

Central Oklahoma Radio Amateurs

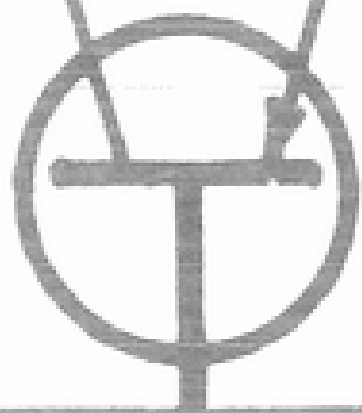
COLLECTOR

AND

EMITTER

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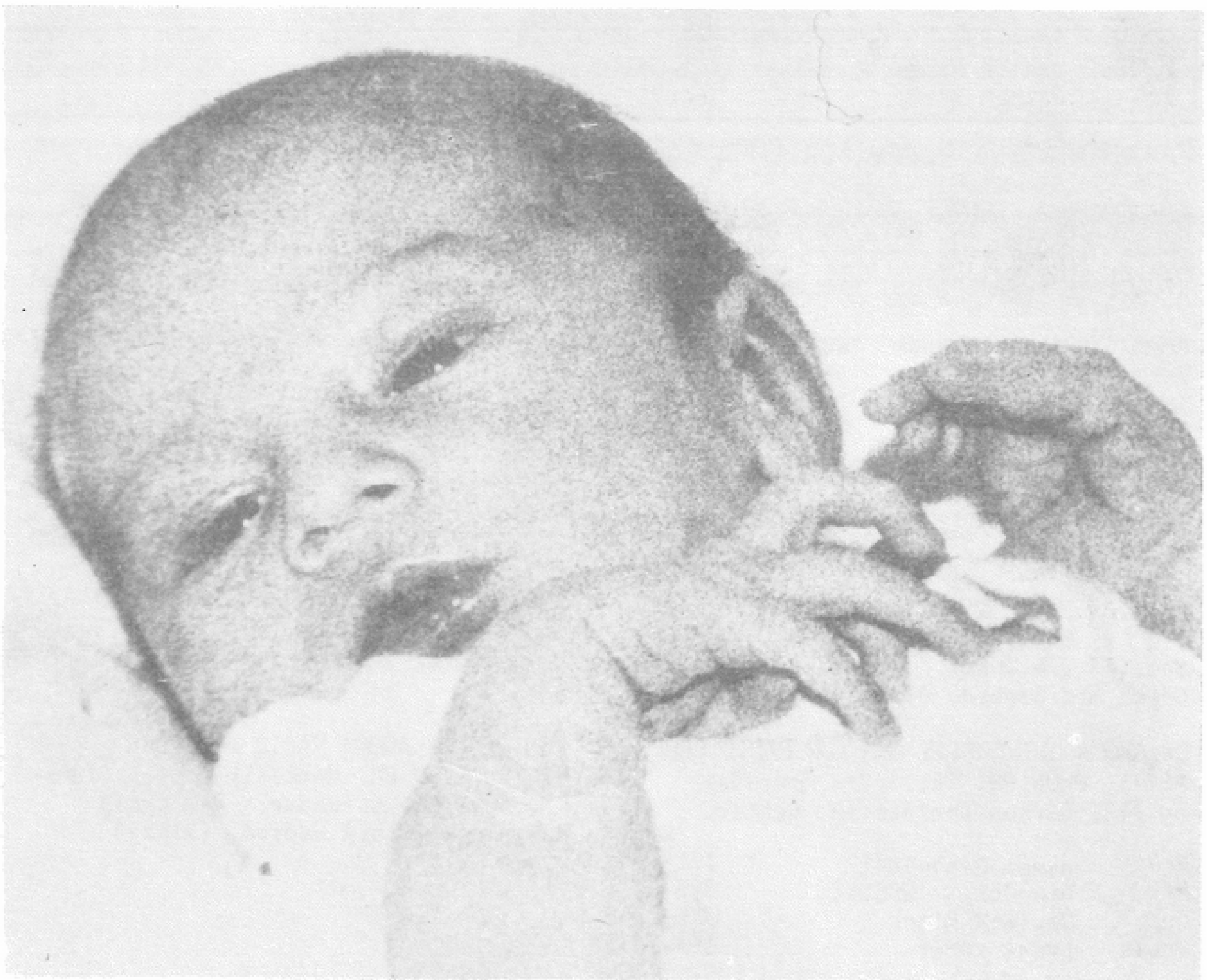
AN INFORMATIVE MAGAZINE
PUBLISHED MONTHLY BY AND
FOR OKLAHOMA RADIO
AMATEURS

AND ANYONE INTERESTED IN
LEARNING ABOUT IT

Volume 4

NOVEMBER 1978

Number 46



BY THE TIME THE YOUNG GENTLEMAN IN THE PIX ABOVE IS OLD ENOUGH TO GET HIS AMATEUR LICENSE THERE IS NO TELLING WHAT COMBINATIONS WILL BE AVAILABLE BUT IF THERE IS NO BIG CHANGE IN THE LAST THREE WE HOPE HE GETS "BKH" -- THAT OF COURSE WOULD STAND FOR BRYAN KENNETH HARDING - THE FIRST GRANDCHILD OF YE MANAGING EDITOR.

NOW WE HEAR, "WHAT IS A PICTURE OF A 3 HOUR OLD BABY DOING ON THE C&E INSTEAD OF, SAY, A CURVY CUTIE?"

FIRST OF ALL, YOU BETTER BELIEVE BRYAN IS THE MOST IMPORTANT THING AROUND THESE DAYS - SECONDLY, NO ONE HAS TURNED IN ANYTHING FOR US TO USE AND EVERYONE EXPECTS A PICTURE - SO HERE HE IS.

Central Oklahoma Radio Amateurs

COLLECTOR AND EMITTER



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ADDRESS ALL COMMUNICATIONS TO:

CORA C&E, P. O. Box 15013, Okla City OK 73155

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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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Vice President	Chuck Wilhite	K5NK	721-4926
Secretary	Nathan Kirby	KB5BF	364-7979
Treasurer	Ron Recer	WD5FRQ	751-5378

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OUARC	Nathan Kirby	KB5BF	364-7979	Contributing Editor, Mike Salem, N5MS			

PARTICIPATING CLUBS FOR CORA COLLECTOR & EMITTER:

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Postal station 18, Okla City OK 73169
MEETS: 8:00PM First Friday each month
Flight Standards Bldg, FAA Aero Center

Pres	Robert Graham	WB5NSV	677-8685
V-P	Robert Runyon	AA00	373-1818
Sec/Tr	Bill Oliver	K5KRD	329-6333
Assist	Paul Asplin	WA5HTL	685-6590

MID-OKLAHOMA REPEATER
MEETS: 8:00 PM First Tuesday of month. Okla City EOC, 4600 N Eastern

Pres	Chuck Wilhite	K5NK	721-4926
V-P	Bill Atkins	N5AH	737-6984
Sec/Tr	Jim Jones	K5PR	634-5235
Dues: Sid Gerber, 829 Bouse, MWC 73110			

OKLAHOMA UNIVERSITY AMATEUR RADIO CLUB
MEETS: 8:00 PM, 1st & 3rd Thursday
Rm 119, Carson Engineering Center.

Pres	James Gardner	321-8779
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Sec	Gayland Kitch	325-2968
Treas	Linda Kirby	364-7979

BICENTENNIAL AMATEUR RADIO CLUB [76'ers]
MEETS: 3rd Tuesday each month, 7:00 PM
Air National Guard, Will Rogers Airport

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V-P	Joe Ramage	WB5TDW	685-4814
Sec	Joe Couch	WD5BMP	
Treas	Don Duck	AE5N	

OKLAHOMA CENTRAL AMATEUR RADIO CLUB
323 NW 10th, Okla City OK 73103
MEETS: 8:00 PM third Friday each month.
American Red Cross Bldg, 10th & Hudson

Pres	Ken Ford	WB5KHU	528-8770
V-P	Al Prince	WB5KCU	
Sec	Joe Buswell	K5JB	732-0676
Treas	Ellard Foster	W5KE	789-6702

OKLAHOMA CITY AUTOPATCH ASSOCIATION
MEETS: 7:30 PM 3rd Tuesday, Monthly
Oklahoma Military Academy 36yh & Grand

Pres	Frank McCollom	N5FM	751-3577
V-P	Henry Israel	N5IH	722-3848
Sec/Tr	Hobe Burgan	WB5MLN	751-1646

CENTRAL OKLAHOMA RADIO AMATEURS
MEETS: 7:30 PM. Normally on last Tuesday, but see calendar. Red Cross Building, 10th & Hudson. (Alley)

ALTUS AREA AMATEUR RADIO ASSOCIATION
MEETS: 2nd Thursday, 7:30 PM
North Main Fire Station [CD]

Pres	Bob Bratton	N5AIP	782-3073
V-P			
Sec/Tr	Janice Simms	WB5WMN	477-0921



Mid-Oklahoma Repeater Inc.

A NON PROFIT ORGANIZATION
OF RADIO AMATEURS DEDICATED TO PUBLIC SERVICE

MINUTES OF THE OCTOBER MEETING

THE MEETING WAS CALLED TO ORDER BY PRESIDENT JOHN, K5QDB, AT 8:02 P.M. AT EOC.

PERSONAL INTRO DUTIONS FOLLOWED THERE WERE 53 GUEST AND MEMBERS PRESENT. IT WAS ANNOUNCED THAT THE NEW NOAA WEATHER STATION WAS NOW IN OPERATION IN THE OKLAHOMA CITY AREA .IT IS OPERATING ON 162.400 MHZ 24 HOURS A DAY WITH THE ALERT TONE BEING TESTED ON WEDNESDAY AT APPROXIMATELY 11:10 A.M., THE ALERT TONE FREQUENCY IS 1050HERTZ.

PAUL WA5HTL, and CHUCK, K5NK, TOLD US THE HIGHLIGHTS OF THE CORA MEETING AND INFORMED US THAT MORI WOULD BE RESPOSIBLE FOR THE PRIZE COMMITTEE FOR HAM HOLIDAY 79. THE NEW OFFICERS FOR CORA ARE PRES MARK, WD5DYI; V. PRES CHUCK, K5NK; SEC NATHAN, KB5BF; TRES WD5FRQ.

ELECTIONS

THE FIRST ITEM OF BUSINESS WAS THE ELECTION OF NEW OFFICERS FOR THE NEW YEAR. THE ELECTION COMMITTEE RECOMMENED THE FOLLOWING PERSONS FOR THE POSITIONS;

CHUCK, K5NK,	PRESIDENT
BILL, N5AH,	VICE PRESIDENT
JIM, K5PER,	SEC/TRES

AFTER ADDITIONAL NOMINATIONS WERE ASKED FROM THE FLOOR AND NONE WERE RECEIVED THE ABOVED NAMED PEOPLE WERE ELECTED TO THEIR RESPECTIVE OFFICE FOR THE UPCOMING YEAR.

NEW MEETING NIGHT

PAUL, WA5HTL, ASKED THE CLUB IF IT WOULD BE POSSIBLE TO CHANGE OUR MEETING NIGHT TO A FIX DAY INSTEAD OF THE CURRENT WAY WERE IT IS ON THE FIRST WEEK OR THE SECOND DEPENDING ON THE MONTH. THEN AFTER MUCH DISCUSSION ON THE SUBJECT PAUL MOTIONED THAT MORI CHANGE IT'S MEETING NIGHT TO THE FIRST TUESDAY OF EACH MONTH. CECIL, K5OK, SECONDED THE MOTION. MAC K2GKK, ASKED THAT THE WORDING BE AMENDED TO READ

THE MID-OKLAHOMA REPEATER INC. IN A SPIRIT OF COOPERATION WITH THE CLUBS OF THE GREATER OKLAHOMA CITY AREA CHANGES IT'S MEETING NIGHT TO THE FIRST TUESDAY OF EVERY MONTH.

THE AMENDMENT WAS AGREED UPON AND THE MOTION PASSED BY A 2/3 MAJORITY OF THE MEMBERS PRESENT.

REPEATER REPORTS

07/67 MARK NEWTON IS THE NEW MAINTENCE CHEIF OF THE REPEATER AND THE CALLSIGN HAS BEEN CHANGED TO WR5APF

34/94 & 450 THE NEW CALLSIGN FOR THESE REPEATERS HAVE BEEN CHANGED SINCE JULY IN ACCORDANCE WITH THE FCC TO WA5YTI/R.

THE SUBJECT OF THE CHRISTMAS DINNER MEETING WAS BROUGHT AND LARRY, WB5POW, AND RICH, WB6FYL, VOLUNTEERED TO ARRANGE FOR THE PLACE AND WOULD REPORT BACK TO THE GROUP NEXT AT NEXT MONTHS MEETING.

CHUCK, K5NK, VOLUNTEERED TO GET PEOPLE FOR THE HAM HOLIDAY PRIZE COMMITTEE.

THE PARTICIPATION IN THE TEST OF THE SIREN ON SEPT 23 WAS GOOD, HOWEVER WE STILL NEED TO GET MORE PEOPLE OUT (CONT)

"MINUTES CONTINUED"

AND PARTICIPATE IN THIS WORTHWHILE PUBLIC SERVICE. IF YOU WOULD LIKE MORE INFORMATION CONTACT JOHN, K5QDR, OR BILL, N5AH BOTH ARE LISTED IN THE C&E ROOSTER.

KEN, K5VVZ MOTIONED AND PAUL, WA5HTL SECONDED THAT THE MEETING BE ADJOURNED. MOTION PASSED.

RICH ZANNI SEC/TRES

IS YOUR STORM WARNING SIREN WORKING?

