the other side of the coin. It will enable many of our people to receive better information to aid their own C.D. Officials. Not only is work being done to the SouthWest of Oklahoma City. But, out to the NorthWest, work is being done to link Amarillo to the Texas Panhandle and on North to N.W. Okla. and S.W. Kansas.

Much of this will be discussed at the Oklahoma Repeater Society Meeting at Altus, Feb. 7th. C.U. There.

Traffic Handlers. Food for thought: Remember it is more efficient to send a message once at 18-20 wpm than to send the message plus fills at 25-30 wpm.

Paul Brown, W5IQL had 100% QNI on O.T.W.N. Congratulations
December Traffic.

3644 Pieces of Traffic reported handled by 30 Oklahoma Operators. F.B.

NETS	Sessions	QTC	QNI	WX
O.P.E.N.	4	23	257	
O.F.O.N.	23	157	421	
S.T.N.	27	129	540	
O.T.W.N.	27	287	491	268
O.L.Z.	31	124	232	
Night Owl	31	78	701	
Q.C.W.A.	4	6	145	
Pott. Co.	9	46	90	
N.W.O.S.	13	6	198	

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WEATHER MEETING CHANNEL 9 FEBRUARY 17th AT 7:00pm BE THERE !!!!!

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 W 682-4622, H 681-0133 (NATIONAL WEATHER SERVICE)
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 W 478-1212 ext 225-6, H 755-4672
- 11-K5WUF DALE DIEHL 3912 N.W. 59 OKC 73112 H 943-5438
- 12-WA5TAR SID ROSE 3812 N.W. 27 OKC 73107 W 424-5551, H 946-5719
- 13-W5HXL BOB ASHBY 2837 N.W. 19 OKC 73107 H 942-5375
- 14-K5SJV DON ROOKER 7014 N.W. 61 BETHANY 73008
 W 789-5000 ext 424, H 721-2119
- 15-WD5IDB HOWARD WISE 124 W. WAYNE EDMOND 73034
 H 341-2510, A 341-4573 (EDMOND CIVIL DEFENSE)
- 16-WA5HTL PAUL ASPLIN 6902 N.W. 57 BETHANY 73008 W 521-2861
- 17-WA5PDH MIKE McELROY 5509 N.W. 66 OKC
 W 525-8991 & 232-1234, H 722-2466 (AMCARE)
- 18-K5JB JOE BUSWELL 3312 N. IDYLWILD MWC 73110
 W 329-8920, H 732-0676
- 19-KA5DCM JERRY WETMORE 813 N.W. 21 OKC H 524-5080
- 20-WD5DYJ KAY NORTHCUTT 1509 W. BARCLAY (9600N) VILLAGE 73120
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- 21-WD5BMP JOE COUCH ROUTE 5 BOX 258 GUTHRIE 73044 H 282-4355
- 22-WB5TDW JOE RAMAGE 4401 S. AGNEW (2300W) OKC 73132
 W 231-6052, H 685-4814
- 23-KB5BS BILL SKIPPER 7001 N.W. 42 BETHANY 73008
 W 947-3361, H 495-6946
- 24-WB5CTS STEVE HUTCHERSON 6424 N. PENIEL #41 (6400W) OKC 73132
 W 848-7593, H 721-8064
- 25-W5FLO NORM WILSON 601 E. ARBOR DRIVE (400N) MWC 73110
 W 231-4607, H 737-0258
- 26-WB5TMW DICK BAKER 2400 S. MAC ARTHUR lot 203 (5900W) OKC 73128
 W 272-3396, H 685-2867
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 W 848-8551, H 789-7810
- 33-N5AZO JOHN HARAZDA 1905 JANEEN YUKON 73099
 W 427-8371 ext 279, H 354-5865
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 W 525-8991, H 947-5347 (AMCARE)
- 35-WD5HRW OSCAR LOFSTROM 5109 N.W. 19 TERRACE OKC 73127 H 947-3685
- 36-KA5DFV ALVIN FARREL 4324 S.E. 16 DEL CITY 73115 H 677-6587
- 37-N5FM FRANK MC COLLOM 2421 N.W. 118 OKC W 947-6603 H 751-3577
- 38-WD5EXY BILL MC MULLIN 2011 W. HUNTINGTON (6700N) NICHOLS HILLS
 W 781-3411, H 842-7537
- 39-WB5RRZ JOHN BEATTY 8404 N.W. 101 OKC 73132 H 721-5395
- 40-WA5JGU CHARLIE GREENE 3028 N.W. 33 OKC 73112 H 943-5631
- 41-WD5IWZ LYNN SHEARER 10508 N. GREYSTONE (2500W) OKC 73120
 W 341-8551, H 751-9500
- 42-WB5SVN JACK IMAN 1025 S.E. 42 OKC 73129 W 686-2403, H 677-8537
- 43-WB5RUP ALVIN HALL 2508 N.W. 58 PLACE OKC 73112
 W 848-7571, H 843-6890
- 44-WD5IDE HARRY SCHOENHALS 4411 N. CENTRAL (6500W) BETHANY 73008
 H 789-6433
- 45-W50ZE TOM STINSON 2721 N. LYON BLVD. (3900W) OKC H 942-3714

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ALERT MESSAGE: (TO BE RELAYED TO ALL MEMBERS)

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ALERT PROCEDURE: 1 CONTACTS 2 AND 3, 2 CONTACTS 4 AND 5, 3 CONTACTS 6 AND 7, ETC. HOWEVER, SUPPOSE 1 CAN'T REACH 2, THEN 1 ALSO CONTACTS 4 AND 5, AND IF 1 CAN'T REACH 4, THEN 1 ALSO CONTACTS 6 AND 7. IN OTHER WORDS, IF YOU CAN'T CONTACT BOTH OF YOUR PEOPLE, THEN YOU ASSUME THE DUTIES OF THE ONES YOU CAN'T CONTACT.

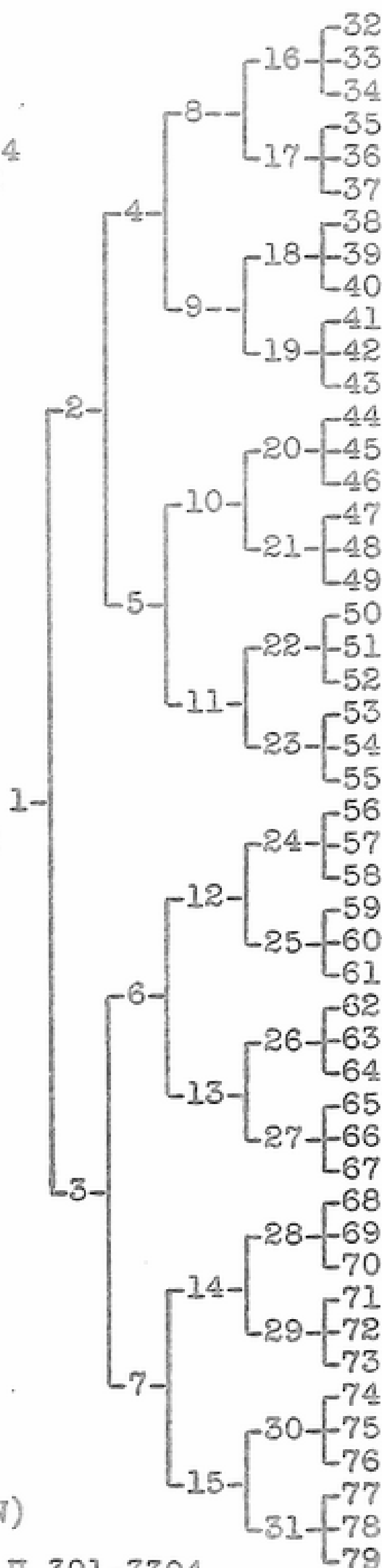
ANYONE WANTING THE NET ACTIVATED SHOULD START AT THE TOP OF THE ROSTER AND STEP DOWN ONE AT A TIME UNTIL CONTACT IS MADE WITH SOMEONE, AND THEN ASSUME THE DUTIES OF THE PEOPLE YOU COULD NOT CONTACT. EXAMPLE: IF YOU COULD NOT CONTACT 1, 2, 3, OR 4, BUT YOU DID CONTACT 5, THEN YOU SHOULD ALSO CONTACT 6, 7, 8, AND 9. (SEE CHART AT RIGHT AND YOU WILL UNDERSTAND WHY.)

PLEASE CHECK THIS ROSTER VERY CAREFULLY !!! FOR CORRECTIONS, ADDITIONS, OR DELETIONS, CONTACT ANY OF THE TOP FIVE ON THE ROSTER.

REMEMBER: THE OKLAHOMA COUNTY EMERGENCY TRAINING NET MEETS ON THE 16-76 REPEATER EVERY MONDAY AT 9 PM. EVERYONE IS WELCOME AND WANTED. ALSO PLEASE JOIN US AT OUR FACE TO FACE MEETINGS ON THE 3rd. MONDAY OF EACH MONTH. COME IN THE WEST BACK DOOR OF THE RED CROSS BUILDING. (323 N.W. 10) (7 PM.)

