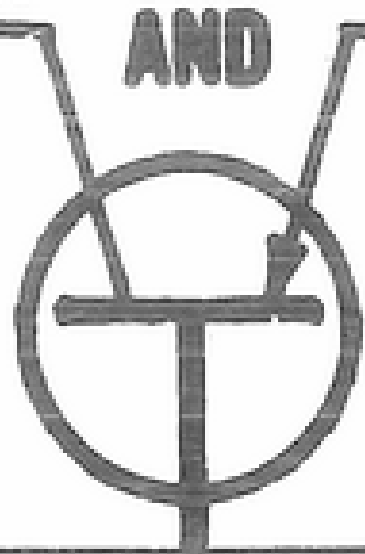


Central Oklahoma Radio Amateurs

COLLECTOR AND EMITTER



1976 FEBRUARY 1976

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	<>	<>	<>	<>	<>	<>

Vol. 2 No. 13



WITH THE PASSING OF THE FIRST YEAR OF PUBLICATION OF THE CORA COLLECTOR AND EMITTER, WE WANT TO TAKE THIS OPPORTUNITY TO THANK YOU, THE OKLAHOMA CITY AREA AMATEURS FOR MAKING THIS NEWSLETTER FUN TO PRODUCE.

FOR A LONG TIME, THERE HAS BEEN SORELY NEEDED, SOMETHING TO CREATE COHESIVENESS BETWEEN AMATEURS IN THE AREA. CORA HAS EVOLVED TO FULFILL THAT NEED. BY POOLING OUR RESOURCES, WE CAN DEVELOP STRENGTH NECESSARY TO DO A FIRST CLASS JOB OF JUSTIFYING OUR SPACE IN THE RADIO SPECTRUM. THE CORA C & E IS THE SOUNDING BOARD FOR YOUR IDEAS AND COMMUNICATION MEDIUM FOR YOUR UNIFICATION. IT IS UP TO YOU TO USE IT, ENJOY IT, KEEP IT LIVELY, AND LOOK FORWARD TO MANY MORE HAPPY BIRTHDAYS!

Central

Oklahoma

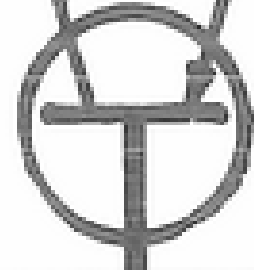
Radio

Amateurs

COLLECTOR

AND

EMITTER



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Managing Editor    Joe Harding, WA5ZNF    737-1044

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

President	Ken Kendrick	WB5ECJ	751-4917
Vice President	Gary McCormick	WA5ETV	946-2898
Secretary	Ellard Foster	W5KE	789-6702
Treasurer	Bob Williams	WB5LHR	789-0987
ACARC Editor	Don Templeman	WB5NIY	787-7174
MORI Editor	Jim Williams	K5VRL	942-0536
OCVHF Editor	Joe Buswell	WA5TRS	732-0676
OKCAP Editor	Don Moore	WA5FFK	787-5189

## PARTICIPATING CLUBS FOR CORA COLLECTOR AND EMITTER:

### AERONAUTICAL CENTER AMATEUR RADIO CLUB, INC.

Postal Station 18, Oklahoma City OK 73169

Meetings: 8:00 P.M. on first Friday of each month, Flight Standards Bldg, FAA Aeronautical Center. Club Station W5PAA

President	Al Prince	WB5KCU	789-1160
Vice President	Bill Hulse	W5UGZ	376-2125
Secretary/Treasurer	Bill Oliver	K5KDR	329-6333

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

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

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

President	Tom Stinson	W5OZE	942-3714
Vice President	Ken Ford	WB5KHU	528-8770
Secretary	Joe Buswell	WA5TRS	732-0676
Treasurer	Ellard Foster	W5KE	789-6702

### MID-OKLAHOMA REPEATER, INC.

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

President	H. O. Townsend	WA5MLT	329-4426
Vice President	Chester Hazelwood	W5GDL	427-1439
Secretary/Treasurer	John Huckaby	K5QDR	672-4706
Mail Dues to:	Sid Gerber, 829 E Bouse, MWC 73110		737-1050

### OKLAHOMA CITY AUTOPATCH ASSOCIATION, INC.

Meetings: 7:30 P.M. 3rd Tuesday, Bi-Monthly, Okla Military Academy 36th & Grand, WR5ACB 146 22/82, 147 81/21

President	Frank McCollom	WB5JBL	751-3577
Vice President	Larry Dillard	WB5CWB	685-4065
Secretary/Treasurer	Jim Denman	WB5EOL	681-6048
	7705 S Charlotte Dr, Okla City OK 73159		



## MID-OKLAHOMA REPEATER INC.

From the SECRETARY.....

Greetings from Mid-Oklahoma Repeater Inc. on our BiCentennial year and also happy Valentines day to all of you.

Our February meeting will be held at Oklahoma City EOC at 8:00 pm, located at 4600 North Eastern. Date is February 3, 1976. The program will be entitled "An Illustrated Guide to the Phase-Lock-Loop." The speaker will be Dr. Bill Cronenwett, W5TPJ, professor of Electrical Engineering at the University of Oklahoma. Bill will define or explain what a phase-lock-loop is and show us some applications.