THE MORI CLUB FOR THE PAST TWO MONTHS HAS BEEN HELPING EOC TO DETERMINE THIS. THE SIRENS ARE TESTED ON THE FIRST AND THIRD SATURDAY OF EACH MONTH AT NOON.

THE PURPOSE OF THIS IS TO INSURE THAT THE SIRENS ARE IN GOOD OPERATING CONDITION AND TO REPORT TO THE EOC ANY DEFECTS THAT ARE FOUND, SUCH AS SIREN NOT WORKING OR MAYBE ITS WORKING BUT NOT ROTATING, THIS THE TYPE OF INFORMATION WE ARE SEEKING FROM YOU. SINCE THERE ARE STILL MANY LOCATIONS THAT NEED SPOTTERS WE WOULD APPRECIATE YOUR SUPPORT IN THIS PROJECT. THE 07/67 REPEATER IS USED TO RELAY THE INFORMATION TO EOC SO CHECK IN ON THE FIRST AND THIRD SATURDAY OR CONTACT JOHN, K5QDR OR BILL, N5AH FOR MORE INFORMATION. WB6FYL, RICH

WANTED: TRI BAND BEAM, CONTACT CP1KD LISTED IN THE C&E.

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C O R A S P E A K S

FROM THE PRESIDENT...

Thank all of you for your confidence in me at the recent election. It is a true honor to be in this position, and I really appreciate it. Help me by telling me your ideas, suggestions, or problems making this year another success for C.O.R.A.

This year's C.O.R.A. officers include names relatively new to the Oklahoma Amateur Fraternity. I have recently completed a term as secretary of the Bi-Centennial Amateur Radio Club and now am serving as its president for the coming year. I am involved in the Night Owl Net on 07/67 and serve as net control on Thursday evenings. My wife, Kay, WD5DYJ, keeps me organized and without her I would've never tackled this job.

The vice-president, Chuck Wilhite, K5NK, serves as a control operator of WR5APF 07/67 and is the newly-installed president of Mid-Oklahoma Repeater, Inc. He is the assistant net manager of the Night Owl Net and is net control Sunday evenings. Chuck is one of those amazing high-speed cw operators--he loosens up at about 35 wpm.

Secretary for C.O.R.A. this year is a good man--Nathan Kirby, KB5BF. Nathan (formerly WD5GWG) represents the O. U. Amateur Radio Club and is one of the hard workers responsible for the revival of the club. As you have noticed, the O. U. Club once again has input into C & E. It is good to have an officer from the Norman club in C.O.R.A.

C.O.R.A.'s treasurer this year is Ron Recer, WD5FRQ. Ron's position as a CPA makes him a natural for the job of handling the books. He enjoys operating and is loyal to his club's activities. Ron's wife, Karen, WD5HBX, who serves as Oklahoma City Autopatch editor to C & E, works out skeds on who gets to use their new Drake TR-7 rig. Both are very active in HF and 2 meters.

Here's an interesting point: All the officers of C.O.R.A. are members of other clubs besides the ones they originally represent. How's that for a fair setup? C.O.R.A. needs to operate without favoritism, and that is a good start. Each C.O.R.A. member club sends three representatives who each have a vote in C.O.R.A. activities. Make sure your club has three reps at the meetings. Everybody is welcome to come. We all cannot operate without interaction and because of this, we need your ideas to make Oklahoma amateurs united. New ideas or changes can happen fairly under this system, and it can start with you!

-73-

Mark Northcutt, WD5DYI

FOR SALE: Swan 270, 10/80, transceiver, AC/DC power supply, \$250.00. SB-200 Amplifier, \$250.00. OR both for \$499.00. Ray, WB5BTT, 732-6498.

FOR SALE: CDR Ham-M rotator and control, \$100. Hillary, N5AX, 794-8672.

FOR SALE: Novice rig, Globe Chief - 90 transmitter, Signal Corps BC-348 receiver, \$60. Also Heathkit HR-20 receiver with power supply, you fix it. \$22.50. Al, WB50HK, phone 390-2983.

WILL TRADE: Set of 28/88 crystals from Genave GTX-1T. TX: 146.28 + 12 Fundamental; RX: 146.88 - 10.7 + 3 3rd Overtone. Want 52/52, same specs. Mark, WD5DYI. Res: 842-1086. Bus: 478-1212, Ext. 225.

INVITATION: Melvin Hood, K5VWQ, and XYL, Margaret, announce the coming wedding of their daughter, MELANIE, to TOMMY RICHEY on November 18, 1978, at 6:30 P.M. at Big Creek Baptist Church, Heavener, Oklahoma.

All friends are invited. Bring your trailer, motor home, etc. and stay with us.

Central Oklahoma Radio Amateurs Inc.

All Clubs Co-operating To Advance Amateur Radio

COMMENTS
ON
RADIO
ACTIVITIES

1978 CASH FLOW

January through August 1978

	A C C O U N T		
	REGULAR	COLLECTOR & EMITTER	TOTAL
DEPOSITS:			
Advertisements		301.55	
Subscriptions		1060.25	
HAM HOLIDAY '78 receipts	5427.20		
	<u>5427.20</u>	<u>1361.80</u>	<u>6789.00</u>
DISBURSMENTS:			
Collector & Emitter expenses & postage		1437.98	
Personal Communications Fund	25.00		
Communications Center (Prize-FT-227)	225.00		
Frank Arnold (HH Expenses)	4.68		
Merril Scott (HH expenses)	20.00		
Classic Trophy	71.65		
Mark Northcutt (HH expenses & change)	50.00		
Donald Duck (HH Ladies Committee adv.)	175.00		
Vocal Okies	125.00		
Larry Kerr (HH Bingo expense)	60.00		
Mark Northcutt (HH expense per statement)	52.93		
Joe Buswell (HH dinners for guests)	37.00		
Prizes for HAM HOLIDAY '78	1700.13		
Lincoln Plaza (HH Expense)	2063.71		
Service Charges, bank	<u>2.00</u>	<u>2.30</u>	
	<u>4612.60</u>	<u>1440.28</u>	<u>6052.88</u>
NET INCREASE (DECREASE) IN CASH	814.60	[78.48]	736.12
ADD BALANCES- December 31, 1977	<u>459.67</u>	<u>669.60</u>	<u>1156.27</u>
BALANCES - August 31, 1978	1274.27	618.12	1892.39

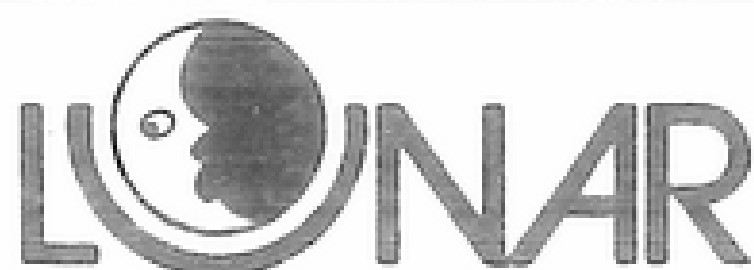
Submitted by Ken Burdick, K5AUB, Treasurer and approved.

-- SELF POLICING --

The Rocky Mountain VHF Society at its September meeting voted to require that "anyone wishing to join the RMVHFS for the purpose of using its repeaters must submit a photocopy of his current license." In addition, present members will be asked to submit a copy of their license when they renew their membership or change their calls.

This is being done in an attempt to reduce the number of unlicensed repeater users. With the advent of mail order (Sears, Wards, etc.) 2m rigs and the ease of picking an unassigned call from the Call Book, it is quite easy for an unlicensed radio operator to get set up on 2m. The monitoring and control stations have had difficulty distinguishing between the "goodies" and the "badies". The multitude of new, weird call signs being issued by the FCC hasn't helped matters either. It should be noted that the RMVHFS does not exclude non-amateurs from its membership. Membership is open to anyone who is interested in VHF radio techniques and propagation. However, if you don't have a valid license----don't use our repeaters!

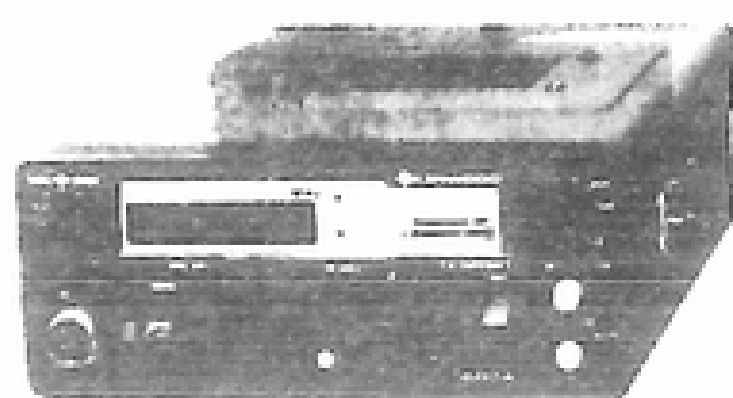
I would like to ask all of our members to assist in the policing of our repeaters. We don't want the undisciplined chaos of 11 meters to infiltrate and ruin 2 m. From QSP.



28-432 LOW NOISE FIGURE
RECEIVING PREAMPLIFIERS

AMATEUR RADIO
LINEARIZED AMPLIFIERS

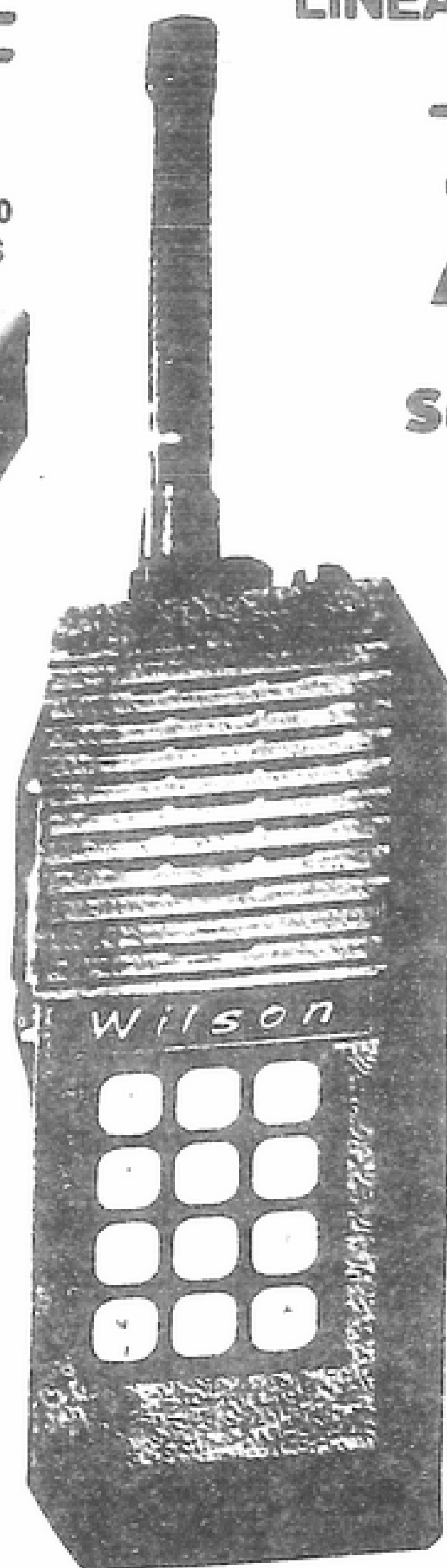
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SHORT CUT TO A SHORT CIRCUIT DEPARTMENT

Not every radio in this world is a negative ground system. This rather simple principle was emphasized to me rather forcefully after the Ham Holiday. Not that I didn't know this before, I just simply got careless. While perusing the flea market, I found a six meter Motorola PT-300 at an apparent fire sale price. I guess that I am not the only person who buys radios and then forgets to put them on the air. Feeling in a rather charitable mood and having been in the market to find a six meter rig for some time to experiment, I cleverly negotiated the price downward to something that met the restrictions of my pocketbook. The radio even included a battery pack which I looked at and quickly dumped in the nearest trashcan. Battery acid and all that usual junk associated with decomposing energy cells would not get close to my radio. Ugh.

I tested the radio and found that it blew squelch and appeared to put out power, so I stuffed it in the trunk of the car and took it home for further evaluation. Power output was the next test. Since the battery pack had already been tossed in the garbage, I jury rigged a connection to the battery pack of my PT-400, a 4 amp-hour behemoth ni-cad.

The Motorola PT series is a second generation Drag a Talkie fashioned from the parts of their HT-200. The 200 series has just the output power of the HT-200 transmitter (about 1.5 watts). The 300 series features a 5 watt amplifier following the 1.5 watt output stage. The 400 series radio has an impressive 10 watt output. HT-200's are positive ground radios and the appropriate precautions must be taken to prevent transistor interruptus if the power leads should be accidentally connected up backwards. Having a little experience in this area with several HT-200's on the service bench, I have accidentally crossed the leads on a couple of occasions with no damage done because I was using a current limited supply. Well, this time the results were disastrous when the hookup occurred. Motorola had used red wire for the ground lead and I thought that I had checked it with the VOM before connection, but, sigh, I must have missed. It was late at night. The audio from the receiver immediately disappeared along with the transmitter output. Rats!! At this point, I adopted the "out of sight, out of mind" trouble shooting technique and placed the radio in a discrete location not to be looked at for several weeks.

About a month later, the manual for the radio arrived from Motorola, so I took a few minutes to evaluate the possible damage. It appeared from studying the schematics that the audio output stage would be blown and also the transistor final output. When you refer to the schematic diagram below, it is easy to see why this is true.