(ROSTER CONTINUED)

- 46-WD5KFT CLARA STORM 6718 N.W. 30 TERRACE
BETHANY 73008 H 495-6228
- 47-WB5PNH TONY HOLZMAN BOX 326 RT 2C11
CHOCTAW 73020 H 391-3398
- 48-KA5ALO RICHARD EDWARDS RR2 BOX 14-G
CHOCTAW 73020 W 734-2450, H 390-8297
- 49-WB5SLA MARK NEWTON 8833 N.W. 80
YUKON 73099 W 848-8647 ext 249, H 722-2607
- 50-K5HQP MARVIN WHITE 2108 S. POST ROAD (10000E)
MWC 73130 H 732-8133
- 51-W5NBH TINY IRWIN 4345 S.E. 12
DEL CITY 73115 H 677-1309
- 52-WD5IHF CHARLES JAY 6217 S.E. 9
MWC 73110 H 732-6275
- 53-W50EC ED DUCLOS 8209 W. GOLDEN OAK ROAD (1400N)
OKC 73127 W 232-2362, H 495-2797
- 54-AB5H FRANK CARTER RT 2 BOX 338 CHOCTAW 73020 H 391-3394
- 55-W5NZS LARRY HAZELWOOD 700 N.W. 48 OKC 73118 W 842-4403, H 848-6400
- 56-KA5GTM DENNIS MUSSER 3221 S.W. 74 apt C OKC 73159
W 682-7548, H 681-0937
- 57-K5YAO CLARENCE SITTEL 2633 N.W. 45 OKC 73112 W521-2674, H 947-4015
- 58-N5AWI LESTA LOVE 4517 S.E. 27 DEL CITY 73115 W235-8661, H 677-1078
- 59-WB5SQC GENE HALLEY W 686-2197
- 60-KB5RR CLARENCE DOLLMAYER 2229 HUMMINGBIRD LANE EDMOND 73034
W 848-6631, H 341-7163
- 61-K5SKA BILL DE MAND 2317 N.W. 121 OKC 73120 W341-2980, H 751-5137
- 62-W00HD R. L. RAY 13 E. JANICE#102 YUKON 73099 H 354-6241
- 63-W5GNV GARY KNAPPLE 308W. JARMAN DRIVE (500S7000E) MWC H 737-2962
- 64-KB5KT DAVE BAUGH 3913N. SHANNON (8300W) BETHANY W734-4114, H 787-4183 (MARS)
- 65-W5WZM "MAC" MC CLURG 309 TIM HOLT DRIVE HARRAH 73045 H 454-2381
- 66-WA5VTH RICHARD ANDERSON 816S. ELLISON EL RENO H262-5253 (EL RENO CD)



THE N5MS "DRINK-A-TALKIE" -EXCLUSIVE COLLECTOR AND EMITTER
CONSTRUCTION ARTICLE (Or How to Join the Chivas Generation)

Upon gazing upon the outside of my new Motorola HT-220 Potable (er, Portable) radio, one might come to the conclusion that all one needs to do to make it operate is just grab it up, twist the knobs and kerchunk the local repeater. However, this is the first radio that I have ever seen that works best when the antenna is taken off! For a complete demonstration, please refer to the picture shown on the opposite page. Just screw off the rubber drunk (ahh, make that ducky) antenna and this intrepid radio offers immediate access to 200 ml of your favorite beverage. Wow! Talk about undercover, this radio is ideal for those long lonely nights on surveillance when you find yourself beginning to establish a meaningful relationship with the mobile charger.

But as K5JB says, "I don't drink as a rule, but more as a habit." Besides, it is always easier to get the conversational ball rolling when you pour a friend a high ball out of your radio. The radio is great for those cold football games when the guards at the door of the stadium cast a suspicious eye toward any container containing liquid. Hey Buddy, this is jest my radio! Nothing dangerous here. I know it gurgles when you shake it, but shucks that's because I dropped it in a puddle last night. I'm going to dry it out during the game.

Actually, the genesis of this construction project came from K5HMD who told me many years ago about a HT-200 that Squeak, a friend of his from Las Vegas, had duded up to carry liquids. Now, I think that a Motorola HT-200 would probably hold a good half pint. I am a cheap drunk and wanted to update Squeak's radio to a HT-220. Years of scrounging in the flea market had left me with a clear excess of HT case parts. In addition, Dean and Bruce down at TD's provided me with some scrap plastic they had left over after converting some radios from short length to PL length. I spent considerable time hollowing out a omni case sleeve before I decided to build up only a slimline flask. I already have a couple of omnis with radios in them. The first detail was to scrub and rub the inside of the parts clean. Then I began to apply a couple of coats of RTV cement to the inside of the case parts to act as a "bladder" for the liquid. Incidentally, I used remote speaker parts so I would not have to worry about sealing the speaker hole. This could be easily done by cutting a circular piece of plexiglass and gluing it across the speaker hole.

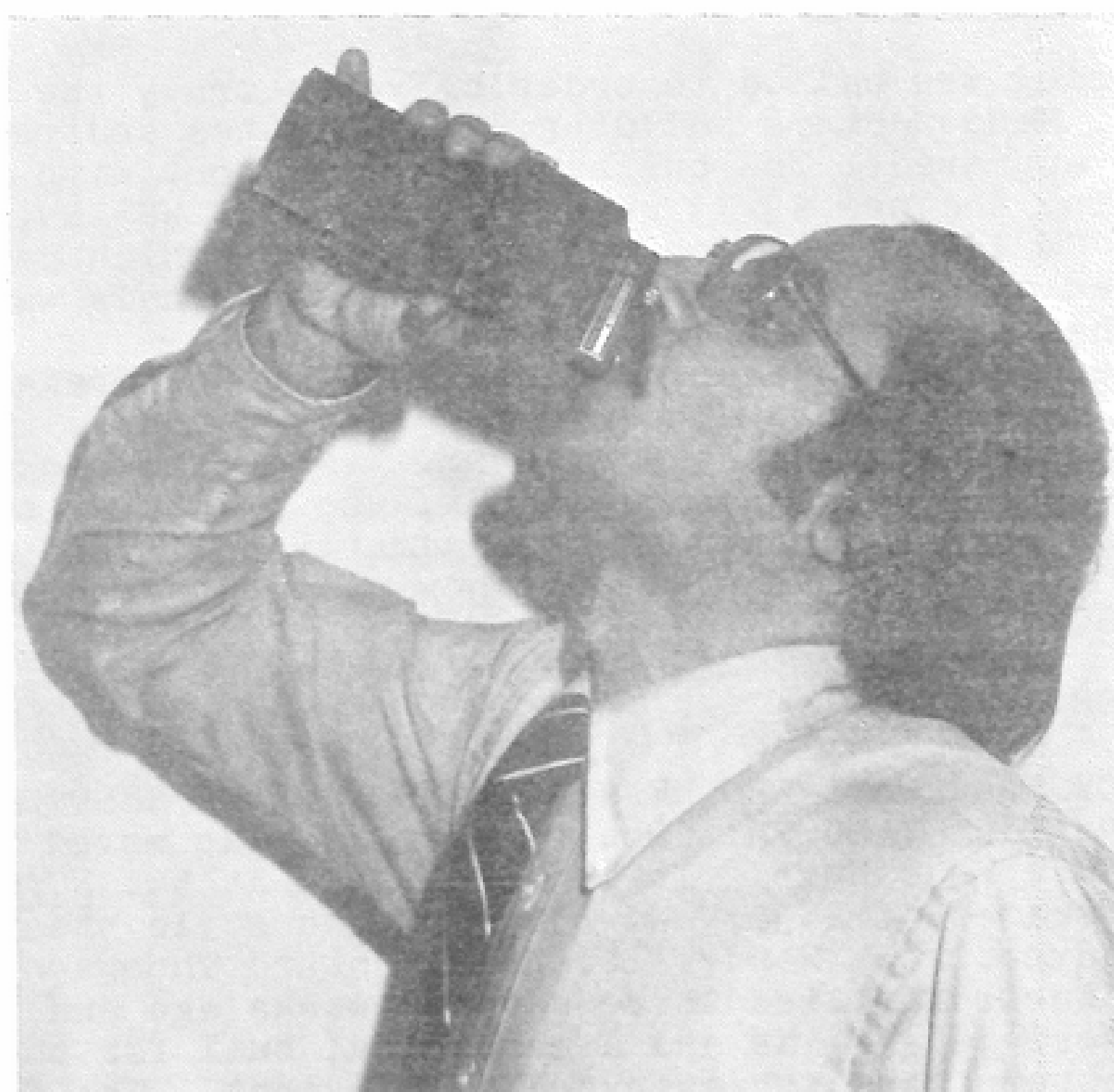
I then removed the battery charging clips from the bottom of the radio and sealed the holes with more RTV. I would generally let the parts dry for a half a day or so before proceeding to the next coat. RTV (Room Temperature Vulcanizing) is essentially an inert silicon glue when it dries. The distinctive odor that it gives off when drying is nothing more than acetic acid (vinegar in your block). Upon experimentation, I have found that scotch will slightly dissolve the lexan plastic of the distinctive blue motorola case parts. The solution is to only put liquid in the radio when you intend to use it and be sure to coat as much of the plastic with RTV as possible when assembling the radio. I glued some screws where the volume control and squelch adjust would be, then covered the inside with RTV. I used regular motorola knobs and cut the screws to length.