On January 6, 1976 our regular monthly meeting took place at the Oklahoma Military Academy instead of the EOC. The city was holding Red Cross classes in our regular big room. They offered another room, but due to the large crowd expected, we went to the Academy. We had 47-members and guest for our first meeting of the new year and all enjoyed the evening.

Ron, WA5EAI, showed us slides of our repeater sites. Other business was taken care of such as Annual Tresurers Report and several other bits of things to be done.

Our December meeting was not held at our regular meeting place. Rather at the Bonanza Steak house in Del City on December 13 and boy did everyone get full. Everyone was given a number as they came in. After the meal, door prizes were passed out by drawing a number. OMs' and XYLs' and YLs' had seperate gifts.

We are including our 1975 Annual Treasurers Report in this issue so that all our membership can see what our expenses were during the past year. Boy, did Don, WA5TAW, have his hands full according to the report. He says there is not too much to being the secretary/treasurer, but don't let him fool you. We wish to thank him for all he has done.

John Huckaby, K5QDR  
Secretary/Treasurer

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FOR SALE: ICOM IC-2F Transceiver - 10-Watt - 6-Channel (07/67, 22/82, 34/94, 52/52, 94/94) - DISC Meter Output - TT Pad Input - \$150 -- 12-volt/2.6-Amp/hr Battery Pack w/built-in charger - \$40 TT Pad w/case, plug, and volume control to fit IC-2F - \$15. Complete package - \$185. Contact Don Graham, WA5TAW, 733-3044

Well, so much for a column name. You can not believe how long I looked for a suitable name. It's not the best I can do; however, the dead line for the Collector and Emitter was drawing very close.

Nevertheless, I want to express my appreciation for the opportunity to serve our club and the Amateur Radio Service. I sincerely feel honored, especially knowing some of the past officers and the quality of club members we have. Thanks very much and I will try to do my best.

Secondly, congratulations to Chet Hazelwood, W5GDL, on being elected Vice-President and to John Huckaby, K5QDR, on being elected Secretary/Treasurer. It is going to be very enjoyable working with knowledgeable and pleasant men such as these. And all who will be serving on the Executive Committee.

In addition to these men, I have appointed Ken Goddard, WA5DTL, to the Executive Committee to lead the club in our publicity/public relations work. Also, I have appointed Tim Mauldin, WA5LTM, to the Executive Committee to be our program director. Tim will be planning our club programs each month. And of course Ken will be seeking ways to keep our club and Amateur Radio before the public, illustrating the positive things we do. I can not emphasize enough, as club members and as Amateurs, the help and support these men need. If you have ideas for public relations work or club program material, please contact them. Our club as large as it is, and with the variety and quality of talent we have, should be a real leader and asset to the Amateur Radio Service. We are now. Take an active part in your club.

The Trustees round our Executive Committee. They are the ones who make frequent trips to the repeater sites and keep us talking ...talking...talking.

A big thanks goes out to Don, WA5TAW; Ron, WA5EAI; Bill, WA5IQH and Larry, WB5POW, for removing one antenna and lots of heliax from the top of the First National Bank building. I understand that to access the location it was a little tricky to say the least. When ask to make the trip, I calmly declined. I get dizzy standing on the bottom rung of my 40-foot tower.

I would also like to thank Carl, WA4AQW/5, for the very, very professional way he announced our January club meeting on the air. It sounded great Carl.

continued-

The cover of this months Collector and Emitter is a picture of our 146.34/94-MHz repeater equipment. Thanks to Ron, WA5EAI, and Carl, WA4AQW/5, for going out on a windy thursday night at 10:30 to take it. The only problem encountered after finding the film was getting by the building maintenance crew who were waxing the elevator floor. SORRY, NO PIX AT LAST MINUTE. MY FAULT WA5ZNF

Through this year as we attend club meetings and get fatter from the refreshments, we can thank Jerry, W5MCJ. Jerry has agreed to make our coffee and bring on the donuts. Thanks Jerry.

We were saddened last month to hear one of our members, Frank Watson, W5TNW, passed away. Frank was a fine man and although he did not do alot of operating, what he did was on 2-meters. He was a member of our club. It is hoped that we will not loose any more members to the silent key section of the Amateur Radio Service.

I hope to see you at the February meeting. Try to make it, we have a great program planned.

Before I close, I would like to say thank you to the out-going club officers who have the transision of duties so easy. Bill Noland, WA5FWD, President; Jim Kearns, WA5LFN, Vice-President; and Don Graham, WA5TAW, Secretary/Treasurer. Thanks for leading our club last year in such a positive way.

---

WANTED

Vertical ant 10-80 M Hy-Gain or equal      Dave Langley, W4YDY/5      722-0462

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LETTER FROM AN ADMIRER

Dear CORA:

I better change that Dear CORA to Dear Friends and neighbors before the XYL goes into shock. Hi.

I've enjoyed receiving the Collector & Emitter and want to subscribe for another year as a non-affiliated club member. I am enclosing a check to pay for it.