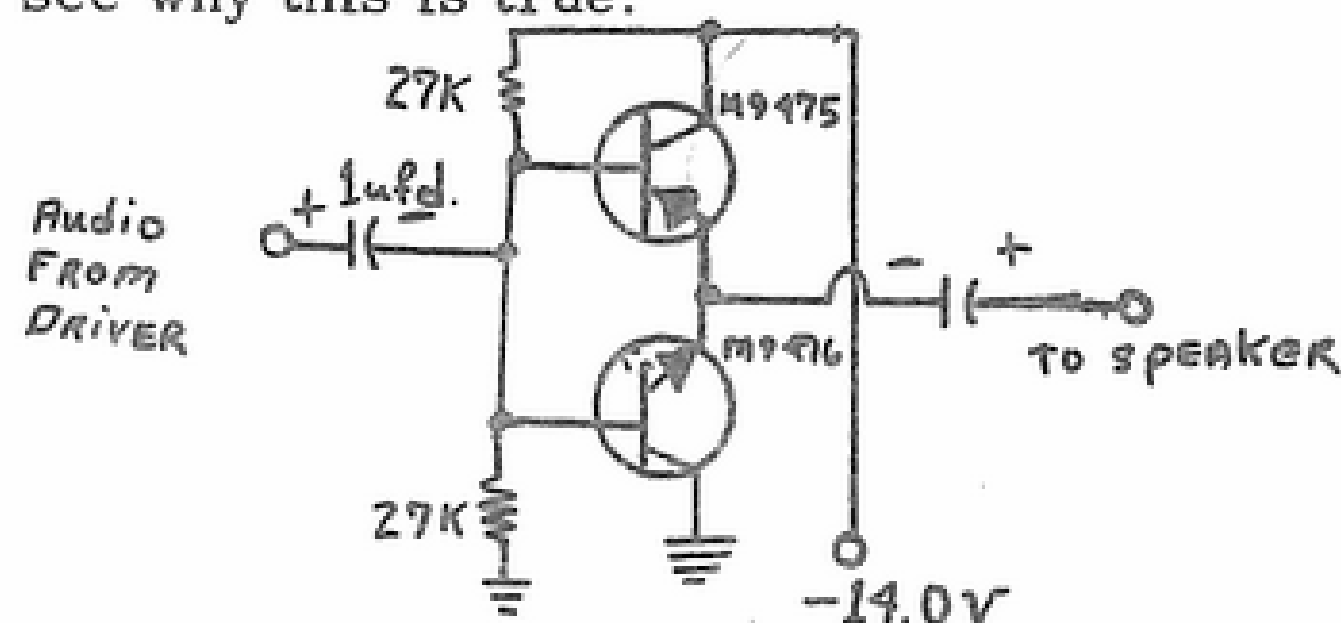


FIG 1. Receiver audio output stage

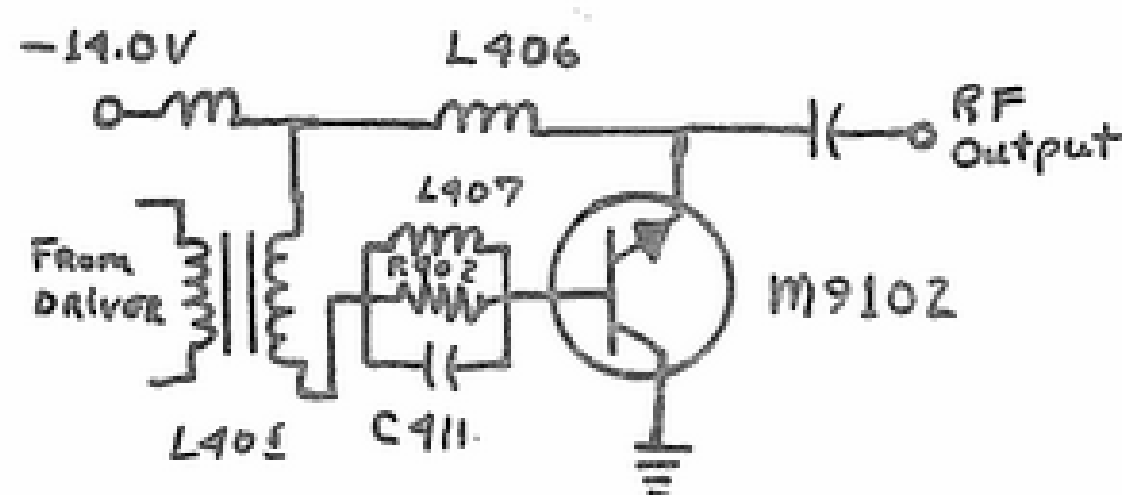


FIG 2. Transmitter PA Stage

The quasi-symmetrical output stage shown above for the receiver output is a very common circuit in Motorola portable equipment in varying degrees of complexity. In the HT-200, the stage is very much as above. The HT-220 audio sections feature a DC amplifier to stabilize the circuit. The circuit is very simple and boosts audio to about the 500 mw range. However, because of its simplicity, there are very few components that stand between it and

total annihilation when the power circuit is accidentally reversed. If you were to trace from the lower right of the circuit shown in Fig 1, you can consider what would happen if +14 volts were applied instead of the -14 volts. The first thing that the current will see is the forward biased junction of the collector and base of the M9475 transistor. Following the lead from base to base of the M9476 lower transistor, you find another forward biased base to collector junction and then to ground (positive ground). As the old expression goes, "Pow, right in the kisser." Generally one of the transistors will blow first and the other one will be protected by the fuse like action. I confirmed my suspicion with a VOM and found open junctions in both transistors. I ordered the appropriate replacements from Motorola and figured that the receiver would be back in operation as soon as they arrived. Most of the other stages are pretty well current limited by large resistors or isolated by capacitors. After studying the schematic for awhile, I determined that nothing else should have popped and a quick check with the VOM confirmed at least a DC test of this hypothesis. Only the power stages had no resistors to limit the current in the reversed polarity configuration. The transistors were dirt cheap and I got out for less than four bucks. These germanium transistors are getting hard to find.

The transmitter is a different story. Looking at the schematic confirmed what was my worst fears. If reversed polarity was applied to the power input shown in the upper left corner of Fig 2, you see quickly that it travels through the winding of L401 then into the base network of the PA and finds a forward biased base to collector junction of the M9102. I checked with a VOM and found that junction was indeed open.

Now at this point, some sharp eyed reader is saying to himself, why are transistors in both the receiver and transmitter popped since they are not on at the same time? Well, I must sheepishly admit that since I intended to check the transmitter output, I squelched the receiver, hooked up the power and without checking, keyed the transmitter. If I had checked to see if the receiver was working properly, I might never have keyed the transmitter and popped this most elegant transistor in the PA. This is a good check to always consider. If you connect up the power, always blow squelch on the receiver to make sure it is properly operating before keying the transmitter.

A quick check of the Motorola Buyer's Guide and I'll just order up one of those M9102 goodies. Yee Gods!! This transistor costs over \$50.00!!?! What to do? Well, I double checked my glasses and looked at the price again. Then I had WB6FYL look it up to make sure I saw the right price. Unfortunately, it was still the same. As K5JB said, they just don't make them like they used to and a RF transistor in a TO-3 case is an extremely rare animal these days. Motorola listed no HEP replacement (these people are no fools, they know better than to specify a HEP for the multi dollar HT special transistors. I understand that the transistor characteristics and specifications for these M series transistors are a very closely guarded secret hidden in some dark recesses of some vault down in Fort Lauderdale) Sylvania listed some replacements substitutions, but not for this \$50 baby. I will probably have to check the mechanical mounting and see if I can get one of the new tab transistors to fit and be properly heat sinked.

What this is leading up to is that I decided to incorporate a few protection goodies in the transceiver and other radios to preven this type of catastrophe from happening again. I promise you, Earthquake and the Towering Inferno had nothing on the type of disaster this was. Now, really, it can happen to anyone (ahem).

The first line protection is to install a diode in series with the plus lead of the

of the equipment to be protected, as shown below:

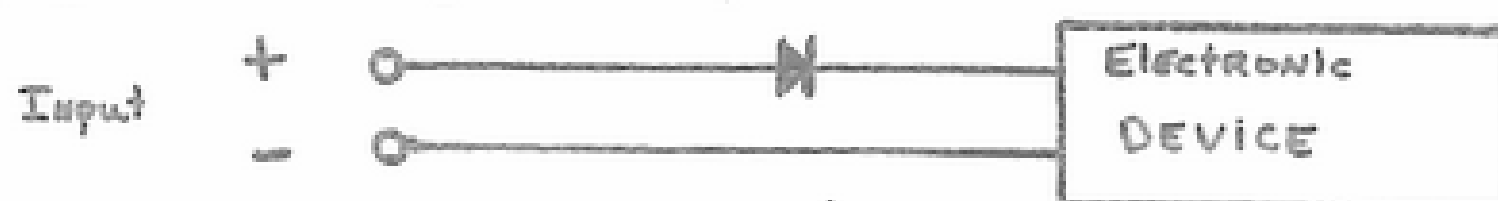


Fig 3 . Diode installed in plus lead .

Obviously, a reverse biased diode can prevent any current from flowing and doing any damage when the polarity is accidentally reversed. The only thing that you need to check is to see that the diode can handle the current drawn by the radio or you may have a very simple protector in the form of a diode fuse. For the average HT, a 1N4001 diode is quite adequate. Also check your equipment to make sure that a voltage drop of .7 V for a silicon diode will not impair its proper operation. In most cases, this is no problem. Mount the diode right at the on-off switch if possible, but in any case past the point that you would apply power.

A second configuration that I have seen is shown below. I first saw this in a Regency HR-2A. Regency uses those danged four prong Cinch Jones connectors that cannot be connected up wrong, but can go in wrong if you just stuff a wire into the end of the connector.

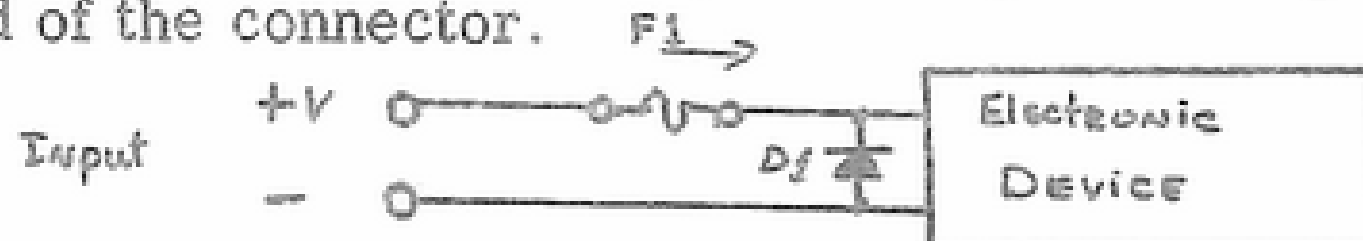


Fig 4 . Diode protection with fuse.

In this instance, when the improper polarity is applied to the equipment, the diode conducts heavily and blows the fuse. It goes without saying that you must have a fuse. The advantage of this configuration is that you do not have a voltage drop across the diode and in fact never see the diode until it does its fuse popping number. So if the diode ever goes bad (if it opens, you'll never know it, if it shorts, you'll know) and opens, you may not find out until the final transistor pops. Therefore, check the diode to see if it is good anytime you decide to test the fuse by hooking the radio up backwards (Ahem.)

If you have a circuit in which the ground "floats" with reference to the power supply ground, you may want to contemplate the use of a full wave bridge rectifier and forget polarity as shown below:

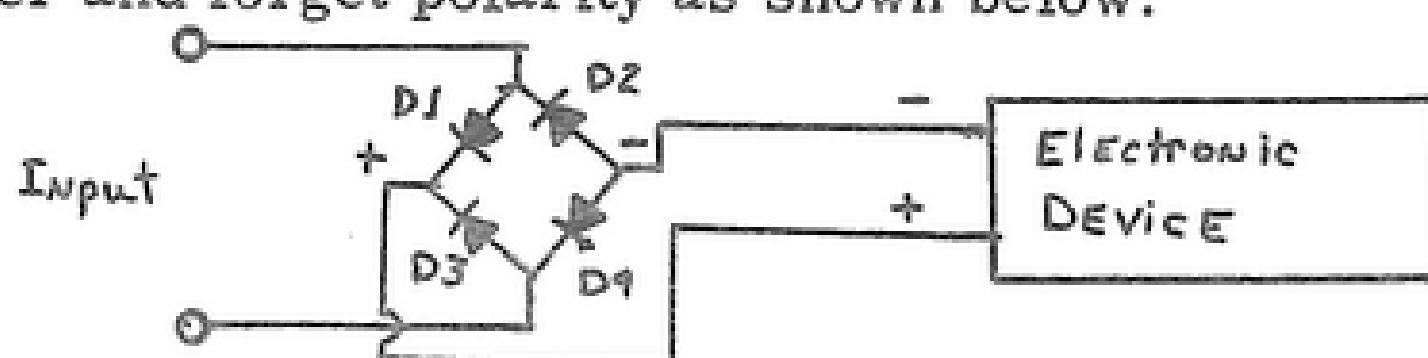


Fig 5 . Full wave bridge makes circuit polarity insensitive.

This circuit is polarity insensitive since the bridge will pass current to the positive terminal of the device no matter what polarity is applied to the input terminals. Do not try to use this configuration in a circuit that has a ground common to the power supply since this will unbalance the bridge and short either diode D4 or D2 depending upon the polarity applied to the input of the bridge. I have taken a couple of HT-200 450 Mhz radios and isolated the radios from ground and operated them floating with respect to my regular negative ground system and used the bridge for isolation. It just depends on whether or not you need any outputs (I had to isolate the RF output ground with a capacitor).