In the credit where credit is due department, I want to thank Brad Hackler of the Backyard Racing Association for our cover photo and the two inside pictures. This is Brad's second cover for us and although he doesn't have his license yet, he does have some great photographs that we can't talk about. For your own copies, send 25¢ in coin to Merkle Press, Washington, D.C. The half-tones were made by our own lovable Jim Shideler WB5YWO of Stillwater, Oklahoma. Shideler has threatened several times to sit down and write an article for the C & E, but the result is still goose egg. Maybe next time.

Micheal Salem N5MS



NEW MOTOROLA POTABLE "Drink-A-Talkie" operation is demonstrated in above photograph. Not absence of Rubber Drunkie antenna. Radio actually works better without antenna!



SPECIAL HIGH POWER "gurgle" modulation operation of "Drink-A-Talkie"



Edmond Amateur Radio Club
P.O. Box 76252 / Okla. City, Ok. 73147

WRITTEN AND EDITED FOR
EARC BY STAN VAN NORT,
WB5UIY. OTHER COMMENTS
ARE WELCOMED.....



NEW CLUB OFFICERS: Stan Van Nort, President; Dennis Orcutt, Trustee; and Bob Shaw, Sec/Treas. Not Pictured: Wendell Cochran; Vice-President.

REVIEW OF JANUARY MEETING

The meeting was called to order by yours truly the new President, at the T.G.&Y. Headquarters building. The minutes and treasurer report were read and approved. The business was very short with the only main topic being the new 93/33 repeater. Dennis, WB5ISN, made a motion to purchase a CW Identifier for the new machine, which passed easily. There have been some problems with intermod and Dennis was checking into curing that problem.

There were some new faces present such as Ron Bragg who hasn't come by in 6 months. Two of the regular heavy-weights, Larry Dillard and Howard Thompson were quietly missing. (No pollock jokes) We have a new member, Bill Boland-KA5ESA, who joined at the meeting. This should put our membership at approximately 44. This means we have about 6 opening for new members. Any new prospects should contact Bob Shaw, WA5BQX.

FEBRUARY DINNER MEETING

EVERYBODY TAKE NOTE-THE NEXT MEETING WILL BE HELD ON TUESDAY FEBRUARY 3, 1981, at 7:00 PM. The regular day was moved to make arrangements for the dinner. It is being held at the STAMPEDE

RESTAURANT, located at 2932 N.W. 63rd. Texas style steaks and fun is what they advertise. Wendell Cochran, Howard Thompson, and Stan Van Nort took their families there several weeks ago and had a real good time. There is a slide and a mechanical bull for the kids, and a country & western band for everyone's enjoyment. The food and steaks are good, but a little high-so be prepared. Be sure and try the Bordertown Rattlesnake Meat.

Mark it on your calender, it will be a meeting you shouldn't miss. Further details will be annouced on both repeaters. Next months meeting will again be held on the first Monday.....

MDS-MULTIPOINT DISTRIBUTION (OR MIGHTY DUMB SYSTEM)

Recent news stories in the local media have indicated that the war between the local MDS distributor (TVQ) and "bootleg" viewers of their service has heated up. The source of all this heat and not much light has been a recent series of articles in the Daily Oklahoman and various news reports on local radio and TV stations. More importantly, legitimate amateur radio users may be the losers or certainly the receptors of some unwanted, unexpected, and unfair publicity.

Apparently, TVQ solicited some assistance for their war against bootleggers from Assistant United States Attorney John Osgood in the "prosecution" of "unauthorized non-subscribers." I called Osgood and while he declined to provide me with a copy of the letter he had sent to TVQ, citing privacy problems, he did acknowledge that Laird was widely disseminating the letter to people with "microwave receivers" perched on their houses. TVQ also sent the following cover letter with a copy of the letter provided to them by Osgood. I reproduce copies of both these documents provided to me by Jeff Laird, Jr., attorney for TVQ Systems:

TVQ

December 3, 1980

Dear Resident:

We have observed at this address what appears to be a device capable of intercepting M.D.S. (microwave) transmissions. In Oklahoma City, the only MDS transmissions are those for TVQ's Home Box Office subscribers. We have examined our list of subscribers and your address does not appear.

If, in fact, you are receiving our H.B.O. programming, you should be aware that such reception by unauthorized non-subscribers is a violation of federal law as set forth in the enclosed letter from the United States Attorney's office here in Oklahoma City.

Please review this information. It should answer any questions you may have concerning the illegality of such unauthorized reception. If you are receiving our programming, please cease such activity immediately and remove the device from your home.

You should be aware that we are monitoring the situation in this area, and will advise the United States Attorney as to our findings.

Yours truly,

RICHARD F. BURBIDGE
Vice President

RFB:csa
enclosure

OKLAHOMA REPEATER SOCIETY MEETING SCHEDULED

THE OKLAHOMA REPEATER SOCIETY IS INVITING ALL INTERESTED AMATEURS TO ITS REGULAR WINTER MEETING TO BE HELD SATURDAY FEB. 7, 1-3 P.M. AT ALTUS OK. THE MEETING WILL BE HELD AT THE E.O.C., 1971 N. MAIN, IN BASEMENT OF FIRE STATION. TALK IN FREQUENCIES WILL BE 146.19/79 AND 146.52. BESIDES THE REGULAR BUSINESS MEETING, THE ALTUS AREA AMATEURS ARE PLANNING A DETAILED REPORT ON THE ALTUS-OKLAHOMA CITY REPEATER LINKING PLANS. A BACK-UP DATE OF FEB 28 HAS BEEN SELECTED IN CASE OF BAD WEATHER. K5JB



U.S. Department of Justice

United States Attorney
Western District of Oklahoma

4434 United States Courthouse

200 N.W. 4th Street

Oklahoma City, Oklahoma 73102

405/221-5281

FTS/736-5281

November 20, 1980

Mr. Jeff R. Laird, Jr.
Attorney At Law
Laird, Laird & Heller
4300 Classen Boulevard
Oklahoma City, OK 73118

RE: Illegal Intercept of MDS Signals

Dear Mr. Laird:

In response to your recent inquiry, I have researched the law concerning interception of MDS Microwave Transmissions (Home Box Office) or similar microwave signals. Since MDS Microwave Service is a licensed common carrier (the same as the telephone company) and all equipment used by Home Box Office is "type accepted" and/or "certified" by the FCC, including your receiving unit, interception of your signal by unauthorized non-subscribers is a violation of federal law.

Because of your status as a common carrier, you have a protected and reasonable expectation of privacy that your signal will not be intercepted just as a citizen expects that his telephone calls will not be intercepted or "bugged" when he calls a friend or business associate long distance and that conversation is transmitted by microwave.

Several provisions of Title 18, United States Code (Criminal statutes) and Title 47, United States Code (communication act) speak to this problem. Under these provisions, an extracted copy of which is attached, possession, sale, distribution, use, dissemination and resale of your signal and any non-type accepted receiver unit are punishable as potential felonies. In addition, you will note that these statutes also provide for seizure of illegal receivers and the television set to which they are attached. Finally, substantial fines can be imposed on violators.


You have indicated that there may be a number of non-subscribers presently using either home-made or apparently commercially produced equipment to intercept your signal. Such illegal interception is very easy to detect since such units must be stationed on roofs in line of sight with the relay station. I have spoken with the responsible investigative agencies and they have promised their support in the event the problem necessitates prosecution. In this regard, I have asked that a survey team plan a visit to Oklahoma City in the next 30 days to evaluate the problem.

Apparently, some dealers in the electronics industry are manufacturing these receivers and marketing them through fraudulent representations, that is, the buyers are not being fully informed as to the illegality of

the device when used to intercept MDS signals. If you are personally aware that any particular individual is in violation, you might so inform him and ask that he cease such activity and remove the unit. I think this is the fair approach, as many persons may not realize they are in violation. Of course, once a violator has been specifically informed of the potential risk, continued violation will most likely result in prosecution.

I hope I have answered your questions. Please be assured that you will have our full cooperation in enforcing the law.

Yours very truly,


JOHN R. OSGOOD
Assistant U. S. Attorney

JRO:cg
Enclosure

I am disturbed by what is going on here. Let's first look at the letter from TVQ. While TVQ may be the only MDS distributor in Oklahoma City, 2 Ghz service is not limited to TVQ. There are a variety of other services available (including the 2300 Mhz amateur band) that might require a "microwave" receiver. Paragraph 4 of the letter from Osgood indicates that nonsubscribers are "easy" to detect since "such units must be stationed on roofs in line of sight with the relay station." Not everyone who stations a microwave receiver on his house is the beneficiary of "illegal reception." The question here is "Is the presence of a microwave antenna on a person's house probable cause for the issuance of a search warrant to search your house for illegal equipment?" The letter from the U.S. Attorney implies that the presence of the antenna is a violation of the statute since that is the method of "detection." When I spoke to Laird, he was unaware that amateur radio operators have a band allocation at 2300 Mhz. Both Laird and Osgood said that amateur radio operators had nothing to worry about if licensed properly and receiving signals in the proper band allocation. But if we "detect" wrongdoers by the presence of microwave antennas, we also subject the legitimate amateur operator to scrutiny who must then prove himself innocent by a demonstration of his equipment and legitimate operation. It was my understanding that a person was innocent until proven guilty and has no burden of ever proving his innocence. Rather, it was his right to force the government to prove him guilty beyond a reasonable doubt. We offer no lesser standard to the murderer or robber. Why should it be diluted for the legitimate amateur radio operator?