I have a question for WA5UNL or others concerning his article in the June issue on page 4 "A Super Low-Noise 2M Preamp". Where can I order a Siliconix U310? 'Taint any in Prescott and I can't afford calling all around Phoenix. Hi.

Really enjoy reading about what's going on and miss all of the activity. There is a new reoeater out here on Route 66 (I-40) just west of Flagstaff at Williams AZ on Bill Williams Mountain that gives good coverage south to Phoenix and north to the Grand Canyon. The machine is on 146.28/.88 and is open.

73      Bob Leinau WA5WYO/7      303 Park Ave, Prescott AZ 86301

# MID-OKLAHOMA REPEATER, INC.

## ANNUAL FINANCIAL REPORT 1975

BALANCE BROUGHT FORWARD (1 Jan 1975)	\$ 927.67
TOTAL DEPOSITS	<u>2373.61</u>
	\$3301.28
TOTAL EXPENSES	<u>-2484.58</u>
BALANCE CARRIED FORWARD (31 Dec 1975)	\$ 816.70
NET DECREASE IN CASH ASSETS <sup>1</sup>	\$ 110.97

### DISBURSEMENT OF FUNDS

<u>PURPOSE</u>	<u>AMOUNT</u>	<u>PERCENT</u>
Administrative Expenses	\$175.39	7.05
Miscellaneous (Door prizes, donuts, coffee, etc)	231.77	9.33
CORA Collector-Emitter	351.90	14.16
Telephone Control - WR5AJP (Includes deposit <sup>2</sup> )	182.78	7.36
Telephone Control - WR5ADF	110.96	4.47
Transfer Funds (Loans for Ham Hol. & Field Day)	203.00	8.17
Insurance	271.00	10.91
Equipment and Maintenance - WR5AJP	669.37	26.94
Equipment and Maintenance - WR5ADF	18.18	0.73
Equipment and Maintenance - 440-MHz Rptr	<u>270.23</u>	<u>10.88</u>
	\$2484.58	100.00

### REMARKS:

<sup>1</sup>This represents only cash transfer. Total worth of the corporation is substantially increased due to procurement of equipment. During this year, another VHF repeater system and one UHF system was added.

<sup>2</sup>This deposit was \$75.00 for a commercial line. Since the WR5ADF line is a residential line, the WR5AJP control line will consistently be higher in cost.

RESPECTFULLY SUBMITTED

Signed RONALD E. GRAHAM, WA5TAW  
Secretary/Treasurer

---

FOR SALE: ICOM IC-2F TRANSCEIVER - 10 WATT - 6 CHANNEL (07/67, 22/82, 34/94, 52/52, 94/94) - DISC METER OUTPUT - TT PAD INPUT - \$150 - - 12 VOLT/2.6 AH BATTERY PACK W/BUILT-IN CHARGER - \$40 TT PAD W/CASE, PLUG, AND VOLUME CONTROL TO FIT IC-2F - \$15. COMPLETE PACKAGE - \$185. DON GRAHAM, WA5TAW, 733-3044

## REPEATERS

While reviewing the 1976 version of the U. S. Callbook Magazine, I found many types of new entries. One entry, that caught my eye, was the repeater directory. To my surprise, our very own WR5AJP repeater is the last listing of the fifth region.

This caused a few cells between the ears to start moving. Yes, on occasion they do become activated. Anyway, some questions did come to mind; you know, the Who, What, When, and Where of repeater history.

Nevertheless, a little research has produced several very interesting facts. According to the history books, repeaters were often referred to as "relay" stations. As we understand today, these repeaters were originally used to help stretch the range of telegraph signals. By triggering a relay, the original signal could start a fresh signal going in a new circuit.

The repeating of Amateur Radio transmissions dates back to the early 1930's. That's a pretty good ways back to us young amateurs. However, of the repeaters of that time, W1AWW is credited with some place in Amateur Radio history. W1AWW, was not your standard 2-meter repeater as we know them today. It was an am-repeater operating in the 5-meter band or about 61-MHz.

The station was later licensed as W1HMO and was mounted on a 90-foot wooden lookout tower. The tower was located near Springfield, Massachusetts, overlooking the eastern slope of the Connecticut Valley. The relaying or repeating of Amateur Radio transmissions ranged upward to about 100-miles. It seems as though, unlike our modern, all solid-state, automatic ID, compact, and lightweight repeaters stations, W1AWW and it's counterparts required a live switch flipping operator. The operator was needed to make the necessary patching of receiver to transmitter combinations. The receivers were of the "rush-box" type and the transmitter was capable of about 100-watts. What an alligator, wonder what the antenna gain was?

Retransmissions prior to 1935 were taking place between Boston and New York on a somewhat regular basis.

Through both world wars, all Amateur Radio activity slowed, including that of repeaters. However, after World War II in the late 1940's and early 1950's, Amateur Radio activity picked up and so did the repeater enthusiasts. Some notable stations were K6's GWE, MYK, and JCC.

In 1962, the July edition of QST carried an article by K6QNY. The article was entitled, "VHF Repeater, Problems and Possibilities." Does this question sound familiar?