As a final touch, I will described a circuit used by Motorola in their HT's to prevent operation of the radios in the charger when the battery is removed from

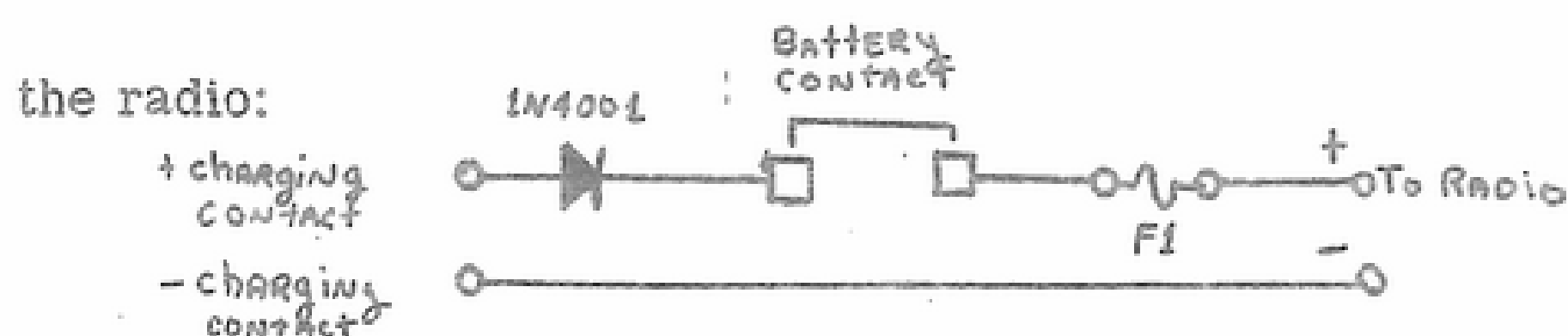


Fig 6. Motorola Protection circuit used in HT.

The charging contacts are mounted on the bottom of the HT-220 front cover and can be readily seen by turning the radio upside down. These charging pins mate with the pins located in the charging sleeve of the charger. Motorola uses a constant current charging circuit for their Ni-cads for the HT's (15 volt batteries built in a small rectangular configuration) which uses about 28 volts and a series light and resistor combination to approximate constant current. The trickly trickle charger uses about 90 volts and a NE-51 neon light in series to provide about 4 mils trickle charge. When the radio is out of the charger, there can be upwards of 90 volts on the leads of the charging contacts. If you should drop the radio in the charger without a battery and it goes directly to the switch, you could put the 90 volts to doing bad things inside and pop all sorts of goodies.

Motorola prevents this catastrophe by using the battery to complete the circuit across the charging terminals. The power input to the radio is isolated from the charger when the battery is removed. The diode is used to prevent the battery from shorting back through the charging contacts and discharging for any reason (I have seen people put batteries in their pockets and start dancing when the contacts came across their keys and began a hot polka. These ni-cads are capable of enormous short circuit current for short periods of time. No reason why this couldn't happen with a radio stuck in the pocket or set down on a conductive material. Radios have exploded when the batteries shorted and heated). If the battery should open up and you don't notice it, the circuit could be complete and should you drop it in the charger, it could be kablooie. Many people I know will not charge a battery in the radio, but, rather, take it out and charge it separately and pop another battery in the radio. The battery in a HT prevents more than 15 volts from appearing across the power leads to the radio since it is a low impedance circuit and has a 15 volt voltage source. (Thevenin's equivalent circuit).

The diode is useful, but not necessary. It also prevent operation of the K5JB seven segment digital voltmeter for checking Motorola batteries. I have taken it out of several of my radios and just shorted across it.

These circuits may seem very elemental, but they still can be very useful. They just might save that HT from destruction at the hands of your clumsy fingers. You might get out those schematics and look at some of your equipment and see if you need this type of protection. Trace the B+ lead of each stage and see if there are enough resistors or resistance or capacitors to protect each stage. Looke at the breakdown voltages of each device. Some transistors exhibit a type of zener action when a junction is reversed biased which may be considerably less than expected. It may be simpler to just install the diode. Another point, always try to use a current limited (adjustable) supply when working on equipment. This has saved my hash a couple of times. The Heathkit IP-21 supply is very good for this. It has 0 to 17 volts and current limiting to 500 ma. which is adjustable down to the miliamp range.

Micheal Salem N5MS

THE KANSAS CONNECTION - - Oklahoma University Style

One of the disadvantages of living in a college town is the extreme possibility of becoming addicted to the local hometown college football games. (Commonly known as Footballlicus Addictus). On the other hand, one of the advantages of living in a college town is the opportunity to become addicted to the local hometown college football games. No doubt this is a terminal illness and I know that in many instances, you don't have to live in Norman to be addicted to Oklahoma University football. Oh well, it does provide some type of useful activity on autumn saturday afternoons. As the expression goes, "Better Red than Dead," and I suppose in the words of some nameless philosopher, "What a way to go!" I must admit to a slight case of OU fever, but the antidote (massive injections of an exciting home schedule) is difficult to find this year with the boring home schedule this year. I thought that Missouri might stir up a little excitement, but the poor Tigers left with their collective tails between their legs. The game was basically boring and after seeing the Texas game in the Cotton bowl (how sweet it was), it was hard to go cold turkey for the next two weeks of the schedule waiting for the next home game (Kansas State). When the possibility of obtaining air passage (aboard Stewart Airlines) to Lawrence, Kansas for the OU-Kansas game turned into a reality (Larry WB5POW had managed to corralled a Piper Seneca Twin Turbocharged plane for the occasion), temptation was too great to resist. Tickets (five in all) then dropped into our hands when some friends decided not to go to Kansas. Larry himself has recently been showing signs of football fever (having gone to the Missouri game with us last year in Columbia and just getting back from Texas the week before). WD5FVI and I rounded up a couple of friends to go and split the cost of the plane, then Larry and I talked a sweet young thing into going along as a stewardess (oops, that stewardess) and Stewart Airlines Flight 102 was ready to leave Saturday morning at 9:30 a.m. prompt.

Larry dug out the charts and figured that Lawrence was just a brief 1 1/2 hour trip from Norman, so we didn't really plan on leaving too early. Larry brought the plane down to Norman saturday morning and Sally (our stewardess), Lee and Judy (the friends), and I drove over to pick up Glenn, WD5FVI and then over to Max Westheimer International Airport. I made sure that we had a sufficient contingency of radios including three UHF's (counting Larry's and mine) and one VHF. We loaded up the plane and after taking off, I broke out a bottle of Burgandy and the four passengers in the back seat loaded up again. Larry and I drank coffee and since I was flying right seat, I avoided the near occasion of sin (I couldn't fly or land the plane anyway if Larry had a heart attack or something). We had nothing stronger than a sweet roll to get the blood sugar up.

I thought about bringing my IC-30A and IC-230 combination, but that was quickly squelched when I found out that the plane had a 28 volt system. However, the cigarette plug was 12 volts (hum, fancy that?). Ahg, HT-220's are so much lighter anyway, so that's all we brought. We filed IFR to Lawrence and up to 9,000 feet we pulled into Tulsa. We then turned North and over Coffeerville, Kansas, I brought out the HT's and range checked the 444.2 Mhz and 444.1 Mhz repeaters in Oklahoma City. It appeared to be no problem when I talked to WB5ISN on 444.2 and Larry talked to K5JB on 444.1. I switched to VHF and made several calls on 146.52 Mhz with no success. I later ventured over onto the 146.94 repeater frequency and 146.88 and 146.82. I managed to pop a few repeaters and what a cacaphony!! I have 94 and 82 direct in my HT, but didn't get any answers.

I was a little more careful this time in the airplane with the HT's than the last time I rode in a twin to Dayton and the door popped open. I had been swinging the radios from a loop up near the door and talking with the remote mike.

The door popped open at about 200 mph and the plane lurched downward and to the right swinging the radios out the door and into free space. I very nearly followed them, but managed to grab them and get them back inside the plane before the plane righted. Planning no such strategy to Lawrence, I double checked the door and almost considered using some quick set epoxy to ensure integrity of the door. Larry desisted.

We had originally planned to fly to Topeka and pick up a rent car I had cleverly reserved the day before. It seems that some dope at the Lawrence International Airport had decided to close down their main strip (a 4500 foot paved goodie) to oil it (I didn't know it squeaked) leaving only a 2178 foot sod strip to land the Seneca. This was definately white knuckle time for me. As we approached Topeka, Larry slipped over and called the Lawrence airport and got a good report on the sod buster. No rain and the surface was nice and solid. We cancelled IFR and diverted to Lawrence. Larry put the plane down on the numbers (I think they were sowed in Lespediza) and a bumpity bumpity ride and braking (I was mentally dragging my feet) and we landed with space to spare.

After checking with the main airport office, we met a Tijuana Taxi driver who offered to drive us to the stadium for a buck apiece. Since the airport bus was filled to the gills and running behind, we decided to take him up on it. He was a pleasant fellow and when Judy asked what river we were driving over, he told her that she should never ask that question of a cabbie since the price for the fare would automatically go up. He said that you can't do that since the city makes them use meters instead of zones.

We found tickets were plentiful at the stadium since they didn't even have a sellout. Several people were giving them away. We had one extra ticket to get rid of, but it was definately a buyer's market. I had some work to do so I split from the rest of the crowd and they went off in search of quick eats. Fortunately, we were never out of radio shot on UHF direct. We were able to easily coordinate all activities between Larry, Glenn and myself with the 3 radios.

Not much I can say about the game that you haven't already read in the papers. I happened to be standing on the sideline about the time that Kansas scored the last touchdown. The crowd was so loud that I could barely hear the PA announcer call the penalty plays that gave Kansas their two opportunities to score two points. There were some mighty nervous Sooners and some pretty excited Kansans. The last pass play could have gone either way.

After the game, it took me a while to get things wrapped up and we used the UHF radios to coordinate a meeting at the north end of the stadium to catch a cab. Back to the airport and we loaded up again and this time the ride was to get plane back up in the air. No problem with many feet to spare.

I checked out the VHF and UHF radios again on the way back. I'm not sure if it was my position in the plane or what, but we had to get considerably closer to hear the OKC UHF systems. I called Dennis and told him we were on the way back and then called Roger WA5JXX to invite him to go eat dinner. The flight back was directly to Oklahoma City flying in on the wings of KOMA on the Directional Beacon. We were back by 7:15 p.m. in Norman.

This is the only way to go. Total travel time was about 3.5 hours round trip (this included the time for flying the plane down from Will Rogers). Ground speed with the tail wind going up averaged 230 miles an hour with an occasional gust to 250 miles per hour. I visited with a friend who said he drove 7 hours one way.

Micheal Salem N5MS



Club NEWS

W5LW
The Elmer G. Glick Memorial
Station

MINUTES OF CLUB MEETING

THERE AREN'T ANY! THAT'S BECAUSE THERE WAS NO BUSINESS MEETING. INSTEAD, THE CLUB MET OUT AT OVERHOLSER FOR A COOKOUT. THERE WERE ABOUT 20 MEMBERS AND GUESTS PRESENT AND ALL HAD A GOOD TIME. SEE HIGH TECHNOLOGY WEENIE COOKING, BELOW FOR THE CLUB'S CONTRIBUTION THIS MONTH TO AMATEUR RADIO AND IT'S ALLIED PERIPHERAL ASPECTS.

AT NEXT MONTH'S CLUB MEETING, NOVEMBER 17, SOMEONE WILL HAVE TO TAKE MINUTES OR GET THEM, AND OTHER CONTRIBUTIONS TO THE COLLECTOR AND EMITTER, TYPE THEM UP AND GET THEM TO JOE HARDING. I WILL BE OUT OF TOWN AND KEN, WB5KHU, WILL HAVE THE DETAILS.
JOE, K5JB, SEC'Y

SILENT KEY

DEE KELLY, W5YGY, WENT SILENT KEY FIRST PART OF WEEK ENDING OCTOBER 21 AT THE AGE OF 56. HE HAD BEEN AN AMATEUR 12 YEARS, A MEMBER OF MASONIC LODGE 523, A MEMBER OF THE SHAWNEE RIFLE AND PISTOL CLUB AND SECRETARY FOR TWO YEARS OF THE SHAWNEE AMATEUR RADIO CLUB. HE WAS CIVIL DEFENSE DIRECTOR FOR THAT AREA. HE WAS FOR 13 YEARS SPECIAL COMMISSIONED OFFICER OF THE SHAWNEE POLICE DEPARTMENT. ALSO, HE WAS A MEMBER OF THE DISABLED AMERICAN VETERANS, A MEMBER OF VFW AND AMERICAN LEGION. HE WAS A LICENSED PILOT AND RETIRED JEWELER. FUNERAL WAS AT SHAWNEE, FRIDAY, OCT.20. DETAILS CONTRIBUTED BY FRANK, W5PDH
RELAYED BY GEORGE, WB5NMK

ANOTHER WEINER ROAST?