Even if amateurs need not fear prosecution, what about the effect that such dissemination has on the general public. There is no question that TVQ engaged in a conscious campaign of scare tactics designed to create paranoia among the public. The widespread dissemination of the letter and the "dragnet" operation of TVQ in notifying apparent nonsubscribers received so much play in the local press and electronic media that the general public is "aware" (wrongfully so) that the presence of a microwave antenna is a "violation of federal law." How would you like to confront that when investigating a TVI complaint or making a presentation to the local city council against a tower ordinance, or lobbying a radio or tv station for tower space for the local repeater organization.

TVQ is a common carrier which is essentially a "transmitter for hire." Common carrier is defined by Title 47, U.S.C. Section 153(h) as:

any person engaged as a common carrier for hire, in interstate or foreign communications by wire or radio or in interstate or foreign radio transmission of energy, except where reference is made to common carriers not subject to this act; but a person engaged in radio broadcasting shall not, insofar as such person is so engaged, be deemed a common carrier.

To illustrate what a common carrier is, think of it as an ordinary bus service. Someone owns the bus and rents it (for a fare) to someone who wants to ride it. Everyone must have equal access to the common carrier. TVQ is a division of Movie Systems, Inc. One or the other of them owns the transmitter. The other rents the time on the transmitter to run HBO transmissions. As such, the owner of the transmitter must, under Commission rules, furnish communications service upon reasonable request:

COMMON CARRIERS Service and charges. (a) It shall be the duty of every common carrier engaged in interstate or foreign communication by wire or radio to furnish such communication service upon reasonable request therefor;

(b) All charges, practices, classifications, and regulations for and in connection with such communication service, shall be just and reasonable, and any such charge, practice, classification, or regulation that is unjust or unreasonable is hereby declared to be unlawful. . . .

DISCRIMINATION AND PREFERENCES (a) It shall be unlawful for any common carrier to make any unjust or unreasonable discrimination in charges, practices, classifications, regulations, facilities, or services for or in connection with like communication service, directly or indirectly, by any means or device, or to make or give any undue or unreasonable preference or advantage to any particular person, class of persons, or locality to any undue or unreasonable prejudice or disadvantage.

47 U.S.C. Section 202 (a)

What does this mean? Well, if a group of amateurs or other organization decided to rent transmitter time on TVQ, TVQ must rent that time if it is available and where there are competing claims or requests for the same time, the common carrier must determine by some rational basis, the allocation of that time.

MDS is a relatively new service; It is only within the past two or three years that it has become rather widely used. MDS stations are assigned a single 6 Mhz channel, the bandwidth required for a single television transmission. Due to the limited radio spectrum availability an MDS system can be used to distribute television signals for only one customer at a time. Therefore, unlike other common carrier facilities that usually can be designed to accommodate reasonably anticipated simultaneous demand, there must be some method for determining customer use priority. . . .

. . . The carrier should and must be able to tailor its offering to respond to the customer demand in a reasonable and impartial manner.

In the Matter of Metrock Corp. Revisions
to Tariff FCC No. 1, 73 FCC 2d 802
(1979)

Incidentally, this case also recites that Metrock is a carrier providing MDS service in Oklahoma City. Whether TVQ is a subsidiary of Metrock, I do not know, but it could mean there is another MDS operator in Oklahoma City in conflict with TVQ's letter. And another MDS service in Oklahoma City might mean that neither TVQ or the U.S. Attorney could really determine what is or is not an illegal receiver. Or what about someone who is not a licensed amateur who puts up a receiver to pick up those amateurs who are active on 2300 Mhz. Would he have to have a type accepted receiver to receive a signal transmitted only on the amateur bands? And again, is there any method by which one could determine what frequency he was listening to? (We would assume that the receiver was of proper design and did not emit its local oscillator back into the antenna where it could be detected with a receiver).

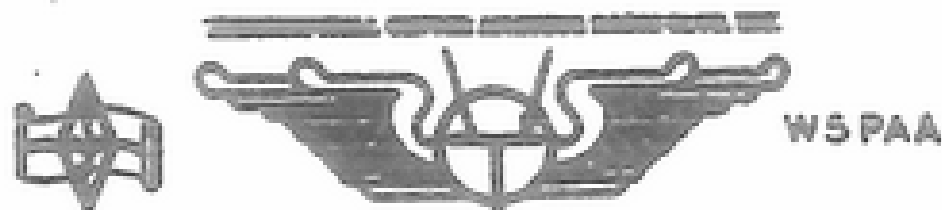
TVQ like all other common carriers must file tariffs of their charges with the FCC. The tariffs, like their services, must be reasonably available to potential customers. (I'll never forget when WA5JXX and myself went down to the local telephone company office and asked to look at the tariffs. The head of the entire Norman business office came out to show them to us and ask if he could be of service). I think that it would be a good idea for someone to ask to see the tariffs and consider a 15 minute show each month directed to

any amateur operator who wanted to receive the program. Again, the presence of a microwave receiver on the house would not necessarily mean that it was used for illegal reception. Incidentally, one of the news stories quoted an official of TVQ as saying that there was no reason for him to scramble the MDS broadcast, since it would only create a market for additional black boxes to attach to your television set to illegally decode their MDS transmission. The fact is that if TVQ was to pick up another customer, they would be required to provide "complete security of transmission" to differentiate between its various customer transmissions. It has been stated in an article in the April 1979 issue of CATJ that the type of "security" contemplated by the Commission is really the "ability to address specific customer classes or groups on demand." So an additional customer could automatically put TVQ in the scrambling business.

MDS was not initially intended as a competition to pay TV system. It just grew that way when the Commission expanded the bandwidth availability to 6 Mhz. At first, the transmissions were directed to large MATV systems that provided premium TV service to hotels and motels. One downconverter provided the signal for hundreds of sets. As converter designs became less expensive (Contrast the monthly charges for KAUT's converters and TVQ's) it became more profitable to attempt to sell the service to the individual homeowner. And therein lies the basic problem. MDS is a poor man's cable TV. It is intended in its present form to undercut and compete with Pay TV. If forced to use scrambling and other techniques of signal diversification, the cost for the service would become prohibitive. Which means that the economic gold mine being worked by the MDS operators would dry up. There is only a limited number of dollars that can be earned from MDS operation in its present form. As cable expands across Oklahoma City, people will pay the same for 20 more channels. Converters will come off the roofs and soon the operator will be left with only a few outlying areas and MATV systems to hawk their services. Even those areas may be taken away by KAUT's premium movie service. All this means that every dollar of lost revenue is important.

It may only be a coincidence, but it is strange that the media outburst that occurred concerning the illegal reception of MDS signals came after a series of arrests in Tulsa of people who had connected their television sets illegally to the Tulsa Cable TV system (There is a state statute that prohibits the larceny of cable television signals, 21 O.S. Section 1737 (1978)) The next day after stories concerning the arrests had appeared in the local paper, Tulsa Cable was flooded with phone calls from people who had been "inadvertantly" been receiving the cable TV service and wanted to know why they had not been getting billed by the cable company. There is probably no doubt that a similiar flood of calls came into the TVQ office. Coincidence? Maybe, but it is also good business practice.

Well, what is the status of the law? That is a difficult question. For now, it will suffice to say that the law is what the U.S. Attorney says it is. If he should file a criminal complaint to prosecute someone, the law then becomes what the United State District Judge says it is. If the case is appealed, then the law is what the Appeals Court says it is. And further appeal to the Supreme Court leaves the determination of what the law is to them. Unless someone wants to challenge the law and in doing so risk a criminal conviction similiar to the recent wiretap case involving department store heir, Jack Anthony, we may never determine what the law really is. Who could afford the thousands of dollars it might take to defend a criminal charge and ultimately risk a conviction. Kind of makes you believe in a government of limited powers. I'll take a look at those laws next month and examine their use in this instance. The statutes are essentially antiwiretap statutes used to protect the pure economic interest of the MDS operator. Any expectation of privacy is a sham.



EDITOR: Bob Graham, WB5NSV 677-8685

MINUTES OF THE JANUARY '81 MEETING OF THE ACARC

The meeting was called to order at 8:00 PM by President Bob Pace, WA5CJG. There were 43 members and guests present. After opening the meeting with the usual round of self-introductions President Pace, made several brief announcements. A brief summary follows;

Bob announced that it is our turn to mail the C & E this month, so if you got this issue we must have gotten the job done.

There was no CORA report this month, because CORA has not met since our last meeting.

Jim K5VRL asked for help in locating the pirate that has been heard on the local repeaters. This is a very serious matter, that all must be aware of. Any and all help will be accepted.

Do we want to hold another Novice class this year? No decision was made.

A motion was made by Carl, W5JJ, and seconded by Bob, W5HXL, to allow associate members present to vote in all elections held at this meeting.

The meeting was turned over to the nominating committee representative, Frank Yohe, N5CIJ. Our annual election of club officers was to follow.

A motion was made by Paul Asplin, WA5HTL, and seconded by Ellard Foster, W5KE, that all current officers be re-elected by acclamation. The motion carried, and so went the annual election of officers.