Several years later hams here in the Oklahoma City area began to formulate plans for a repeater. These plans came to life in early 1969, at which time the first 2-meter repeater was placed on the air at 146.34/94-MHz. The initial location for the repeater was on a microwave tower at SE 89th street and Sunnylane.

continued-

The repeater, WA5YTI, quickly drew acclaim from far and wide, at least each time it ID'ed. Or should I say each time Miss WA5YTI ID'ed and gave the time. It seems as though young and old alike would blush at each 10-minute interval.

In 1974, WA5YTI was moved to the First National Bank downtown Oklahoma City for a more central location and better coverage. Once the repeater was relocated a new call was issued, WR5ADE.

Within a few months, WR5ADE developed problems in the equipment and it was found that coverage to the east was not up to par.

Therefore in 1975, after having been off the air for several months, the repeater was moved. The repeater now rests high atop the Liberty National Bank still operating on 146.34/94-MHz and displays a very fine coverage. One of which we can be very proud.

In closing, as we recall some past and present repeater history, we should not forget those who have spent unselfish time making WR5AJP what it is today.

H. O. Townsend WA5MTL

SILENT KEY

It is with deep regret that we report the passing of James Frank Watson, W5TNW our friend and brother amateur. Born Mar 14, 1906, passed on Jan 5, 1976. Frank was an amateur for a great number of years. He retired from FAA in 1966 due to poor health. He also worked for OU, Postal Dept., telegrapher for Santa Fe RR and served during WW II in Naval electronics. He was a member of MORI and active on 34/94. The cheerful voice of Tired, Nervous & Weary will be missed by us all.

\*\*\*\*\*  
\* GOING OUT OF BUSINESS SALE: UNCLE SAM IS SENDING ME OVERSEAS \*  
\* WHERE AMERICAN AMATEURS CAN'T GET ON THE AIR. ITEMS BELOW ARE \*  
\* OFFERED FOR SALE RATHER THAN PUT THEM IN EXTENDED STORAGE. \*  
\* All items are now in use, are in like new condition, and can \*  
\* be seen by appointment. \*  
\* \*\*FULL YAESU "F" LINE HF STATION (80-10 meters), including \*  
\* Yaesu FTDX-400 XCVR (500 W) w/noise limiter, CW XTAL Filter, \*  
\* self powered, etc.; Yaesu FL-2500 Linear Amplifier (self powered \*  
\* with full legal limit); Yaesu FV-400S External VFO; Matching \*  
\* Speaker. Complete Package - \$737.00 \*  
\* \*\*ICOM IC-21 2-mtr XCVR with ICOM External VFO, Mobile Bracket & \*  
\* many XTALS (local repeaters and AF MARS) - \$315.00 \*  
\* \*\*SBE-144 2-mtr XCVR with Mobile Bracket & XTALS for local \*  
\* repeaters. \$160.00 \*  
\* CARL F. FREEMAN, WA4AQW Phone 672-5476 \*  
\*\*\*\*\*





Club  
NEWS

WSLOW  
The Elmer Coddler Memorial  
Station

MINUTES OF JANUARY MEETING

MEETING WAS CALLED TO ORDER 8:11 PM, JAN 16, 1975 BY CARL DRUMELLER, W5JJ, PRESIDENT, WITH 19 MEMBERS AND GUESTS PRESENT. ELECTION OF OFFICERS AND MEMBERS OF THE BOARD OF DIRECTORS WAS HELD. ALL WERE ELECTED BY ACCLAMATION AS FOLLOWS:

TOM STINSON, W5OZE, PRESIDENT  
KEN FORD, WB5KHU, VICE PRESIDENT  
ELLARD FOSTER, W5KE, TREASURER  
JOE BUSWELL, WA5TRS, SECRETARY  
CARL DRUMELLER, W5JJ, DIRECTOR  
JIM WILLIAMS, K5VRL, DIRECTOR

PRESIDENT TOM, TOOK OVER THE GAVEL AND OUTGOING OFFICERS WERE GIVEN THANKS FOR JOB WELL DONE LAST YEAR.

ELLARD, W5KE, ANNOUNCED THAT AT THE FEBRUARY MEETING, HE WILL BRING A BUSHEL OF SURPLUS CIRCUIT BOARDS TO GIVE AWAY.

JOE, WA5ZNF, MANAGING EDITOR OF CORA COLLECTOR AND EMITTER, REPORTED ON PROCEDURES BEING INITIATED TO PUT THE NEWSPAPER ON A SELF SUPPORTING BASIS. HE IS SEEKING THE HELP OF AN ADVERTISING MANAGER.

THERE WAS DISCUSSION OF SIMULATED EMERGENCY TEST SCHEDULED FOR THE WEEKEND OF JAN 24 AND 25. IT WAS UNKNOWN TO THE GROUP IF THERE WOULD BE A SET IN THE AREA. THIS WAS ATTRIBUTED TO THE LACK OF OKLA COUNTY EMERGENCY COORDINATOR

KEN, WB5ECJ, ANNOUNCED THAT CORA MEETING IS TO BE JAN 30 AT 7:30 AT RED CROSS HEADQUARTERS AND ALL WORTHWHILE AMATEURS SHOULD GET OFF THEIR DUFFS AND COME TO THE MEETING. J. W. WORD, WA5KFT, IS TO CONTINUE AS THE CLUB REPRESENTATIVE TO CORA.