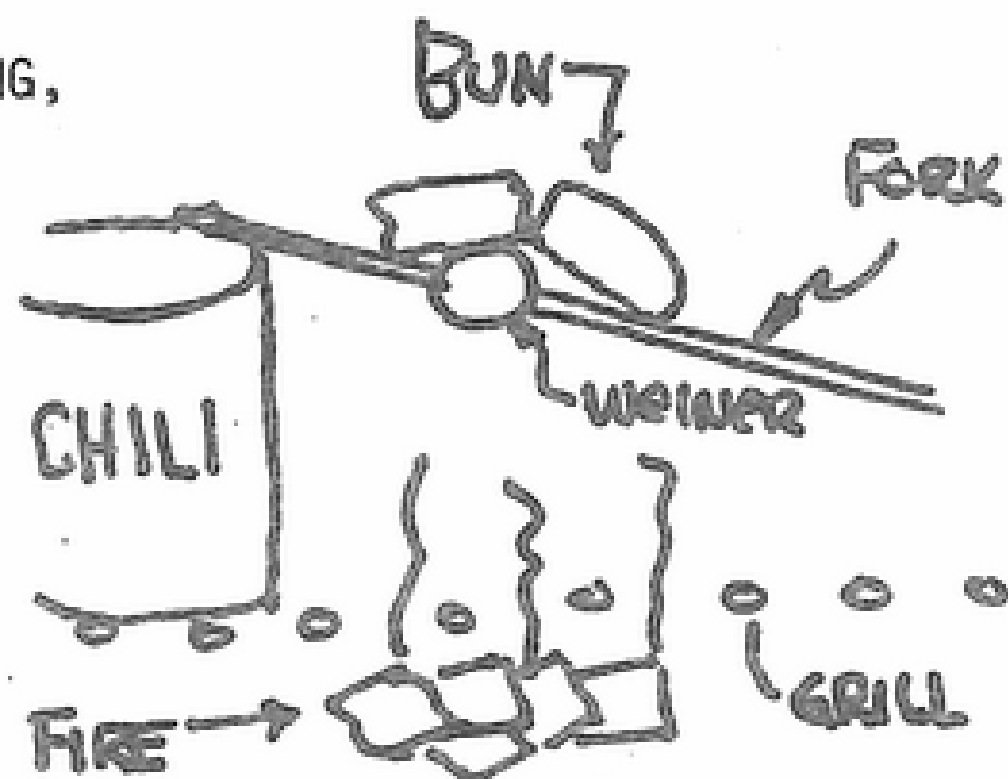
YOU BET! BOB, W5HXL, FAST BECOMING WEINER ROAST CZAR IN THE AREA, REPORTS THE NEXT ONE WILL BE AT LAKE THUNDERBIRD. THIS IS SOMEWHAT AN ANNUAL AFFAIR WITH THOSE WHO HAVE CAMPING EQUIPMENT MAKING ONE LAST FLING AT PORTA-SHACK OPERATION BEFORE OLD MAN WINTER RUNS THEM INSIDE.

THE EVENT TAKES PLACE AT THE LITTLE RIVER STATE PARK, CLEAR BAY AREA ON THE SOUTH SIDE OF THE LAKE. GO EAST ON HIGHWAY 9 ABOUT 10 MILES EAST OF IH-35 AND LOOK FOR SIGN ON NORTH SIDE OF THE ROAD. IF YOU GET TO THE DAM, YOU HAVE GONE TOO FAR. ONCE IN THE CLEAR BAY AREA, GET ON 52 AND FIND OUT WHERE EVERYBODY IS. IF YOU DONT HAVE 52, FIND SOMEBODY WHO IS WITH IT AND FOLLOW THEM. THE COOKOUT WILL BEGIN AROUND DUSK NOVEMBER 18.

HIGH TECHNOLOGY WEENIE COOKING

I GUESS WHEN RETIREMENT RELIEVES ONE OF THE BRAIN SAPPING RESPONSIBILITY OF MAKING A LIVING, IT ALLOWS CREATIVITY TO MANIFEST ITSELF MORE FREELY. TAKE BOB, W5HXL, FOR EXAMPLE. SINCE RETIREMENT HE HAS BECOME A MOST REMARKABLE FELLOW. I OBSERVED SOMETHING AT THE WEINER ROAST THE OTHER NIGHT I THOUGHT I HAD BETTER REPORT IN TIME FOR YOU TO BE PREPARED FOR THE LAKE THUNDERBIRD COOKOUT. THE FIGURE PRETTY WELL DESCRIBES HOW EFFICIENT ONE CAN BE WHEN HE HAS THE CREATIVITY TO MAKE THINGS. WHILE EVERYONE ELSE WAS NUMBLY STAND AROUND FIRES HOLDING WEINERS ON VARIOUS CONTRAPTIONS, BOB WAS STANDING AROUND WITH HIS HANDS IN HIS

POCKETS SPINNING YARNS AND LISTENING TO A FEW FROM THE HOT DOG TWIRLERS WHO COULD BE DISTRACTED FROM THEIR PRIMARY DUTIES. BOB HAD PROPPED A HOD DOG FORK BETWEEN HIS CHILI CAN AND THE EDGE OF THE GRILL. NOT ONLY WAS HE LETTING THE CHILI AND WEINER GET HOT BUT HE WAS WARMING THE BUN AT THE SAME TIME. THERE ARE SUBTILE DETAILS YOU HAVE TO GET FROM BOB HIMSELF BUT I THINK PERHAPS I SHOULD LEAVE SOMETHING TO THE IMAGINATION FOR YOU CREATIVE COOKERS TO ELABORATE ON.
JOE, K5JB



900 MHz CB

LAST WEEK I HEARD AN ARRL BULLETIN THAT INDICATED THE FCC IS GOING TO ISSUE A NOTICE ON PROPOSED RULE MAKING FOR A NEW CB SERVICE ON 900 MHz. THEY ARE CALLING IT PERSONAL RADIO SERVICE, PERHAPS WITH THE NEW NAME, IT'LL SMELL BETTER THAN CB. THIS SHOULD SIGNIFY SOME MEASURE OF RELIEF OF PRESSURE ON 220 MHz, FROM WITHIN OUR OWN COUNTRY, ANYWAY. THE REASONS GIVEN FOR SELECTION OF 900 MHz WERE FIVE. 1. BETTER CHANCE FOR COORDINATION BETWEEN US AND THE COUNTRIES OF MEXICO AND CANADA. 2. LESS POTENTIAL FOR TVI. 3. NO DISPLACEMENT OF EXISTING RADIO SERVICE. 4. LESS EXPENSIVE TO ADMINISTER. 5. MORE SPECTRUM AVAILABLE.

I WAS GLAD TO HEAR OF THIS DECISION. CB COULD HAVE BEEN A GOOD THING IF IT COULD HAVE BEEN USED AS IT WAS INTENDED. UNFORTUNATELY PEOPLE BEING AS THEY ARE AND HIGH FREQUENCY RADIO PROPIGATION BEING WHAT IT IS, THERE WAS JUST TOO GOOD AN OPPORTUNITY FOR PEOPLE TO GET INTO MISCHIEF. THE 900 MHz BAND WONT BE ANY MORE ATTRACTIVE TO THE STERIOTYPE CB HOOLIGAN THAN THE PRESENT CLASS A BAND IS AND I THINK THAT BY AND LARGE THE NEW BAND WILL SERVE THE NEEDS OF THE SMALL USER PRETTY WELL. I DON'T THINK THE FEDS WILL EVER CLEAN UP THE MESS ON 27 MHz, EVEN IF THEY SHUT IT DOWN COMPLETELY; THERE ARE TOO MANY CLOWNS ENJOYING THEIR ANONYMITY WITH TOTAL DISREGUARD FOR THE LAW.

BUT MORE IMPORTANTLY, I WAS GLAD TO HEAR OF THE DECISION BECAUSE EXPLOITATION OF 900 MHz WILL GIVE THE DESIGNERS AND EQUIPMENT MANUFACTURERS A REAL INCENTIVE TO MAKE INVESTMENT IN TECHNOLOGY THAT WILL YIELD SOME CHEAP AND PROBABLY NEW METHODS TO WORK WITH UHF. AS AN AMATEUR IN RADIO TECHNOLOGY, I AM INTERESTED IN NEW THINGS, BUT PARTICULARLLY, THINGS THAT ARE SIMPLE AND INEXPENSIVE SO THAT THEY ARE EASY TO WORK WITH AND NOT TOO CATASTROPHIC IF THEY BURN UP! JOE, K5JB

CONFEDERATE AIRFORCE-AIRSHO 78

I HAVE BEEN OUT OF TOWN QUITE A BIT LATELY BUT NONE OF MY TRAVELS HAVE BEEN WORTH TALKING ABOUT UNTIL I WENT TO THE CONFEDERATE AIRFORCE AIRSHO 78 THE WEEKEND OF OCTOBER 7 AT HARLINGEN TEXAS. A PARTNER OF MINE AND I FLEW DOWN ON THURSDAY AND RETURNED SUNDAY NIGHT. I WENT DOWN TO HELP THE OKLAHOMA WING WORK ON A DONATED C-46 CURTISS COMMANDO AND START GETTING IT READY FOR ITS FLIGHT HOME TO ITS NEW BASE AT MAX WESTHEIMER FIELD IN NORMAN.

THURSDAY, FRIDAY AND SATURDAY WERE PLAGUED WITH ALMOST STEADY RAINSHOWERS CAUSING THE MEAGER TURNOUT TO BE SOMEWHAT MISERABLE. I DIDN'T GET TO SPEND TOO MUCH TIME ON THE AIRPLANE BECAUSE I WAS DRAFTED TO TAKE PICTURES FOR DUTY LOG A PUBLICATION THEY PUT OUT EACH YEAR SHOWING CANDID PHOTOS OF ACTIVITIES RELATED TO THE AIRSHOW.

I MISSED THE AIRSHOWS PUT ON BY THE CONFEDERATE AIR FORCE IN OKLAHOMA CITY AND NORMAN A FEW YEARS AGO SO IT WAS ALL NEW TO ME. THE ONLY OTHER OKLAHOMA AMATEUR OPERATOR I WAS AWARE OF THERE WAS ABE, W7LLP, WHO, AS YOU MIGHT REMEMBER FORM LAST MONTH'S C&E, IS ONE OF THE CAF COLONELS. (EVERYBODY IS A COL.) IN MY WANDERING AROUND, HOWEVER, I RAN INTO A BUNCH OF COLONELS WHO WERE PROVIDING COMMUNICATION SERVICE VIA AMATEUR RADIO FOR PRIMARILY THE GROUND SAFETY CREWS. THEY WERE ALSO PROVIDING POINT TO POINT COMMUNICATIONS FOR PILOTS WHO WERE PARKED ON THE FAR SIDE OF THE FIELD. ANTICIPATING A LARGE INFLUX OF TRANSIENT PILOTS WITH PRIVATE AIRCRAFT, THE AIRSHOW ORGANIZERS HAD SET UP PARKING ON THE FAR SIDE OF THE FIELD, APPROXIMATELY TWO MILES FROM THE OTHER ACTIVITIES. PEOPLE WHO CHOSE TO CAMP WITH THEIR PLANES WERE ABLE TO COMMUNICATE VIA AMATEUR RADIO WITH THE OPPOSITE SIDE OF THE FIELD VIA THE AMATEUR RADIO OPERATORS STATIONED THERE.

UNFORTUNATELY AS I TYPE THIS, I DO NOT HAVE ACCESS TO MY NOTES AND DON'T HAVE CALLS OF ANY OF THE OPERATORS I MET. SOME OF THEM HAD PREPARED BUSINESS CARDS WITH THEIR CALLS ON THEM AND I USED THESE CARDS FOR ADDITIONAL NOTES. SEVERAL OF THE FELLOWS WERE ORGANIZED WITH A COMMUNICATION VAN FROM THE DALLAS-FT. WORTH AREA. THE AMATEURS WHO WERE SET UP IN THE BOMBER HANGAR IN THE CENTER OF ACTIVITIES WERE, BY AND LARGE, FROM THE RIO GRANDE VALLEY AREA.

THE AIR SHOW WAS PRETTY DARNED GOOD. IN ADDITION TO THE AIRPLANES PUT IN THE AIR BY THE CAF (ABOUT 50), THERE WAS THE SHRIKE COMMANDER ACT PUT ON BY BOB HOOVER, THE BLUE ANGELS, ART SCHOLL AND HIS CHIPMUNK, A USMC HARRIER DEMONSTRATION AND AEROBATICS BY NUMEROUS OTHERS...LOOKING FORWARD TO NEXT YEAR. JOE, K5JB

FOR SALE GE MASTR, HH PORTABLE (56KA SERIES) 2W, 8 CH, WITH 82, 76, 94, 67, 03, TT PAD, CHARGER. \$300.00. MARK, WB5SLA, 722-2607, AFTER FIVE.

Big Studies Made By 'Ham' Radio

Editor's Note: Citizens Band radio has been the big topic for several years, but amateur — or "ham" — radio has been quietly undergoing a revolution in capabilities. Reporter Steve Walden brings Journal readers up to date on ham radio progress in a series of articles beginning today.

By Steve Walden
Staff Writer

H.B. Zachry, a Midwest City amateur radio enthusiast, says "there are only two things you don't talk about on ham radio — politics and religion."

Even without these burning topics ham operators are keeping busy on the airwaves these days with talk about computers, new satellites, moonbounce and even amateur television.

Ham operators have been around since the advent of radio and are keeping pace with scientific advances, often contributing to those jumps.

No longer content with simply sending codes and voice transmissions, amateur radio operators are experimenting with home TV stations, are organized into teletype and facsimile photo transmission networks and are preparing for the time when home-built computers can "talk" to each other.

Bob Ashby, president of the Central Oklahoma Radio Amateurs, the umbrella organization linking seven local radio clubs, estimates there are around 3,000 amateurs in the Oklahoma City area.

Ashby said the term "amateur" is misleading because many of the ham operators are professional electronics engineers who build their own equipment and always have an eye to the future.

Early experiments by ham operators aided in establishing trans-Atlantic communications, locating downed aircraft and predicting what transmission problems to expect when TV was being perfected.