An election followed for Associate Assistant to the President. The Nominees were Bruce Goff KC5CR and David Holder KA5CWT. David Holder was elected.

The election was followed by a film titled "The Grand Titons."

The meeting was adjourned for coffee and donuts at 9:25 PM.

Bob Graham, WB5NSV

HIGH Z BUFFER AND BROADBAND AMPLIFIER FOR DIGITAL FREQ METERS

The October issue of Amateur Radio, available in the ACARC clubroom, has an intriguing article on the titled subject.

While you're looking over the magazine, don't miss the article on "Dirt Cheap Direction Finding."

W5JJ

WHAT KIND OF "DRY CELLS FOR WHAT SERVICE?"

Just in case you missed it, the November issue of Popular Science had a valuable exposition on the several types of "dry" cells (primary cells) in common use. Briefly, here's what was said:

If you're not looking for long shelf life, if you're going to require only a moderate current drain, and if you don't plan to use them in a cold environment.....the common carbon-zinc cells probably will give you the best service relative to cost.

If you plan to use them in a cold environment, and if you will expose them to a somewhat higher than moderate current drain, then the so-called "heavy duty" (zinc-chloride) cells may be worth the additional cost.

If, however, you plan to demand a heavy current drain, plus the ability to function well in a cold environment, and expect to get a long shelf life.....then it's worthwhile to plunk out extra dough for the alkaline type of primary cell. It'll cost a lot more but may give you the best return on your dollar.

(For long life in stand-by service, you can't beat the lithium cell.....that's what I have in my heart pacemaker!)

W5JJ



RANDOM WORDS FROM THE PRESIDENT

THIS WILL BE THE FIRST ISSUE OF THE C & E YOU WILL RECEIVE IN 1981, I REALLY HOPE SOME OF YOU OUT THERE GET IN THE MOOD TO WRITE AN ARTICLE FOR THE MAGIZINE THIS YEAR, IT WOULD REALY BE NICE TO HEAR FROM EACH OF YOU.

THE JANUARY MEETING OF ACARC WAS HELED ON JAN. 2ND AND I WAS VERY HAPPY TO SEE EVERYBODY TURN OUT, WE HELED ELECTIONS AT THE RAILROAD STATION, WELL ANY WAY THE TRAIN WISTLE BLEW, I KNOW THE OFFICERS OF ACARC WILL KEEP UP THE GOOD WORK LIKE THEY DID IN 1980, I WOULD LIKE TO THANK BILL, K8KDR, BOB, WB8NSV, AND LARRY, WB8AAY FOR THE SUPER JOB THEY DID IN 1980, AND I KNOW THEY WILL GIVE ME THEIR FULL SUPPORT IN THE NEW YEAR. I WOULD ALSO LIKE TO THANK ALL THE PEOPLE WHO HELPED US WITH HAM HOLIDAY LAST YEAR. WHILE I AM HANDING OUT THANKS I CAN NOT FORGET ONE OF THE MOST IMPORTANT GUY'S AROUND AND THATS MIKE SALEM, N8MS, THIS GUY WRITES SOME OF THE BEST ARTICLES FOR THE C & E THAT I HAVE EVER READ, THANKS MIKE!!!!

I HOPE TO HAVE SOME GOOD PROGRAMS LINED UP FOR THE CLUB MEETINGS THIS YEAR AND IF ANYBODY HAS ANY SUGGESTIONS PLEASE LET ME HEAR FROM YOU I WILL TRY MY BEST TO GET SOME ONE TO TALK ABOUT WHAT EVER YOU'ALL WANT...

HERE ARE SOME FACTS YOU MAY NOT HAVE THOUGHT ABOUT, THE CLUB DUES YOU PAY TO ACARC, \$3.00 A YEAR ALL GO TO THE C & E FOR THE MAILING TO YOU. ACARC OPERATES THE 146.25/146.85 REPEATER WITH AN OPEN AUTO PATCH, WHICH I AM SURE MOST OF YOU USE AT ONE TIME OR ANOTHER AND THIS IS A GOOD THING, BUT REMBER WHEN YOU USE THE REPEATER USE IT LIKE YOUR CALL WAS ON THE LINE AND IF YOU HEAR SOMEONE MISSUSING IT LET THEM KNOW IN A NICE WAY TO SHUT UP.

HAM HOLIDAY 1981 WILL BE HERE BEFORE YOU KNOW IT SO GET READY, ANND WHEN YOU ARE CALLED ON TO HELP PLEASE HELP!! SEE YOU AT THE NEXT CLUB MEETING, FEBURARY THE 6TH.

73, BOB PACE, WAB0JG..

THE FOLLOWING ARTICLE IS A REPRINT FROM THE TEXAS VHF/FM NEWS.

TEXAS GIGGERS PROVIDE OKLAHOMA PHONE SERVICE

(Editor's note: Texas, unlike some of the more mountainous states, usually must depend upon manmade structures such as buildings or television towers for support of amateur repeaters. The lack of tall buildings, and the line loss of a long run of coax up the tower, usually limit repeaters to the 3-400 foot AGL level. You don't talk very far that way, though, so you can see what an undertaking a 100 mile-plus shot would be.)

By Chuck Adams, WB5WRR and
Randy Zoch, WB5PBZ

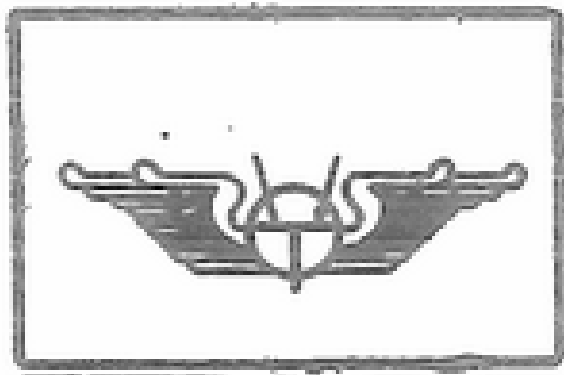
For years, the Lake Texoma Hamarama, situated at a state owned and operated tourist camp near Kingston, Oklahoma, has been "THE" meeting place for Texas and Oklahoma hams to get together at least once a year. But until the 1980 event, no one could take advantage of the shiny-new handheld transceiver on his belt... the lodge was in a

valley at lake level, and the nearest repeater was definitely not within hand-held coverage.

The Dallas Amateur Radio Club, operator of the 146.88 machine in Dallas, decided to take their back-up repeater, a Spectrum 1000 complete with duplexer and antenna, to the Hamfest, to provide a well-known talk-in frequency and intercom service, a frequency that most Metroplex amateurs would be familiar with.

About four weeks before the hamfest, which was held October 24-26, plans were finalized for the two meter machine to be placed on a 150 foot high water tower, owned by the State of Oklahoma (remember, they were the landlord, in this case).

DARC's Jim Sanders, AE5C, happened to mention the plans for the repeater to Mike Simpson, WB5SUF, one of the Metro Quarter



“everyone got their fill of autopatches”

FROM PAGE 1

Giggers, who came up with the idea of providing Dallas-Fort Worth autopatch service to the portable repeater, which would be over 100 miles away. Obviously some sort of link back to civilization would be required.

It was Randy Zoch, WB5PBZ, who came up with the idea of utilizing 220 as a linking medium, with the first idea being to link back through the 224.78 Fort Worth machine, WB5WRR/R, and utilize the repeater's 2 meter selectable remote base into Simpson's WR5ARL 2 meter repeater.

220 link provided...

12 days away from the hamfest, a test was run on the path back to the Metroplex, using a Midland 13-509 and a 40 watt amplifier tied to the portable 2 meter repeater in remote base configuration, through a 7 element 220 yagi, into the 224.78 repeater on top of the Tandy Center in Fort Worth. WB5WRR/R's 9 dbi antenna was realigned, to provide maximum gain in the direction of Lake Texoma.

Sunday morning of the test, found Chuck, Randy and Ken Noblitt, KA5HVH, heading towards Oklahoma with a ladder, beams and masts on top of the car, and radios inside.

Upon arrival at the Texoma State Park, they set out to find someone to give permission to climb the water tower. The legalities of a liability release over with, up they went to string coax, mount the antenna, connect the radio, turn it on and find that, although they could hear .78s box just fine, they couldn't talk back into it.

One hundred miles of hilly terrain proved too much for the path, so an alternate was suggested.

About 30 miles north of the Metroplex, the Denton County Amateur Radio Club operates a two meter machine on top of the dormitory of the Texas Women's University, at 300 feet above the ground.

Deciding to use the 224.02 WB5SUF repeater as a relay point, the 24 story TWU dorm was the only site available for use on the temporary basis for the weekend. Assistance from Fred Stevens, WA5LIE, a technical committee member for the DCARC insured that all would be well there... if only the path would cooperate as much.

Time was running out, with only one weekend left before the hamfest, so plans were formulated in a hurry. The Texoma 146.88 repeater would have a 224.02 remote base, which would talk back and forth to the 224.02 link repeater in Denton. That repeater, WB5SUF/R, would have a 444.6 MHz remote base, and a 147.615 MHz remote base, either of which would be touchtone selectable.