RUSS BOBBITT, WA5NRJ, IS THE MOST RECENT ADDITION TO THE LIST OF SILENT KEYS WHO WERE VHF CLUB MEMBERS. STEVE, W5VCJ, HAS KEPT A LIST OF VHF CLUB SILENT KEYS. IT NOW TOTALS 28 MEMBERS.

THERE WAS DISCUSSION ON WAYS TO DISPOSE OF SURPLUS CLUB RADIO EQUIPMENT AND PARTS. IT WAS CONCLUDED THAT TAKING IT TO A FLEA MARKET WOULD BE THE BEST WAY. THE PEOPLE WHO ORGANIZED THE FLEA MARKET AT THE OKLA MILITARY ACADEMY LAST SPRING WILL BE CONTACTED TO SEE IF THERE IS ANY INTEREST IN HAVING ANOTHER. IN THE INTERIM, THE SURPLUS IS FOR SALE. THE MORE SIGNIFICANT ITEMS ARE:

HAMMARLUND SP-600 RECEIVER IN OPERATING ORDER  
SOLID STATE IAMBIC KEYS, HOME BREW-AS IS  
ANTENNA TUNER AND SWR BRIDGE, HOME BREW  
EICO 753 TRANSCEIVER-A CHALLENGE FOR THE DEDICATED EXPERIMENTER  
SHURE DESK MIKE  
TELETYPE CONVERTER WITH CRT TUNING INDICATOR - AS IS

-CONT NEXT PAGE-



Club  
NEWS

W5LQW  
The Elmer Gossard Memorial  
Station

MINUTES - CONT

SHORT EQUIPMENT RACK  
VARIOUS ASSORTMENTS OF PARTS, TOO NUMEROUS TO LIST.

THE CLUB STATION TRUSTEE, KEN, WB5KHU, SHOULD BE CONTACTED FOR NEGOTIATIONS.

THERE BEING NO FURTHER BUSINESS TO CONDUCT, THE MEETING WAS AJOURNED FOR COFFEE AND DONUTS. JOE BUSWELL, WA5TRS, SECY.

THE PRESIDENT SEZ - AND ALL LIKE THAT

IF YOU GOT SOMETHING CONSTRUCTIVE TO SAY, STAND UP AND SAY IT. IF YOU JUST WANT TO BELLYACHE, SIT DOWN AND SHUT UP. TOM, W5OZE

CONTRIBUTORS TO C & E

MY APOLOGY TO FRED, K5HFN FOR NOT GIVING HIM CREDIT FOR THE FREQUENCY CHART HE SUBMITTED FOR THE DECEMBER ISSUE. HIS DONATION KEEPS HIM OFF THE HOOK AS AN INVOLUNTARY C & E CONTRIBUTOR FOR A WHILE.

I SHARE PART OF THE BLAME BECAUSE I DIDN'T MAKE PERSONAL CONTACT WITH THE FOLLOWING PEOPLE WHO WERE CHOSEN TO CONTRIBUTE TO THE C & E, BUT, THREE OUT OF THREE DROPPED THE BALL!!? SO, I'LL GIVE THEM ANOTHER CHANCE. MELVIN, WA5OPP, CLARKE, K3WGF/5, AND CECIL, W5PML, ARE GOING TO BE GUEST AUTHORS NEXT MONTH OR THEY WILL REALLY GET THE BAD MOUTH FROM ME!

THESE THREE FELLOWS AND OTHERS WHO HAVE ANYTHING FOR THE C & E SHOULD HAVE IT IN THE MAIL TO ME BY FEB 15. MAIL IT TO BOX 10674 MIDWEST CITY OK 73110. JOE, WA5TRS, EDITOR

QCWA PRESIDENT DOWN

R. L. MAIER, BETTER KNOWN AS RED, W5RDE, PRESIDENT OF THE QUARTER CENTURY WIRELESS ASSOCIATION, IS RECOVERING FROM A HEART ATTACK SUFFERED ABOUT 11 OR 12 JANUARY. AT THIS TIME HE IS IN INTENSIVE CARE AT MERCY HOSPITAL IN OKLAHOMA CITY WHILE THE TECHNICIANS THERE ARE KEEPING AN EYE ON THE OLE OSCILLATOR. HERE'S TO A QUICK RECOVERY RED!