The hobbyists are now working on advanced satellites for worldwide amateur communications.

A number of Orbiting Satellites Carrying Amateur Radio (OSCARs) have been in use since the late 1960s. Now a newer, more advanced AMSAT Phase Three model is being built for use by the amateurs, Zachry said.

The satellites are for all amateurs to use, except for times set aside for purely educational uses, he said.

The satellites were funded by amateur radio enthusiasts and launched by NASA, Zachry said.

Home computers are edging their way into amateur radio, with some local hams already using them to store radio logs and directing antennas, Zachry said.

He said the Federal Communications Commission is working out guidelines to be used when hams broadcast with the computers and the computers begin to "talk" to each other.

Zachry said some operators in the Oklahoma City area are beginning to experiment with moonbounce, a technique where signals are transmitted to the moon at an angle that bounces them back to hard-to-reach spots on the other side of the earth and for distances beyond the range of other transmissions.

Other hams are becoming concerned with the crowding of airways that has occurred with the growth of radio and are working on ways to narrow the amount of frequency band needed to transmit, he said.

The newest rage among some ham operators is amateur television.

Ten city operators have their own TV studios and about another 10 are equipped to pick up the broadcasts, Zachry said.

He said costs for the amateur TV studios can be as low as \$200 because much of the equipment is surplus. All that is needed is a transmitter converted to send video signals, a closed circuit TV camera and a TV set converted to pick up the signals, he said.

Ashby agrees that although the hams are becoming more inventive the costs have not skyrocketed.

He attributes this partly to the fact that the hams are allowed by the FCC to build their own equipment.

"It's kind of like fishing — you can get by with a bamboo pole and a string or go for the deluxe works," he said.

He said the average ham in Oklahoma City spends between \$1,000 and \$2,000 on equipment.

Although ham radio is mainly a hobby it is also used for public service and some of the local hams are banded together into weather networks to call in reports to the weather service and TV stations during threatening storms.

The ham operators also have a broadcasting station set up at the Oklahoma City American Red Cross office to supplement Red Cross communications during emergencies.

Some of amateur radio also are being used to transmit 'third' party messages for missionary groups around the world, made possible by arrangements made by the U.S. State Department and foreign governments, Zachry said.

Next: Hams on TV.

From:

*** THE OKLAHOMA JOURNAL, MONDAY, OCTOBER 23, 1978

OPENING IN NOVEMBER

KRYDER ELECTRONICS

YOUR COMPLETE AMATEUR RADIO STORE

OWNER/MGR. IN OKLAHOMA CITY: CHUCK GUSCHKE N5SW



YAESU



Dentron



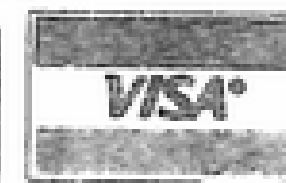
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MEETING HIGHLIGHTS

The September meeting was, as everyone by now knows, a successful swap meet where many were able to add to their collection of FB things. There was not a formal meeting but this did not stop everyone there from having a good time. The high point of the meeting was the "CASH DRAWING" that everyone was looking forward to. The only problem is there can only be one winner, and for most of us this is a definite drawback. The drawing did turn out to be a success tho with funds raised for the building, and Joe, WA5ZNQ, walking away with his portion of the proceeds amounting to \$15.00. Many thanks to Lloyd for taking care of the drawing in Hobes absence.

IS FRANK REALLY AN HONORARY CAJUN

THANKS!!!

The Oklahoma City Autopatch Association wishes to extend a "KILOWATT THANK YOU" to the individuals who have contributed their time and/or construction materials towards the new building to house the repeater equipment. This, of course, will assure the "WEATHER NET" will be on the air under even the most adverse conditions. Following is a list of those who have helped and/or donated materials:

WA5CZN, Bob "Doc" Goodhead
WA5ETV, Gary McCormick
N5FM, Frank McCollum
WD5FXP, John Young
W5GDL, Chet Hazelwood
WD5HUC, Dolph Irick
N5IH, Henry Israel

WB5MLN, Hobe Burgan
K5PJU, Bob Williams
WB5PTQ, Merrill Scott
N5RC, Bob May
K5SXJ, David "Fergie" Ferguson
WB5ZOI, Lloyd Wright
Murphy-Perkins Ready Mixed Concrete Co.

Apologies to anyone who has assisted with the construction of the building who may have been overlooked.

THANKS AGAIN

The Autopatch Association would also like to thank Charlie Green, WA5JGU, for donating finals for our six-meter repeater.

PROGRESS REPORT

The building for the "SEVERE WEATHER WARNING NET" is about ready to take some permanent shape. Frank reports that the floor is finished, and now ready for Bob to start laying concrete blocks. I understand Bob did not even know he knew how to lay them until he was told. Good luck Bob.

OCTOBER MEETING

There is not much to report about the October meeting. The main spot for the meeting, a surprise speaker, was stricken with a case of flu and had to cancel. We do wish him a speedy recovery.

The November meeting will be a swap meet so be sure to come out and to bring all your "swappables". It is also planned to have another "CASH DRAWING". Make plans on being there.

TOWER REGS

According to HR Report the negative effects of amateur antenna structures on neighborhood property values is the real issue in many anti-tower zoning laws and anti-antenna suits, the Personal Communications Foundation reports. It's the issue in the N6QQ case (HRR 220), where the city of Cerritos has agreed that N6QQ's tower was structurally sound and its safety was not an issue.

Professional help on the property value issue is being sought by the PCF for the N6QQ case, which the Foundation believes could have a negative effect on Amateurs' antenna rights nationally if it goes against N6QQ. Real estate appraisers, realtors, or others who could provide expert opinions on the antenna vs property value issue should contact Ken Widelitz, WA6PPZ, at the Personal Communications Foundation, 10960 Wilshire Boulevard, Suite 1504, Los Angeles, California 90024, (213)478-1749.

FOR SALE

HEATHKIT SB-400 TRANSMITTER and SB-300 RECEIVER, with SPEAKER, MANUALS, and CONNECTING CABLES. Contact Ron, WD5FRQ, 751-5378.

ICOM VHF TRANSCEIVER IC-21A, ICOM DIGITAL SCANNING VFO DV-21, with CONNECTING CABLES, entire package \$499.00, Contact Guy, K5GL, 787-9547.

COMPLETE ROBOT SLOW SCAN TV SYSTEM, CAMERA, LENS, MONITOR, ETC. Complete system for \$400.00, Contact Jay, K5JL, 787-9545.

HR REPORTS

ELLEN AND BOB WHITE have both tendered their resignations and will be leaving the League late in October. Ellen, W1YL, and Bob, W1CW, have been with the League just over 26 years. Bob headed the DXCC program for many years, but most recently had set up and was running the ARRL Outgoing QSL Bureau, while Ellen has been a key member of the Communications Department and was slated to take over from George Hart when he retires later this month.

Return of repeater licensing with mandatory frequency coordination is being urged by WB2YGI, vice president of the Tri-State Amateur Repeater Council. In communications to repeater councils and groups across the U.S.. Pete, acting as an individual but with the support of Tri-State, is asking for support for a petition urging the FCC to reinstate repeater licensing in an attempt to turn around the growing problems of unrestricted repeater growth. He cites interference from overlapping coverage and technically poor systems, and feels that a return to licensing would restrain would-be repeater operators and that mandatory coordination would avoid many problems before they can develop.

THE FCC'S FEE REFUND PROGRAM is supposed to get under way by the first of the year, with FCC licensees who paid more than \$20.00 for their licenses first in line for reimbursement. Details of how all this is to be done have yet to be worked out, as the amount to be repaid is to be the fee less the license's "value" to the applicant (how much is a 2-letter call worth?). A Notice of Inquiry, soliciting comments on how such values can be derived and other aspects of the program, will come out first. About all that seems certain at this time is that Amateurs who paid \$25 for a special call sign are due to receive something back, and they'll be in the first group to be repaid.

BIOLOGICAL EFFECTS OF RF radiation will be studied by a newly formed professional group, the Biomagnetics society. For membership information, write to Box 3651, Arlington, Virginia 22203.

AMATEURS UPGRADING have a problem if they appear for their exam without bringing along a copy of their license. Paragraph 97.47(a) of the Rules requires that the original or a photocopy of the applicant's license accompany every application for modification, so forgetting that copy, can cause a serious delay. It's not a good idea, of course, to submit the original.

FCC'S AMATEUR EXAM Study Guides outline what's needed to pass each class of Amateur license test. They are excellent references for those preparing to become Amateurs or to upgrade. The guides are available on request from any FCC Field Office.

YO OK FOR 160-METER operation has been granted by the Rumanian government, to be effective January 1.

4LØRK, RECENTLY ACTIVE, is in Krasnoyarsk. ——— QSL via UWØAF.

CHATHAM ISLAND is due on October 27 through November 6, 160 through 10 meters plus 2 meters and OSCAR. SSTV is also being considered, plus a special effort to work Novices 10 kHz up from the lower edges of their subbands. QSL to N2CW.

LU3ZY, SOUTH SANDWICH, showed up on 14200 kHz and worked a number of U.S. and VE stations despite the resulting turmoil. LU2AFH MCed the action, taking lists and attempting to keep order in the chaos. LU3ZY promised to show up almost every evening at 2300Z. 1100Z is the alternate time. All activity is by list.

WILL JAY REALLY OBTAIN DXCC ON 450 ???

PEOPLE TO CONTACT

INPUT FOR C&E: Contact Karen Recer, WD5HBX

IDEAS FOR PROGRAMS AT MEETINGS: Contact Sully, WB5YLZ,

FOR MEMBERSHIP IN THE AUTOPATCH ASSN: Contact Hobe, WB5MLN

FOR SALE

KLM Multi 7 two meter FM mobile rig with memory channel. Contact Henry, N5IH at 722-3848

MONEY ISN'T EVERYTHING, BUT IT SURE KEEPS YOU IN TOUCH WITH THE KIDS.

DON'T BE TOO CRITICAL OF YOUR WIFE, LOOK WHERE THE RAW MATERIAL CAME FROM.

NAVASSA ISLAND (KPl)

We are pleased to report that everything is DEFINITE for the fall DX-Pedition to Navassa Island. Landing permission has been acquired from the U.S. Coast Guard. Boat arrangements from Kingston to Navassa Island have been finalized. Pending weather and landing difficulties, we plan to be on the island 25 NOV. and stay thru 2 DEC. The operation will consist of four (4) stations operating simultaneously on 80-10 meters on both SSB and CW. The Northern California DX Foundation and the Long Island DX Association are helping support the operation.

THE CALL SIGNS for the operation will be as follows:

NØTG/KPl for SSB WØRJU/KPl for CW
WØZH/KPl for all OSCAR Mode "B"

QSL's will be via:

NØTG (formerly WØTGB)
Randy Rowe
3237 Connecticut Dr.
St. Charles, Missouri 63301

PLEASE SEND AN SASE WITH YOUR QSL

FREQUENCIES OF OPERATION:

CW	3505	7005	14030	21030	28005	kHz
SSB	3795	7180	14205	21280	28550	kHz

Operation will be mostly split, listening 5-10 kHz up.

Listening procedure split/transceive, districts, U.S./DX,
etc. will be announced during operation.

There has been no activity from Navassa Island since the last DX-Pedition in 1974. The demand for CW should be especially heavy. There has been no CW activity from Navassa since the DXCC CW Award was established.

Thanks to all for the interest and support. Help us pass the word to others. We want to work as many stations as possible.

73 from the Navassa crew;

WØRJU	Dave Bowker	St. Louis, Mo.
WØZH	Myron Kern	St. Louis, Mo.
WBØRSL	Tony Trice	St. Louis, Mo.
NØWL	Joe Markowski	St. Louis, Mo.
NØTG	Randy Rowe	St. Louis, Mo.
K2KA	Sy Adler	Cherry Hill, NJ
W2PAU	Miles(Brownie) Brown	Cherry Hill, NJ
W6OIG	Jon Lindsay	Fresno, Ca.

xx·xxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxx·xxxxxxxxxx

If you feel you would like to help finance the DX-Pedition you can order a personalized computer printout of beam headings to each ARRL country prefix from your QTH. Minimum donation is \$5.00 with all proceeds going to the DX-Pedition. Order from:

J. Markowski, NØWL
900 Dyerdown Ave
Ferguson, Mo. 63135

FOR SALE: 6 METER TWO KILOWATT PLUS AMPLIFIER. Contact Henry N5IH 722-3848

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O.U. ARC HAS NOVICE CLASS

October 5 saw the O.U. ARC starting an on-campus novice class. The class has about 10 persons. The last day of class will be the same as the last day of O.U. classes. Students are receiving electronics, rules and regs, and operating only. No code is being taught in class. Students are expected to listen to code every-day on their own initiative. The class is going well so far. Your editor is class proctor and the ARRL lesson plan is being used. Classes are being held in Room 449 of the Carson Engineering Building on the Main Campus. The 4th floor is the same floor as the Ham Shack. All future club meetings and classes will be held in the same room or close by. Do make a mental note. The Engineering Building is on Boyd Street across the street from Across The Street Restaurant. Time is 7:30 - 9:30 PM every Thursday night.