The 444.6 remote would allow the Texoma signals to be used, should the 146.91 repeater and 147.015 147.615 remote base interfere with each other from simply wanting to link an autopatch repeater in Texas with a repeater in Oklahoma.

The week of October 13-17 was a hectic one. All of the equipment that was required, needed to be assembled, check out, modified, etc., for the temporary system.

After several late nights spent soldering and tweaking (and more than a little cursing), it was all ready Friday night, when all of the equipment was assembled in the same room for a test. It all worked the first time, quite an unusual feat for these tired Quarter-Giggers.

Saturday morning, October 18, Randy and Ken set off towards Oklahoma with the 220 portion of the Texoma equipment, while Mike and Chuck were on the way to Denton to meet WA5LIE for building-top access at TWU. Five hours after arriving, Denton was ready. Very shortly thereafter, a weak KA5HVH was heard calling... the 60 mile path had been made.

Lining up the antennas produced at least 30db of quieting on the signals... after a change to horizontal polarization, instead of the normal vertical polarization, the results picked up the signal strength at both ends, providing a margin of safety in the path.

Randy and Ken headed back to Texas, and the Denton crew packaged up the 220 link system on the roof of the Denton site, outside, with plastic garbage bags and duct tape for weather-proofing.

Everything was lined up for the Hamarama, now less than a week away. Not much was left to do in terms of equipment preparation, so Randy and Ken put their spare time to use, and decided to build a portable 224.78 repeater, the intercom of the Metro Quarter-Giggers, with a 146.88 remote base, so we wouldn't be left out of the fun to come.

The Friday of the hamvention, AE5C set out with the 2 meter portable package, with Randy, Ken and Chuck right behind. About 7:30 p.m., the 224.02 link repeater was accessed, the 147.615 remote base enabled, and the Arlington WR5ARL repeater was full quieting in Kingston, Oklahoma.

Only a few people had known about the project, so when Ken waited until a QSO was finished on the .88 machine, ID'ed and tickled the touchtone pad, and a dial tone came back, people came out of the woodwork wanting to know what was going on, and if they could use the autopatch, too.

The link was running virtually continuous until about 11 p.m. when some problems were noticed. A check of the equipment showed some temperature sensitive components (about 35 degrees outdoors by this time of night), so a 100-watt light bulb was placed in the repeater cabinet to warm things up.

About 2 a.m. Saturday, everyone got their fill of autopatches, and the system was disabled for the night. Note that positive control of the system was available for the control operators, so they could shut everything down if something wrong developed, anywhere along the line.

The next morning, the system was again enabled, and it ran continuously the entire day, with nary a problem.

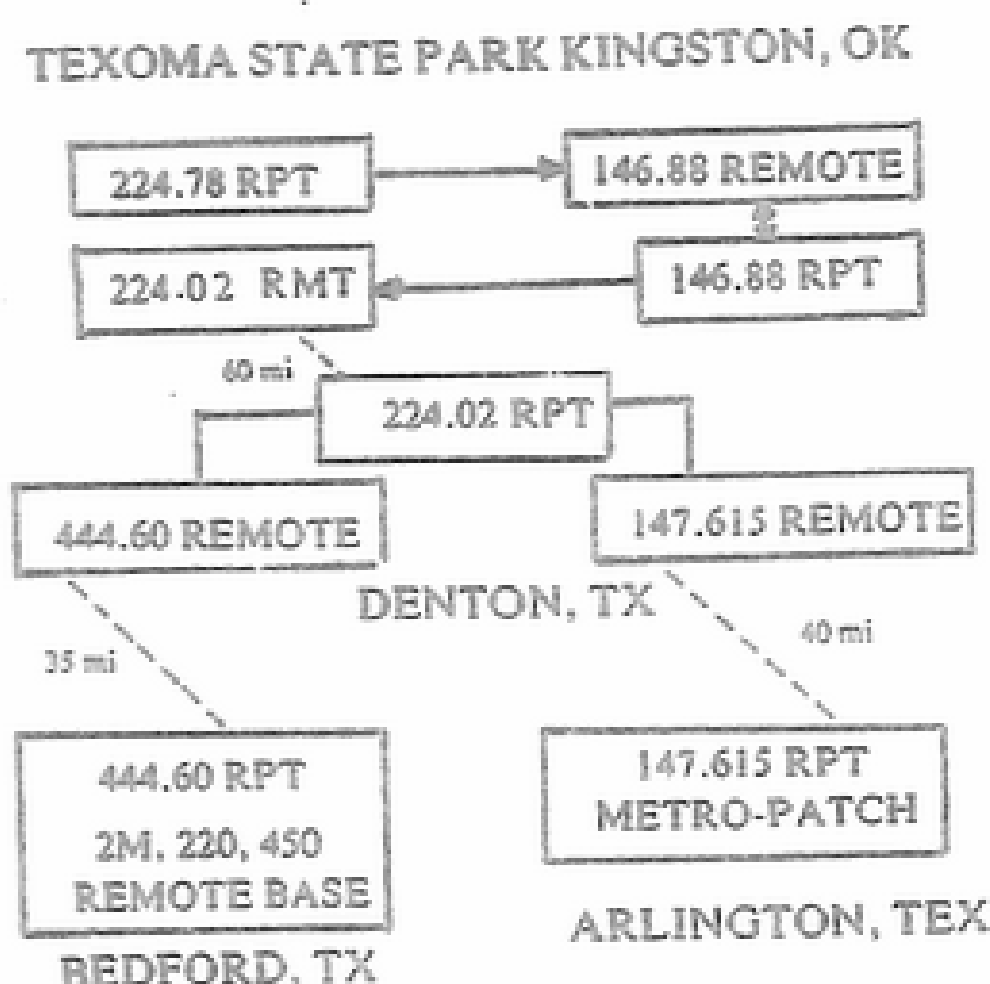
The organizers of the Texoma Hamarama were so impressed by the interest and activity generated by this project, that they requested that the Quarter-Giggers give a demonstration and talk on the system. Even though it was not announced on the air, and started an hour late, about 75 people turned out to hear Mike Roden, N5FL, give a demo of the capabilities of the system.

The system remained up and active until noon Sunday, when it was disabled and dismantled. It was decided by those persons involved that even though it was a tremendous amount of work to make the system operative, it was well worth the effort and was a heck of a lot of fun to boot!

THIS COULD BE DONE IN OKLAHOMA IF WE COULD GET PEOPLE TO WORK...

Thanks to the Metro Quarter-Giggers directly involved: N5FL, KA5HVV, WB5PBZ, AE5C, WB5SUF and WB5WRR.

Also, thanks to the following for their help or assistance: Fred Stevens, WA5LIE, and the Denton County Amateur Radio Club, Dallas Amateur Radio Club, State of Oklahoma-Texoma State Park, Ted Heithecker, W5EJ, Betty Roden, WB5DMR and John Roden, KA5G.



73, Bob

I REMEMBER YESTERDAY

Can you remember when the radio amateur community operated in the frequencies just above the broadcast band or when the frequencies were used on a shared basis with other services? Some say that they can remember when the hams used the frequencies where today's broadcast band is. I can happily say that I don't remember those days. I can remember when the only thing separating the voice and cw segments of the band was a gentleman's agreement and when you couldn't just order up a ready made antenna and stick it up, but had to design and build your own and then had to make it work! Perhaps you talked to the ham in Illinois that had over a mile of wire in his antenna or the rancher in Montana that used a barbed wire fence.

If you're really ancient you might even remember when it was a thrill to cross the Atlantic and not many of the gang had done so. Those were the days when a Marconi and a beverage antenna were the only way to go. Split operation was all you had to work those rare JAs and you watched your step to stay well out of the DX window, lest the wrath of all DXdom come down upon you. We counted the states one by one as we worked them, always looking for that rare one, where there were only a few stations.

The calls that were common were like, W0VB, W9BL, W4GBT, W5HW, W2FJ, KH6CC and most them rural America, farmers, ranchers and the like. Many a cw character was sent into the wee hours discussing the crops, the heat, lack of rain or snow, the price of barley and a bail of hay or what kind of antenna you were able to make work.

Yes, I remember yesterday. Anyway I think it was yesterday. Was it yesterday? No, as a matter of fact it wasn't yesterday. It was today on one sixty. Discover the "Top band".

COY, N5OK

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Bill, WA5RAQ

=====

FOR SALE : Kenwood multi-mode 2-meter transceiver model TS-700A
in like-new condition, with manual, and original carton. Rig works
AC/DC, CW, AM, FM, USB, LSB, VFO, or 12 xtal positions. Has 7 xtals
installed for local repeaters. Rare buy for \$400.00. Rob Runyon
AA00, 373-1818.

FOR SALE - Ten-Tec Omni-A (analog) factory converted to series "B" and
completely updated with latest mods. Includes matching power supply,
remote VFO, external digital frequency display, and a Speed-X key on a
heavy aluminum base. Entire station in like-new condition, ready for the
air. Belongs to an individual who has decided not to pursue his license
due to other interests... a bargain at \$800.00 for the entire station.
call Rob Runyon, AA00, 373-1818.