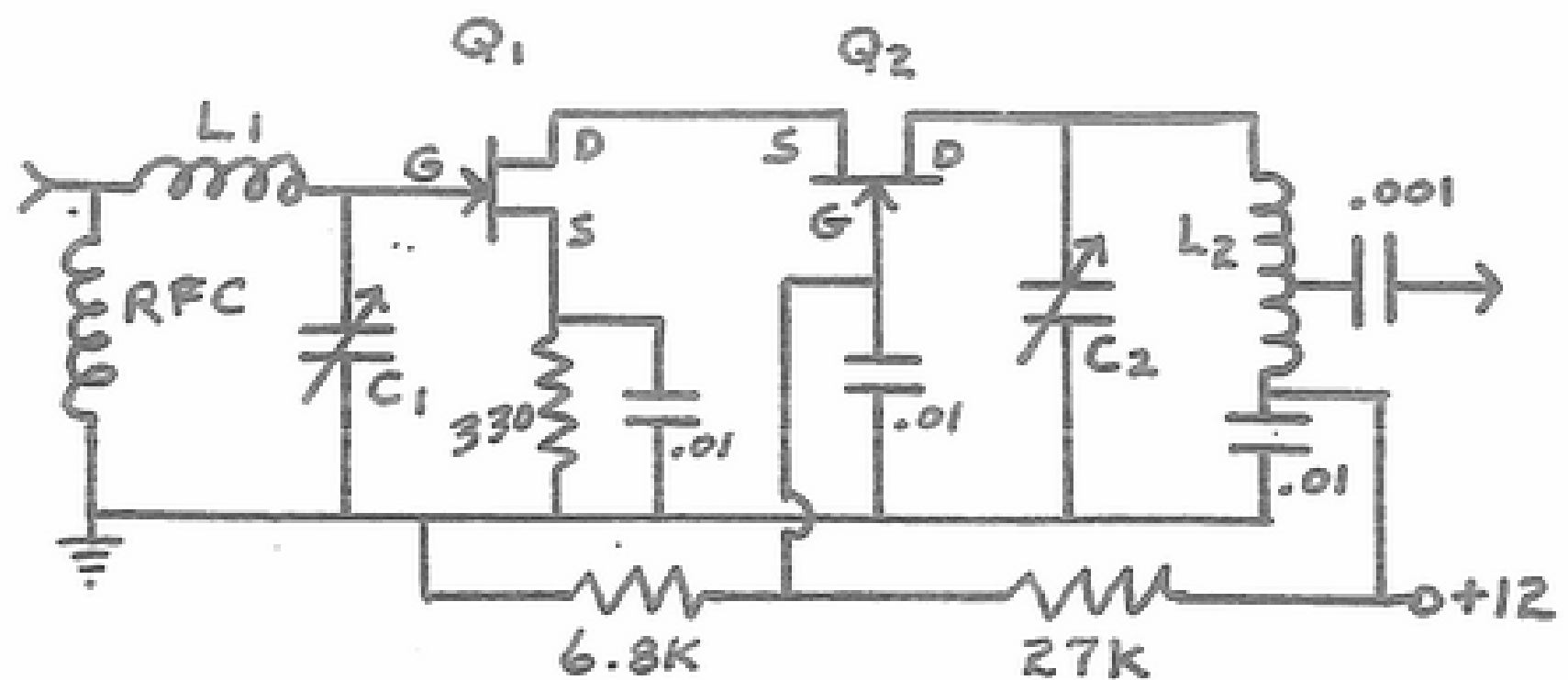
TEN METER PREAMP FOR OSCAR

SHOWN IS A 10M PREAMP WHICH I USE TO RECEIVE OSCAR 6 AND 7 SIGNALS ON MY SX-111. THE LITERATURE HAS ALREADY BEEN BOMBARDED WITH PREAMPS USING 40673 DUAL GATE MOSFETS BUT I MIGHT AS WELL DROP ONE MORE SHELL. THE IDEA IS A CONGLOMERATE FROM THE REFERENCES GIVEN.



## Club NEWS

VSLOW  
The Elmer Goddard Memorial  
Section



- RFC 27 uHy from Godbout Electronics, Oakland, CA  
 L1, L2 20 turns #24 wire on T-50-10 cores from Circuit Specialists, Scottsdale, AZ. Tap L2 7 turns from rf ground  
 C1, C2 3.5-18 pf air variable from S.D. Sales, Dallas, TX  
 Q1, Q2 2N5486 JFET from Adva Electronics, Woodside, CA

I HAVE THE PREAMP ON A 1-1/2" X 3" SINGLE SIDED P. C. BOARD. ADJUSTING C1 MATCHES THE INPUT IMPEDANCE OF Q1; IT IS NOT INTENDED TO RESONATE WITH L1. ADJUSTMENT OF C2 HAS A DRAMATIC EFFECT ON GAIN. THE ADJUSTMENT OF BOTH CAPACITORS BECOMES A TRADEOFF BETWEEN LOW NOISE AND HIGH GAIN.

I HAVE ALSO TINKERED WITH THE CIRCUIT AS A 2M PREAMP FOR MODE B 0-7 SIGNALS. C1 AND C2 ARE THE SAME AS THE 10M VERSION, RFC IS 1.5 UHY, AND L1 AND L2 ARE #18 WIRE, 1/2" LONG, 1/4" INSIDE DIAMETER, 5 TURNS. TAP L2 THREE TURNS FROM RF GROUND END. I HAVE NOT PUT IT ON A PC BOARD THOUGH.