NOVICE CLASS SCHEDULE

<u>Date</u>	<u>Module</u>	<u>Subject</u>	<u>Instructor</u>
October 5	1	Introduction	Nathan Kirby, KB5BF
October 12	2	Intro. to Elec. Rules & Regs.	Nathan Kirby, KB5BF
October 19	3	OHM's Law, Power Rules	Jess McKenzie, AF5X
October 26	4	AC, Inductance	Dave White, N5DW
November 2	5	Capacitance Impedance	Bill Oliver, K5KDR
November 9	6	Rectifiers, Tubes, Transistors	John Wustenberg, WD5EKT
November 16	7	Amplifiers Oscillators	John Stehr, N5ABC
November 30	8	Antennas Propagation	Gerald Tiffin, W5VUK
December 7	9	Transmitters QSO's	Alan Wormser, WB5QLF
December 14	10	Operating Safety	Mike Salem, N5MS

The code test will be given to individuals as they feel they are ready. Exams will be requested upon completion of code test.

W5UZD and K3TGY VISIT ARRL SAN DIEGO CONVENTION

Louis de Stwolinski, W5UZD, recently returned from the ARRL national convention in San Diego. Louis said it was all very interesting especially the sessions on computers. Louis, when not talking on that Wilson talkie of his, has been dabbling with the home computers lately. Louis summed his trip to San Diego up with these words. "I had a good time but kept my record unbroken. I have yet to win anything at these Hamfests and conventions." Maybe Louis' luck will change - we hope so. K3TGY, better known as Bill Broudy, was also there as a ham equipment exhibitor. Bill is a member of the AC ARC and lives in Moore. One of Bills interests is teletype. OU ARC and Norman area hams are glad Louis and Bill had a good time.

PHOTOS SNAPPED

The Alpha Sigma Delta Radio Society posed for its yearbook photograph on October 19. Individual prints of the group will be available for sale.

CLUB GETS T-SHIRTS

Jim Gardner, our hard working and fearless leader, designed a club T-Shirt. These are really comfortable. The club paid the one time silk screen charge. O.U. students and Norman hams who are club members are encouraged to contact Jim Gardner. He is taking orders for the second group purchase.



EDITOR CORRECTS MISTAKE

As many times as I have talked to Ford Michael on 2 meters, I cannot remember getting his call sign wrong. Yet I listed Ford's call wrong in last months column. His call is not WA5AIP but W5AIP. When I caught the error reading the column, it was too late. When I called Ford to apologize, he being the gentlemen he is, insisted I not worry about it. Well, it bothered me and I regret the error and now wish to correct the error.

UPGRADES

Sam Barrett, WA5RPP - Advanced to Extra
Jess McKenzie - Change call from WB5UWB to AF5X

Editor's Note: As of press time, this is all I know about. Please telephone me if anyone knows of any more upgrades. I will get them in next months issue.

Nathan Kirby
Nathan Kirby, KB5BF

Cecil E. Pegors, Manager 787-0560

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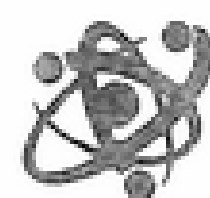
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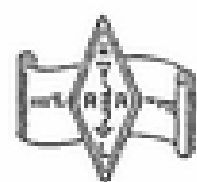
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WD5FKG

Manager



W5PAA

LID, LID, WHO'S GOT THE LID?

One of the newer boys came over the other night to brag about working Rhode Island and to talk about Mellish Reef.

"I think I heard Mellish," he told me. "But there sure was a lot of malicious interference."

"Oh, that wasn't malicious interference," I explained. "That was any number of old pros helping to clear the frequency."

"I am going to go try to work a Delaware," the lad said, and went home without another word.

I think he figured I was nuts. All I was trying to do was put the best face on it.

The Mellish Reef DXpedition came up out of the mud on 10 meters several afternoons in a row at about 2000 Z in these parts. The ops over there -- and they sounded like good ones to me -- were working split, listening over quite a huge chunk of real estate above their calling frequency to try to sort out the pile up.

Sometimes, though, the biggest pile up of all was on the Mellish calling frequency, and I think that's what bothered my younger colleague.

It was just about the worst mess I've heard, hour after hour, since Clipperton.

If you missed it, here's a prototype: (All signals except Mellish are 5 and 9. Mellish is 3-3 with QSB. All calls are on Mellish call frequency.)

MELLISH: QSL your 5-9. I am listening 28.6 and up. QRZ?

VOICE 1: Willie Baker Niuhn (inaudible)

VOICE 2: Kilo One Charlie Roger (inaudible)

VOICE 3: Mike London Romeo! Mighty Like a Rose! MLR! Over!

VOICE 4: He's working split, you idiots.

VOICE 2: What? What?

VOICE 4: I said he's working split. Why don't you get your head out and listen?

(Mellish can faintly be heard down underneath, working people.)

VOICE 3: Mighty Like a Rose! Mighty Like a Rose!

VOICE 5: Oh my God.

VOICE 6: Please QSY.

VOICE 7: You know what you can do with that request, good buddy--

VOICE 4: Why don't you go back to your chicken band rig, you lid?

VOICE 7: Ten four, good buddy.

(Mellish is saying something.)

VOICE 8: Whiskey Bravo Eight (inaudible)

(Someone starts tuning up, 40 over 9.)

VOICE 4: Don't tune up on this frequency, you moron.

VOICE 3: Mike London Romeo! Mighty Like a Rose! Mean, Lean, and Rude! Over!

VOICE 6: He's listening up. Please QSY.

VOICE 4: Why don't all you lids shut up.

VOICE 7: You're the lid.

VOICE 4: I'm not the lid. You're the lid.

VOICE 7: Lid! Lid!

VOICE 4: I'm not a lid and if you don't stop saying bad stuff, I'll tell my mommy.

VOICE 9: Is this frequency in use?

VOICE 7: You've got to be kidding.

VOICE 6: Yes, it is. Thank you for asking.

VOICE 10: QSY! QSY!

VOICE 9: CQ, CQ, CQ. Looking for the states of New York, Pennsylvania, Ohio, California, Utah, and Texas...CQ 10-10.

(Mellish is there someplace.)

VOICE 6: The frequency is in use, old man.



VOICE 9: Well, I'm sorry. I asked and didn't hear a soul, and I don't want to be rude, I obey all the regulations and believe that the heart and soul of amateur radio is courtesy, and I certainly would never QRM Mexico anyone because I am a gentleman. Incidentally, the rig here is a KWM 2 with an SB 220 and a six-element quad at 100 feet, and the weather today has been real nice, a little warm but okay, I like the warm weather, don't you? Say, you have a nice signal here in Tincan, and before I QSY, I wonder if you have time to tell me what you're using there and do you have a ten-10 number? Break, break.

(Someone is tuning up, obliterating everything.)

VOICE 4: Lids! Lids! You're all lids! Get off the frequency!

VOICE 10: When is he going to work the 5s?

VOICE 11: He isn't working call districts.

VOICE 10: Oh my lord, is he working split? I don't have an outboard VFO!

VOICE 12: Is this the LIARS net?

VOICE 5: Oh my God.

VOICE 4: God is not on this frequency. Mellish is on this frequency. Why don't all you lids just drop dead and then maybe you can work God direct?

VOICE 7: Big mouth! You really are a lid.

VOICE 10: When is he going to work the 5s?

VOICE 3: Mighty Like a Rose! Mighty --!

(Sunset comes and the band begins to fade. Mellish can still be heard, fainter and fainter, working the 5s.)

I'm sort of glad the youngster didn't stay to ask me why all these guys were "helping" on the Mellish calling frequency. I'm not sure I would have had a clear answer.

Strange thing, though, and one to ponder. Most of these voices were NOT young voices...newcomers. They were old voices, whiskey- and cigarette voices, especially the nastiest ones. I guess they bring decades of experience to the hobby, and really know what's best for the rest of us. I hope that in time my young friend will begin to appreciate these golden-age vigilantes for what they really are.

--Jack, WB5TZZ

Yakkey-Dee-Yak from Dave, W4YDY/K5NC

Had a nice note from Bill, K5KDR, and it was good to hear from him. As usual, I have enjoyed keeping up with the ACARC and their activities in the C&E. I really do miss the fellowship of the club since we moved back to North Carolina last year. Looks like Ham Holiday was another success this year. Was glad Joe, K5JB, had good luck at the prize drawing. We went to the Shelby, NC hamfest on Labor Day weekend. I didn't win anything as usual. There was a large flea market with over 6000 in attendance. After the Charlotte hamfest in the spring, I went to the hamfest in Raleigh about 3 weeks later. Had a great time there seeing my friends again. I sold an IC-230 and a couple of Ham-M rotators. And I bought an IC-245 with SSB, a Ham III rotator and another 10 feet of tower. There were bargains all over the place when they were packing up. I was offered a new IC-211 for \$499! But from above, you can see I gave out of money. I still wish I didn't turn that one down! I got the Rohn foldover tower up a couple of weeks later. The TA-33 is 60 feet up and I have 22 elements on 2 up to 72 feet. I can get into about 7 states on 2 meter repeaters. Being close to the mountains helps. I have counted 28 repeaters so far. Susan calls into the NCSSB net most nights at 7:30 ET on 3938 and sometime I get in there too.



I have been hoping for a school at the Academy but they are hard to come by here. Especially since I have been trained on all of the equipment that we have here. Maybe I can swing one before too long. I was glad to see the ACARC has the repeater on now. When I get out there again, I will be on it and looking forward to talking to some of you again.

73 Dave, W4YDY/K5NC

RANDOM WORDS FROM THE PRESIDENT

We had a pretty good attendance at our regular October meeting at the Aeronautical Center Amateur Radio Club. I want to take this opportunity to thank Rick Robles from Southwestern Bell Telephone Co. for bringing us up to date on the telephone company's latest computerized switching equipment. Thanks Rick for a fine program.

As I announced in our October meeting, our club has been selected by CORA to handle the "Ladies Program" at Ham Holiday '79. Although it is seldom recognized, this is probably one of the most important jobs at Ham Holiday. We are very much in need of some help to start organizing now, in order to make a much more successful job easier for next year. If you and/or your wife would be at all interested in helping with this project, please contact me at 677-8685 as soon as possible. (Come on now, go ahead and ask her, you may be surprised!)

In our October meeting also, it was decided that in December, our regular meeting would be replaced with a Christmas dinner at one of the local eating establishments. In order to make the arrangements for this dinner, our "Christmas Dinner Committee," is in need of some info. such as how many to prepare for. If you and/or your family would like to plan to attend this dinner, please fill in the information form below, and either mail it to ACARC, Postal Station 18, OKC, Okla. 73169, or get it to either Charlie Greene, WA5JGU, or Al Prince, by what ever means is available.

73, Bob Graham, WB5NSV

Members Name _____	Call _____
Number in Party to be expected _____	
Comments _____	

Minutes of the Aeronautical Center Amateur Radio Club for Oct. 1978

There were 35 members and guests present. It was a good nite for all. The meeting began at 8:03 with a round of self introductions. A vote was taken and passed to have a dinner for the December meeting. Al Prince and Charlie Green and Woody were selected to make the arrangements for the dinner. January is to be the election of club officers. Ellard Foster, Don Sullivan, and George Lagaly are the nominating committee. Station report by George Lagaly - the T.O. Keyer needs a new transformer - new crystals are in the club 2 meter gear for the repeater.

The program was given by Rick Robles from Bell Telephone. It was very interesting and he got quite a few questions from those present.

The meeting adjourned at 9:30 for refreshments.

Respectfully submitted, Bill Oliver K5KDR
sec. & treas.

FOR SALE:

FM-200, 07/67, 34/94, 52/52, ACFS, TT PAD, 22/82 Xtals and complete manual.
\$125.00 K5LIL 946-9200.



TEN IS ALIVE AND WELL !!!!!!!!

HAVE YOU TUNED UP ON TEN LATELY?? IF NOT, TRY IT - YOU ARE IN FOR A REAL TREAT !! THE BAND HAS HAD SOME REALLY SPECTACULAR OPENINGS ALREADY THIS FALL, AND CYCLE 21 IS ONLY AN INFANT !!

WITH THE MUF SLOWLY AVERAGING UPWARD DURING THE PAST COUPLE OF YEARS, A SLOW BUT GENUINE RESURGENCE OF INTEREST IN THE BAND HAS GOTTEN UNDERWAY. TRUE, THERE HAVE BEEN A NUMBER OF AMATEURS DEDICATED TO TEN METER OPERATIONS DURING THE "DEAD" YEARS, BUT NOW IT'S GETTING TRUE STATUS AS A GENERAL PURPOSE BAND AGAIN, AND SOME INTERESTING INOVATIONS ARE BEING MADE.

TUNING ACROSS THE BAND FROM 28MHz DURING EVEN THE SHORTEST OPENINGS WILL PRODUCE A BUSY CW SUBBAND WITH ACTIVITY RANGING FROM RARE DX TO GOOD OLD FASHIONED TRANS-CONTINENTAL RAG CHEWS. (I'VE EVEN HEARD TRAFFIC MOVING DURING THESE OPENINGS!) THE SAME THINGS ARE HAPPENING ON THE PHONE SUB BANDS...BUSY, BUSY !! ONE EVEN HEARS A CONSIDERABLE AM PHONE ACTIVITY (POSSIBLY DUE IN SOME MEASURE TO THE RECENTLY POPULARIZED CONVERSION OF CB EQUIPMENT). ABOVE 29.5MHz, THERE IS EVEN FM REPEATER ACTIVITY, AND SIMPLEX CALLING FREQUENCIES FOR THE FM'rs, AND OF COURSE OSCAR MODE A RESIDES HERE. SEVERAL BEACONS ARE ON TEN METERS IN VARIOUS PARTS OF THE WORLD LEADING TO SOME INTERESTING PROPOGATION STUDIES, AND, OF COURSE EVEN THE RUSSIAN PULSER CAN BE HEARD ZAPPING ALONG WITH HIS QRM.