AMATEUR RADIO SEVERE WEATHER REPORTING SYSTEM 146.22/82 MHz CODE CHART				
Code	Street	↑	Code	Street
A	Gregory	WEST		
B	Cimarron			
C	Richland		1	220th St.
D	Frisco		2	206
E	Cemetery		3	192
F	Czech Hall		4	178
G	Mustang		5	164
H	Sara		6	150
I	Morgan		7	Memorial
J	County Line		8	122
K	Council		9	108
L	Rockwell		10	Britton
M	Mac Arthur		11	Wilshire
N	Meridian		12	63
O	Portland		13	50
P	May		14	36
Q	Pennsylvania		15	23
R	Western		16	10
S	SANTA FE		17	RENO
T	High	EAST	18	15th St.
U	Eastern		19	29
V	Bryant		20	44
W	Sunnylane		21	59
X	Sooner		22	74
Y	Air Depot		23	89
Z	Midwest		24	104
AA	Douglas		25	119
BB	Post		26	134
CC	Westminister		27	149
DD	Anderson		28	164
EE	Hiawasse		29	179
FF	Henny			
GG	Choctaw			
HH	Indian Meridian			
II	Triple XXX			
JJ	Peebly			
KK	Luther			
LL	Dobbs			
MM	Harrah			
NN	Pottawatimie			
C. O. R. A. Collector And Emitter February 1981			SOUTH ↓ CONDITIONS 1 Heavy rain, ½ block visibility 2 Hail, any size 3 Strong, damaging wind, 50+ MPH 4 Cyclonic motion 5 Tornado aloft 6 TORNADO ON GROUND	

Oklahoma City
EMERGENCY NUMBERS

FIRE 235-1313

POLICE 231-2121

AMCARE 232-1234

HIGHWAY PATROL
424-5511

EMERGENCY
OPERATING
CENTER
231-2255 or
424-4307

Poison Center
271-5454

Burn Center
949-3311

Highway Conditions
424-5521

Traffic Lights
8 to 4:30 weekdays
231-2648

Gas 232-4481
OGE 272-9741
Water 231-2271

NOAA 24 HOUR
WEATHER
BROADCAST
162.40 MHz

AMATEUR RADIO OPERATORS REPORT SEVERE WEATHER CONDITIONS

The Oklahoma City Area WEATHER NET, activated when severe weather is expected, is sponsored by Oklahoma City Autopatch Association, Inc. All amateurs are encouraged to participate on 146.22/82 regardless of club affiliation.

The above code chart is based on the official weather spotter grid map published by TV station KWTW, Channel 9 which also hosts the O.C.A.P.A. repeater equipment at over 1000 feet height.

Meteorologists at Channel 9 conduct an annual spotter seminar which has surely paid off because the weather spotters sound more professional every season.

Bill, WA5RAQ

WEATHER MEETING....CHANNEL 9 FEBRUARY 17th AT 7:00 pm BE THERE !!!!!

The South Canadian Amateur Radio Society

EDITOR: Jack Bickham, WB5TZZ

329-1311

SPECIAL FRIDAY NIGHT SESSIONS PLANNED

The South Canadian Amateur Radio Society will have special Friday night business meetings in February and March, the club decided at its regular session January 10.

On February 13 the meeting at the Cleveland County Red Cross will begin at 7:30 p.m. Club business will be conducted briefly and the main item will be instruction by Jess, AF5X, the new Cleveland County Emergency Coordinator.

On March 13, the meeting time and place will be the same. Leonard, WA5FSN, the Oklahoma SCM, will be the special guest.

In April the club will return to the usual schedule for business sessions, the second Saturday of each month at 9:30 a.m. at the Red Cross.

CLUB GIVES DONOR PLAQUE TO MARTIN FOR RED CROSS LOBBY DISPLAY

As another highlight of its January meeting, SCARS gave George Martin, the Cleveland County Red Cross director, a large walnut plaque on which are engraved the names of the chief donors to last year's emergency radio station fund drive. In accepting on behalf of the Red Cross, Martin said the plaque will be hung in the building lobby.

W5OU/R WORK SCHEDULED; CLIMBING BELT OKAYED

SCARS has authorized improved control facilities for its 147.66-.06 repeater in downtown Norman.

A new timeout timer will be installed in the W5OU/R machine to assure compliance with FCC regulations, and a hardline control system will be in operation as soon as the club technical committee and Ma Bell make the necessary installation.

No plans exist to add a phone patch. The sense of the latest meeting on the subject was that the WR5AFW machine, which many SCARS members also support, provides sufficient autopatch facilities for the Norman area.

In other business, the club has authorized expenditure for a professional-quality climbing belt which will be available for use by club members. Purchase of a good club gin pole is also in the works.

EMERGENCY NET MEETINGS TO RESUME IN FEBRUARY

Regular monthly meetings of the Cleveland County ARES will resume in February, according to Jess, AF5X, the new Cleveland County EC.

The net will be called at 7:30 p.m. on the first Tuesday of each month, Jess said. The net call will be made on the W5OU/R machine. Checkins will be taken and business concerning county emergency operations will be conducted.

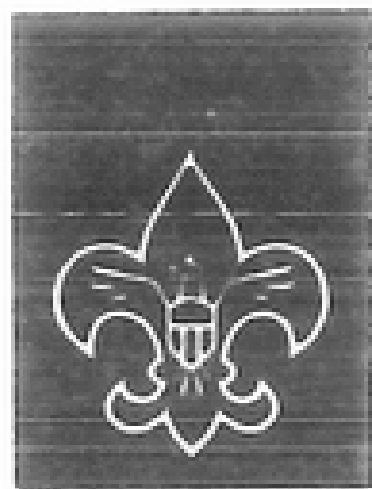
Although he will soon distribute an updated telephone calling tree, Jess said he will NOT activate the calling tree to remind members of the monthly meetings. The calling tree will be used only for unusual events, he added.

"I hope everyone will mark the calendar now for Tuesday, February 3, at 7:30," Jess said. "This is not just a SCARS function; the ARES is open to all interested amateurs. We hope for participation by members of the OU club and other operators in the area."

CLUB PLANS TO AFFILIATE WITH ARRL

Since nearly all its members are members of the ARRL already, SCARS has elected to seek affiliation with Newington as an official affiliate club. According to H.O., WA5MLT, there will be no impact on club dues. Details are to be worked out.

FOR SALE: Ten-Tec KR-50 dual paddle iambic keyer in like new condition. There seems to be no possibility I will ever learn to handle iambic keyers or dual paddles...too many years on vibroplex I guess. This high quality and high priced keyer yours for only \$60.00. Rob Runyon AA00 373-1818.



SCOUTING/USA

Cub Scout, Scout and Explorer programs

Last Frontier Council, SC-480

3000 N.W. 10th Street, Box 75339

Oklahoma City, Oklahoma 73147

405 946-2621

December 12, 1980

Fred Taylor
915 N. W. 31st Street
Oklahoma City, Oklahoma 73118

Dear Fred,

I want to thank you and your dedicated group of amateur radio enthusiasts for your great help at this year's Scout-O-Rama.

Your service was very helpful and necessary for the success of Scout-O-Rama. This year's Scout-O-Rama was truly a success with a record attendance by the public and participation by Scouts in the show.

Please thank the rest of those involved for both their time and the use of their equipment.

Thank you again and we'll look forward to working with you again next year.

Yours in Exploring,

Timothy Kaul

WEATHER MEETING CHANNEL 9 FEBRUARY 17th AT 7:00pm BE THERE !!!!!



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GENE NAILON - K5DLE
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OFFICE 405-681-2331
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EXPERIENCE IN GENERAL AVIATION
AVIONICS PREFERRED - - BUT NOT
REQUIRED

5-10

CHOCTAW ARC



EDITOR: Syrena Standlee, N5BEP

The January meeting of the Choctaw Amateur Radio Club was called to order by President Frank Carter, AB5H at 7:15 pm. Richard, KA5ALO, gave a treasurers report.

There were no minutes of last month's meeting as there was no meeting. So we moved on to old business. Frank received a letter from the Welfare Department thanking the club for the new toys that we donated for Christmas.

Now to the new business. Phil, WD5BNT, made a motion to amend the constitution to read that elections may be held without having a 2/3 of the members present. The motion was carried.

Bob, WD5EVP, made a motion that we have a dinner meeting every other month. Everyone agreed that that was a good idea. All details were discussed then DL, K5EGQ, made the motion that we have the February's dinner meeting at the Choctaw Restaurant on Friday February 6 at 7:00 pm. The motion was carried. Our regular business meeting will be March 6 at 7:00 pm at the Choctaw City Hall. Plans will then be made for the date and place for the April dinner meeting. AB5H appointed Dot and June to the telephone committee to make the reservations, and get a head count. DL is going to assist them. Anyone planning to attend this meeting should get in touch with someone on the committee.

Tony, WB5PNH, brought up a fatal accident that happened because of a stolen stop sign. Anyone that sees a stop sign that has fallen down or has been taken, please report this to the police department. It may save someones life

The meeting was then turned over to Tony by AB5H for elections. Our officers for the year 1981 are:

President: Bob Allen, WD5EVP
Vice Pres: Frank Carter, AB5H
Treasurer: Richard Edwards, KA5ALO
Secretary: Syrena Standlee, N5BEP

Our program committee will be DL, K5EGQ, and Tony, WB5BNT. CORA representatives will be Bob, WD5EVP and June, N5ARV with attendance on a rotating basis. The meeting was adjourned at 8:00 for coffee and cookies.