CLIFF APPEL, WB6AWM/KH6

### REFERENCES:

SILICONIX APPL. NOTES, NOV 1973, LOW COST EPOXY DUAL FETS IN A LOW NOISE PREAMPLIFIER.  
HAM RADIO MAGAZINE, OCT 1975, PG. 48, J. REISERT  
ARRL HANDBOOK 1973, PAGE 265, "80-10 FET PRESELECTOR"

### MOST RECENT EXPERIMENTS DEPT

THOSE WHO WERE AT THE JANUARY CLUB MEETING ARE AWARE OF MY BURGLAR ALARM PROJECT BECAUSE MY STUPID PAGER RECEIVER KEPT GOING OFF ALL DURING THE MEETING. AFTER THE MEETING, I TORE INTO IT WITH THE MEAGER TOOLS AND TEST EQUIPMENT AVAILABLE IN THE CLUB STATION, NAMELY A SORRY VOLT METER THAT SHOULD BE THROWN OUT. WE WERE THEORIZING THAT SOMETHING FROM THE FIRE STATION WAS SHAKING UP THE RECEIVER. NOTHING THAT EXOTIC, I'M SORRY TO REPORT, THE BATTERY WAS RUNNING DOWN! A MORE COMPLETE REPORT WILL BE FORTHCOMING WHEN I GET A TRANSMITTER GOING. HOW COME MY TRANSMITTER PROJECTS ARE SO DAMN HARD TO GET GOING? MAYBE I DONT KNOW WHAT I'M DOING ANYWAY!!

URGED ON BY AN ARTICLE IN JANUARY 73 BY PETER STARK, K20AW, I TRIED ZAPPING SOME SHORTED SEALED NI-CAD BATTERY CELLS WITH HIGH CURRENT, BURNING OUT THE SHORT CIRCUIT. IT WORKED. HOWEVER, WHEN DISCHARGED, SOME OF THE CELLS RE-SHORTED WHEN THEY STARTED TO TAKE ON REVERSE POLARITY. I HAD TO USE A HUNDRED OR SO AMPS TO DO THE JOB, AND I HAD TO BE VERY CAREFUL TO KEEP THE PULSES OF SHORT DURATION. NOW IF I KNEW WHAT TO DO WITH CELLS THAT OOZE THEIR BLOOD ALL OVER THE EQUIPMENT AND/OR DEVELOP A HIGH INTERNAL IMPEDANCE.

JOE, WA5TRS



DEPARTMENT OF INSTITUTIONS, SOCIAL AND  
REHABILITATIVE SERVICES

(Department of Public Welfare)  
STATE OF OKLAHOMA  
Oklahoma County  
P. O. Box 26768  
Oklahoma City, Oklahoma 73126  
December 31, 1975

Oklahoma Central VHF Radio Club  
5824 NW 58th Street  
Oklahoma City, Oklahoma 73122

Attention: Mr. Carl Drumeller, President

Dear Friends and "Hams":

The desire to express love, concern and sharing with others is the true meaning of the Christmas Spirit. Your kind generosity to the foster children of Oklahoma County this Christmas shows the greatness of your spirit.

Many children's eyes lit up with joy at the sight of the Christmas gifts that you supplied for them. Your giving shows to them that they are loved and important to you. We deeply appreciate your generous gifts.

Your decision to change your traditional gift exchange to giving to foster children shows your true conviction that "It is more blessed to give than receive."

Sincerely,

*Thelma B. May/gw*

Thelma B. May  
Supervisor, Foster Care



W5PAA

## THE PRESIDENT'S CORNER

We are at the beginning of a new year and I find myself in a new position in our Radio Club, with one of my first duties to prepare something on paper for the next issue of C&E. So hang on for the next few months and we will try to come up with something of interest, and with your help and guidance maybe it will improve.

First, I would like to welcome aboard our new Vice President, Bill Hulse, W5UGZ, and to express my appreciation to our Secretary-Treasurer, Bill, K5KDR, and Editor, Don, WB5NIY, for agreeing to continue their fine work for the coming year.

I was first licensed as WN5KCU in 1973 following classes at the Aeronautical Center, and enjoyed working CW on 40 and 15 meters with low power and an inverted "V" antenna. The first completed contact was for a total of thirteen city blocks. Any later contacts would surely increase in range and sure enough they did and I enjoyed many fine contacts on the CW bands. Upgrading to WB5KCU with a TR-4 and an all band trapped vertical, I was able to find many new friends on side-band.

While trying to decide on which antenna to use, I tried the trapped diople, quad and finally acquired a tri-bander beam which required some repair before installation. While I was trying to decide on an antenna and its problems, I required the help of some of our Club members several times for the ups and downs of the tower. They will be glad to know that the tower is down again for some modification work. However, will be looking forward to completing this project so I can start a two meter antenna installation for local repeater work.

At this time, we do not have any scheduled activities to look forward to for the month of February other than the regular Club meetings. In the meantime, with this and the cold weather, maybe it would be an opportune time to think ahead about equipment and antennas to be used for Field Day and emergency or any of the other projects that could be taken care of before better Spring weather arrives.

I would also at this time like to discuss our Club activities. I would like to implement some type of Club program along with the regular meetings, and see more of the Club members attend the meetings. Invite visitors and perhaps we could even increase our membership. Do we need code or theory classes at this time? If anyone has any suggestions or ideas along these lines, I would like to discuss them at any time.