WITHOUT DOUBT TEN METERS IS COMING BACK...AND WITH SOMETHING FOR EVERYONE, INCLUDING INTERNATIONAL NETS. IT'S 1.7MHz OF EXCITING OPERATING FOR ALL CLASSES OF LICENSE !

ONE OF THE MORE EXCITING ASPECTS OF THE "NEW TEN" IS THE ADVENT OF "TEN-TEN", AN ORGANIZATION NOW SEVERAL YEARS OLD, SPREADING RAPIDLY AROUND THE WORLD. TEN-TEN WAS FORMED TO FOSTER TEN METER ACTIVITY THROUGH INDIVIDUAL EFFORTS BY AMATEURS CONTACTING MEMBERS OF VARIOUS CHAPTERS. TEN-TEN ACTIVITY HAS SOME OF THE ELEMENTS OF A GIANT, NEVER ENDING CONTEST WITH NUMBERS AND REPORTS EXCHANGED, AWARDS FOR CONTACTS, AND THE EXCITEMENT OF CHASING ELUSIVE STATIONS.

THE MAIN ATTRACTION OF THE TEN-TEN ACTIVITY SEEMS TO BE THE ELEMENT OF PERSONAL COMPETITION CARRIED ON AT ONE'S OWN PACE. THE IDEA IS TO MAKE TEN METER CONTACTS WITH TEN AMATEURS HOLDING TEN-TEN NUMBERS, AND TO GET THEIR NUMBERS IN THE EXCHANGE OF SIGNAL REPORTS, CALL SIGNS, NAMES ETC... AFTER COLLECTING THE REQUISITE TEN NUMBERS, THESE CAN BE TURNED IN FOR A TEN-TEN NUMBER OF YOUR OWN WHICH, IN TURN IS GIVEN OUT TO OTHER STATIONS FOR CREDIT. IF YOU COLLECT ENOUGH NUMBERS FROM ONE SOURCE OR ANOTHER, THESE CAN BE USED TO EARN BASIC AWARDS, AND ENDORSEMENTS FROM THE VARIOUS CHAPTERS AROUND THE WORLD. THERE ARE VARYING DEGREES OF IMPORTANCE TO SOME OF THE CONTACTS. FOR INSTANCE, IF ONE CONTACTS A CHARTER MEMBER OF ONE OF THE ORGANIZATIONS CHAPTERS, THEN THE CONTACT IS WORTH MORE THAN OTHERS FROM THAT CHAPTER; ALSO IF A CONTACT IS MADE WITH A STATION POSSESSING A HIGH NUMBER OF AWARDS, IT CAN COUNT FOR MORE, AND SO FORTH, ON-AND-ON...

ALTOGETHER ITS A LOT OF FUN, AND PROMISES TO BE EVEN MORE SO AS TEN METERS IMPROVES DURING THE NEXT FEW YEARS.

IN ANOTHER AREA OF C&E, THERE IS AN ANNOUNCEMENT OF A MEETING TO FORM A LOCAL CHAPTER OF TEN-TEN. AREA AMATEURS HAVING INTERESTS IN THE BAND, AND THIS TYPE ACTIVITY SHOULD PLAN TO ATTEND. WHO KNOWS, MAYBE CHARTER MEMBER CONTACTS FROM THE OKLAHOMA CITY CHAPTER WILL BECOME RARE, SOUGHT AFTER TEN METER CONTACTS AND CAN OPERATE IN THEIR OWN PILE-UPS.....

73

ROBBY AAØØ



WHAT IS THE AMATEUR RADIO NEWS SERVICE ?

If you have noticed this "logo" on page 2 of the CORA Collector & Emitter for the last couple of years and have wondered just what it meant the following "pickup" from Tampa Bay QSP should help. Ye, managing editor and at least one of the club editors belong on an individual basis, since it is the editor, not the club which is a member. We would highly recommend that each contributing club editor become a member, if only to get the monthly bulletin and a well prepared "How To" manual. Ask your club to pay the \$4.00.(WA5ZNF)

WHAT IS THE AMATEUR RADIO NEWS SERVICE?

The Amateur Radio News Service is a world-wide organization founded in 1965 to provide a vehicle for exchanging ideas among Amateur Radio Operators who are concerned with club newsletter/or public relations.

The monthly ARNS BULLETIN contains helpful hints in each issue. Different aspects of printing the paper are covered, while articles, news items, and other material in a lighter vein give solid assistance to the editor and PR chairman.

ARNS conducts an annual publications contest. Editors in all categories of clubs are invited to submit their papers for judging.

YOU are cordially invited to join ARNS to enjoy its benefits and experience the satisfaction of helping others by sharing your own expertise.

Send \$4.00 to Doris Dennstaedt, WA3HEN, Secretary, ARNS,
303 N. Hammonds Ferry Rd, Linthicum Heights MD 21090.

~ANNOUNCEMENT~

THERE WILL BE AN ORGANIZATIONAL MEETING AT AMERICAN RED CROSS COUNTY HEADQUARTERS 323 NW 10th (just off Hudson) ON NOVEMBER 9, 1978 AT 8:00PM FOR THE PURPOSE OF FORMING A TEN-TEN CHAPTER IN THE CORA AREA. COME TO THE REAR DOOR FOR ADMISSION.

PLAN NOW TO ATTEND...EXCITING THINGS ARE HAPPENING ON TEN THESE DAYS...BE A PART OF THE "NEW LOOK" OF THE BAND.

FOR MORE INFORMATION CALL JOE SCHILLING WB5YKD - 681-5884, OR COY DAY N5OK.

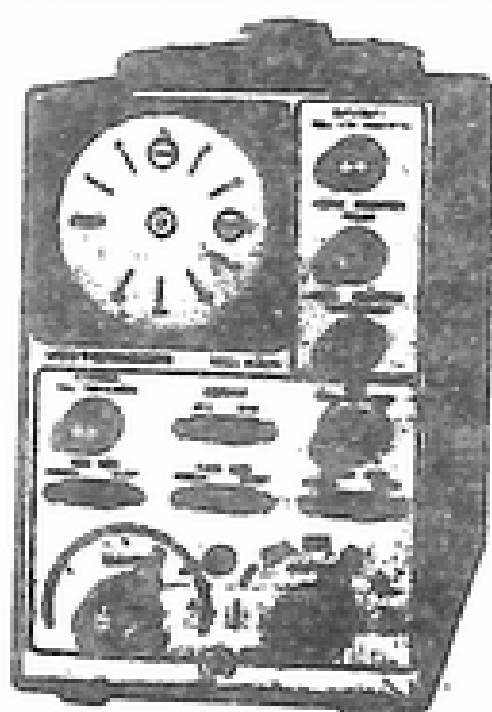
KINDNESS IS THE GOLDEN CHAIN BY WHICH SOCIETY IS BOUND TOGETHER.
- Goethe

THE BEST PORTION OF A GOOD MAN'S LIFE IS HIS LITTLE, NAMELESS, UNREMEMBERED ACTS OF KINDNESS AND OF LOVE. - Wordsworth

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- L. M. Child

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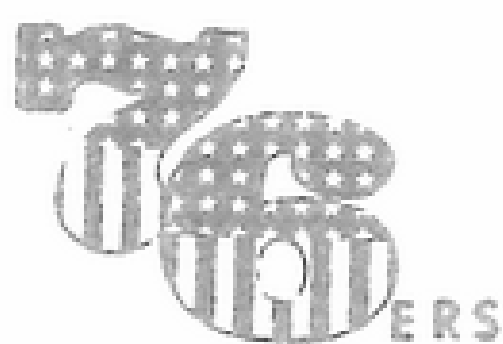


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THE BICENTENNIAL AMATEUR RADIO CLUB



FROM THE PRESIDENT...

I am very proud of the progress of the Seventy-Sixers over the past year. One year ago, we were going strong with 76 members. This year we're already over 100--one of the fastest growths of any club around.

Part of this is due to the club's excellent track record in training classes. These classes are one of the major commitments in our operation. They have been responsible for many new amateurs and upgrades, and have a good number of Extra Class operators to their credit.

Another possible reason is the club's sponsorship of the .16/.76 repeater. Two-meter FM is probably the best way to get to know local amateurs, and the best place to eyeball a new acquaintance is none other than the club's regular meeting. The repeater has helped the club communicate.

I think these are part of our success, but the main factor is something that greets you at the meeting room door. It's a warm, friendly feeling among the membership. Member's activities are diverse, and because of that DX is as important as how the repeater is doing and an upgrading amateur as important as an Extra. There are no cliques, no lop-sided priorities, and no closed minds.

Next month's meeting will be an important one for our club. We will vote on a proposal to change our meeting nights to the second Tuesday of the month. As you know, there has been conflict on the third Tuesday for quite some time. Changing the meeting night would eliminate this conflict and could allow more interaction among clubs in this area. On the other side of the argument, proof was presented at the October meeting that our scheduling of the third Tuesday at the club's inception did not conflict with any other club--meaning "we were here first". The decision is yours at the next meeting. I urge all to attend November 21st at 7 p.m.

Remember to mark your calendar for our Christmas Dinner Meeting on December 12th, 7 p.m. We'll know where it will be when the committee reports back at the November meeting. There's another reason for coming--finding out where all the fun will be!

-73-

Mark Northcutt, WD5DYI

Meeting was called to order at 7:00 p.m. by the new President Mark Northcutt. Treasurer report was read by Don AE5N. Don reported that the club now has 109 members. There were 43 members and guests present. Self introductions were made and new upgrades recognized.

Coy, N5OK, suggested an awards manager for the club and Al Peck was appointed. New business: Bill, N5WM, made a motion to move the club meetings to the 2nd Tuesday, seconded by Ken, K5UAB, discussion followed. Motion made by Bill, seconded by Paul, WA5HTL, to table until next month, motion carried. Motion by Bill, seconded by Ron, WD5FRQ, to publish the meeting change in the C & E it will take a 2/3 vote of members present to pass.

President Mark made appointments for CORA Representatives. Don Duck, AE5N, Charles Kennamer, WA4PLG, Joe Couch, WD5BMP. Alternates are Karen Recer, WD5HBX, Don Jones, K5UKP, Kay Northcutt, WD5DYJ. Motion by Coy, N5OK, seconded by David KA5AFA, to have christmas party on Dec. 12, motion carried. A committee to find a location for our christmas party will consist of Tom, N5AOZ, and Dennis, WD5CSM. Lots of discussion followed on other topics. Meeting was adjourned at 8:55 p.m.

Secretary
Joe, WD5BMP



ALTUS AREA
AMATEUR RADIO
ASSOCIATION

President - Bob Bratton, WD5BBW
Sec/Tres. - Janice Simms, WB5WMN

The ALTUS AREA AMATEUR RADIO ASSOCIATION met on Thursday, October 12, at the North Main Fire Station at 7:30 PM. President Bob Bratton, N5AIP, called the meeting to order. In the absence of the Treasurer, no treasurers report was given.

Dwight Dennis, WB5KRH, President of the Southwestern Oklahoma Repeater Association discussed the latest maintenance on WR5ANX repeater (146.190 - 146.190). It seems that a faulty coaxial cable to the receive module was the culprit creating the trouble. The UHF repeater on 444.0 - 449.0 was re-installed and is working more than effectively according to Dwight.

The most pressing item of business was the Hamfest which will be held on Saturday, October 14, at Quartz Mountain State Park south shore. A pavilion has been rented. The committee met earlier in the week to make final plans for the event. A special thanks goes to Chuck Smith, WB5MJS, and Steve Norris, W5KI, and the rest of the committee who spent much time and effort to make this event possible.

NEXT MEETING IS NOVEMBER 9, 1978 at the North Main Fire Station.

Dues for November: Jerry Rochelle, Steve Norris, Willar Holt, Ralph Shockley, Joe McDonald.

Dues for December: Loren Simms, Janice Simms, Mike Schenkler.
Dues PAST DUE: Robert Parks, Phillip Walker, Brent Haught, Danny Watson, Bud Smith, Deanna McEndree, Phil Simms, Kenneth Ingram, Bob Henry.

Janice Simms, WB5WMN

- - HAMFEST 78 - -

The 6th Annual HAMFEST was held on Saturday, October 14, on the shore of Quartz Mountain State Park. Although only 44 participants registered, more were in attendance according to a later head count. Swap and display areas were set up and maintained by members and dealers alike. However, the biggest attention getter were the 110 hamburgers prepared by short-order cook Chuck Smith, WB5MJS. Hamburgers and soft drinks were provided by the club with members and guests furnishing a covered dish to complete the meal.

Several dealers were in attendance displaying their treasures. Several hams from the Oklahoma City - Norman area were brave and made the journey. A special thanks to H. O. Townsend, WA5MLT, State Emergency Coordinator for Oklahoma for making the trip. Following the day of swapping, selling, eating and visiting some of the more curious ones traveled to Altus for a tour led by Loren Simms, WA5CBF, of the Emergency Operations Center located in the basement of the North Main Fire Station.

The day was a success and was enjoyed by all those who were able to attend. Next year we are looking forward to a bigger and better Hamfest 79.

* * * * *

ADD TO THE CALENDAR:

NOV 9 - TEN-TEN CHAPTER ORGANIZATION MTG. (ARC)
NOV 18 - PICNIC/CAMPOUT (LAKE THUNDERBIRD)

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SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			1	2	ACARC MEETS 3	4
5	6	MORI MEETS 7 @ MEETS	8	ALTUS MEETS 9	10	11
12	13	14	15	16	VHF MEETS 17	18
19	EDIT C&E 20	AUTOPATCH MEETS 76'ers 21 MEET	22	THANKSGIVING 23	24	25
26	MORI MAILS C&E 27	28	CORA MEETS 29	30		

See page 2 and/or individual club sections

for details



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