I would like to say that Frank did a great job as president last year and we all enjoyed having him. We are looking forward to the new year with Bob as our new president. I think he will do a fine job and we won't have anything to worry about. June, N4ARV, did a great job as secretary so I will have to keep on my toes. She has offered to help me any way she can. I appreciate that.

What have you done, or know about lately? Let me know. "73"
Syrena, N5BEP, secretary

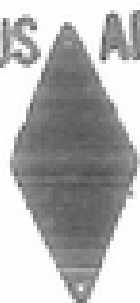
+ + + + +

FOR SALE: Kenwood YK-88C, CW crystal filter, \$35.00. Randy Williams, WB5CNM
Office 848-8551, home 789-7810

FOR SALE: HAM II rotor, \$75.00. New TET 15 meter SQ 15 antenna, \$45.00. Leader LEO-310 Ham Oscilloscope. Has two tone oscillator for distortion check, and may be left in transmission line for transmit or receive monitoring. Also made for general oscilloscope use. \$175.00. Call W5PTM, 732-8401.

FOR SALE: From estate of W5RJ. TS-520. 2kw linear w/3 ea 4cx250B's with P.S. Military linear SC-908A1 w/PL-172. TEMPO ONE PLUS transceiver. Military receiver w/P.S. & speaker panel. Two Bird wattmeters w/elements. Signal generator. Scope (5"). and 2 enclosed metal relay racks. Contact R.J. Taylor, 5-6 pm weekdays. Phone 745-3162.

FOR SALE YAESU FT202R WITH TT PAD-DROP IN CHARGER-8 NICADS-CRYSTALS
34/94 52/52 07/67 16/76 22/82 37/97-CARRYING CASE-BEST OFFER-CALL
DICK BAKER, WB5TMM AT 685-2867



The Altus Area Amateur Radio Association held its regular monthly meeting at the North Main Fire Station, Thursday, December 11, at 7:30 PM. There were 11 members present.

Mike, W5VXU, furnished the financial report showing that the club had \$206.83 in the bank as of December 1 with an additional sum of \$33.50 coming in for renewal of membership and miscellaneous.

Also, an update report on the status of new Novices was given which showed that two from the last class were now licensed, Bill Seiler as KA5KKD and Larry Jones as KA5KLA. Elmo Combe is anxiously awaiting his new call sign as well as Greg Ross, Jack Wilson, Mat Kirk and Steve McAlister. Joe Overton is still trying to find time to take his written exam.

The major item on this evening's agenda was the nomination and election of new Club officers for the coming year. After discussion, Chuck Smith, WB5MJS, was picked as the new President and Dennis Bonewitz as the Secretary/Treasurer. Both men were elected by acclamation.

Major, KI5P, then gave a short demonstration of his scanner and power supply. The meeting adjourned for coffee and socializing.



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MINUTES

The January meeting was called to order by Prez Bill KB5BS at 7:05 pm at the Will Rogers Air National Guard Base on the 13th with 55 members and guests present representing the club membership.

The Minutes of the December Dinner Meeting were approved as published in the January Collector and

Emitter (C&E).

The report of the Treasury by Joe WD5BMP was approved as read.

Pursuant to the motion for a Technical Committee Budget request from November 11, the committee Chairman Don AE5N presented a plan for materials and volunteer constructors. On motion of Coy N5OK and second by Bill KC5CT the club authorized expenditure of \$90.00 for a replacement repeater control circuit, cards and chips.

The following applicants were duly elected into club membership:

Gary Knapple W5GNV
Lee Swanson N5CPN

Harry Woods KA5IQA
Phil Hall WD5BNT
Alan Perkins WB5NER

Martin Brody KA5JUI
Jim Clemmer KA5DPT

The Managing Editor of the C&E, Joe WA5ZNF, reminded us that in order to retain the usual mailing permit, we must file club membership registration forms to satisfy postal regulations: if you don't receive your C&E it's probably because you failed to file.

The Volunteers who performed the Nursing Home Traffic Project 13-14 December 1980 reported only fair success attempting phone patches and suggested considering third-party traffic if the project were attempted again.

The meeting adjourned at 7:52 pm for refreshments and equipment checks of VHF gear by and for the club members till 9:17 pm. Next month's program will be "ASCII Communication on 2 Meters." The next meeting will be the same time and place 10 February.

Jim N5BEQ
Secretary

AGE SAGE: HOW TO KNOW WHEN YOU'RE GROWING OLDER or IS THERE REALLY LIFE AFTER 40 ? : WHEN YOU START BURNING THE MIDNIGHT OIL AT 9 PM.!

jim n5beq

IN AN EMERGENCY

Monitor your local emergency net frequency.

Make contact with your local EC or RO.

Take immediate steps to follow any prearranged plans.

Stay off the air unless or until you are sure you can be of assistance.

In widespread emergencies, monitor W1AW for latest bulletins and news.

hr report #333 January 16, 1981:

K6EOA was sentenced to three-year's felony probation and fined \$500 for his threats against FCC engineers who were investigating jamming charges against him in 1979. The sentence was handed down last week in the Superior Court In and For the County of Los Angeles and his probation will hinge on the condition that he does not use any of his Amateur equipment during the probation period and that he does not threaten, call or harass either FCC officials or certain specified area Amateurs during his three years on probation.

He will also be required to obtain psychiatric treatment from a qualified M.D. at least once a week and must obey all instruction from his probation officer and all other laws during his probation. Failure to comply with any of these conditions could put him into prison for the balance of the three years.

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Our club is facing some difficult days but challenging issues at the present time. With the 34/94 repeater off for a while and the instances of deliberate interference of QSO's and indecent language on both repeaters, we have a challenge.

I must refer to a fine article by Mike Salem N5MS in January, 1979 issue of C & E relative to a decision in a case FCC Vs Pacifica Foundation. I don't pretend to fully understand the legal jargon, but I quote Mike's article:

"The thrust of the opinion directs itself only to broadcast operation at certain times of certain types of materials. At issue is the First Amendment rights and censorship prohibition of the Communications Act of 1934 (Sect. 326 of Title 42) versus the power of the Commission to control "obscene, indecent, or profane language" as provided in Title 18 USC Section 1467. Further on Mike tells us, as the article continues: "As defined by the court, freedom of speech is a relative thing. Obscenity can be regulated and prohibited. In addition, the Court has said that the FCC, among other police agencies, has the power to also regulate indecent language as well as obscenity. "The line between obscene and indecent is a very fine one indeed which varies from person to person". "What I consider indecent language is different from what another person might consider indecent." Further down in the article it says:

"Whoever utters any obscene, indecent, or profane language by means of radio communications shall be fined not more than \$10,000. or imprisoned not more than two years or both."

Further it says (after a discussion of prohibitions within the Broadcast industry):

Section 605 of the Communications Act provides for secrecy of all radio transmissions except "Broadcast, or transmitting by amateurs or for the use of general public, or relating to ships in distress. For all other radio or television transmissions, there is a duty of the listener to tune away and not intercept the transmission. Could it be said that anyone who intercepts a transmission that is not intended for him could complain about an obscene or indecent transmission. Apparently not. However, do note that the amateurs are not entitled to that same secrecy provision. A person intercepting an amateur transmission has no duty to tune away. It might be concluded that the implications of the WBA1 case apply equally well to Amateur to Amateur transmissions."

In the concluding paragraph of the article, comment was made as follows: "Perhaps the best rule is the one suggested to me by K5JB and that is, treat your language on the ham band in a manner that you would not mind it being heard by your local city council, or state legislature. Remember every time you open your mouth you represent all of amateur radio to the public listening with their scanners and short-wave receivers. Consider your language in light of all relevant factors as a representative of amateur radio including power, frequency, likelihood of being heard and mode of transmission."

Jim Williams, K5VRL and his volunteers are continuing daily surveillance. If you can help, call him.

We are maintaining our membership in fine style. Hopefully, members that are getting no delivery of the Collector and Emitter for any reason are notifying Fred KA5CXW or Sid W5K)Z for correction. Please look for a six digit number on your mailing label prefixed by "03" which is our club number. We will correct the mailing list as necessary. I'm proud that we have most of the cards sent to you for registration.

See ya,

Fred KA5CXW

Consult individual club sections for specifics.

FEBRUARY '81 HAM HAPPENINGS

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		see page 28				
1 Wheatston @ Kingfisher	2 SKYWARN Altus 7:30 Tri-City	3 E.A.R.C. DINNER, MORI, Great Plains	4	5 OKC FIRE DEPT. 820NW 5 7:30pm	6 ACARC	7 Oklahoma Repeater Society, Altus
8 Happy 49th	9 Choctaw, USAFMARS	10 Hoers, O.U., Shawnee	11 SEE PAGES 12+13	12 OK. COUNTY CIVIL DEFENSE 7:30pm Altus, ATV	13	14 flea mkt., SCARS
15 EARS	16 ARES	17 WX: OCAPA @ Ch. 9 7pm	18	19 DAMAGE ASSESSMENT 7:30 pm KAY COUNTY	20 VHF	21 EDIT C+E
22	23	24 Shawnee, CORA	25	26	27	28 Wheatston, VHF, Edmond mail C+E.

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