My wife, Daisy, and I have three children, all married, and three grandchildren; a granddaughter, twin grandsons, and are expecting a fourth grandchild any day.

Our porta-shack is not too portable. Since it is a cabin on Lake Eufaula, we do operate mobile on the way to the cabin, then operate portable by taking the rig inside and string up the inverted "V" in the walnut tree.

I have enjoyed the past year as Vice President of the Club and working with the CORA directors during the Oklahoma Ham Holiday. As President of the ACRC, I will be looking forward to many pleasant meetings and activities for the coming year.

So let me wish each of you the best for this great Bicentennial Year - 1976.

A1 WB5KCU

73



MINUTES OF THE AERONAUTICAL CENTER AMATEUR RADIO CLUB  
January 9, 1976

The meeting was called to order at 2005 by President Ashby. A round of self introductions was asked for with some comments of Christmas gifts received. Howard, W5WSW, found the problem in his counter. Bill, W5UGZ, got a microwave oven for Christmas and he also got his BS degree in Business. Bill, WA5RAG, found a faulty bandswitch in his Heath gear. Ed, WA5PWX, is a student at the Academy from Louisiana. He got a teletype keyboard for Christmas. Gil, W5RB, got a call book. Charlie, WA5JGU, attended his son's wedding in New Mexico. He also got a new router. Al, WB5KCU, got 5 gallons of paint. Dave, W4YDY/5, is looking for a 10 through 80 vertical antenna. He spent Christmas in North Carolina. Susan, WN4AKB, got a watch for Christmas. She has been listening on 40 meters. Dean, W0ICU, is a student at OU from Kansas City. He bought a Ringo antenna to work. Don, WB5NIY, on 2 meters. After one QSO on 2 meters, Don had his Heathkit HW2026 recalled. Jeff, WB5GWB, had his IC230 stolen. He is working on another repeater now. Lloyd, WB5HUP, still has his repeater in operation. He got an electronic watch for Christmas and has already run the battery down. Bill, K5KDR, got a 6 digit clock kit for Christmas. Jay, WB5QXU, got his FCC ticket for Christmas. Don, WB5RAX, got his ticket the same day as Jay.

Al, W5THL, got a microwave oven also. Ellard, W5KE, got a jumpsuit to wear while attending Hamfests. He got a scope from Albuquerque. Steve, WB5OUF, is a new member attending for the first time.

H.O., WA5MLT, got headphones, antenna wire, and some coax for Christmas. Lloyd, WA5PPA, tunes up each week on C. W. Bob, W5HXL, got a new ARRL Handbook.

It was announced that the Lawton-Ft. Sill Hamfest has been deferred until April.

The program consisted of election of officers for the new year. Those elected were:

President	Al Prince	WB5KCU
Vice President	Bill Hulse	W5UGZ
Secretary	Bill Oliver	K5KDR

Filling the office of Assistant to the President has been deferred for one month.

The club decided to buy a new 2 meter antenna and some more 2 meter crystals.

The meeting was adjourned for refreshments at 2050.

Bill Oliver  
Secretary/Treasurer



## TECHNICAL REVIEWS

W 5 J J



ELECTRONIC TECHNICIAN/DEALER, Nov, courtest of W5KE, tells how to align FM receivers and prescribes the equipment needed for servicing SSB gear. Both of these are well worth an amateur's attention!

SHORT WAVE MAGAZINE, Nov, presents two ideas on stabilizing the long-term drift of certain transcrivers. Who knows, it might tame that of the Eico 753! Also, it shows a preamplifier, broad-band, for use with a tiny antenna.

HAM RADIO, Dec, has three articles for the UHFer, a rather unusual linear amplifier, and an index for 1968-75.

RADIO COMMUNICATION, Nov, covers a host of intriguing ideas in its Technical Topics.

QST, Dec, tells about the low-profile antenna, bringing out some highly interesting points; by all means, read it! WB6RIV shows a transistor tester and W0YOR tells how to adapt your VOM to read capacitance.

RADIO-ELECTRONICS, Jan, discusses probes and antennas.

POPULAR ELECTRONICS, Jan, shows how to build a thermo-couple DC-to-RF voltmeter. Also tells how to build FM wired-wireless xmtr and rcvr.

ELEMENTARY ELECTRONICS, Jan-Feb, has two articles on antique radio, one on receiving antennas, two very good ones on basic theory, and one on a 13-v DC power supply.

AMATEUR RADIO, Oct, describes a high-power VHF amplifier and also how to "hot up" the Eico 753.....but didn't say how to cut its drifting habits!

73, Jan, abounds with interesting articles, far too many to list! You'll just have to read the whole stack!

CQ, Nov, tells the story of the National AGS. Fascinating! There's good advice on code practice, contest operating, and using ferrites.

HAM RADIO, Jan, has much of interest, but its high point is W6GXN's detailed treatise on diode detectors. Other articles concern a 50-MHz counter, a low-powered wide-band solid-state linear amplifier, and basic troubleshooting.

RADIO COMMUNICATION, Dec, is not up to its usual standard. There's a means of providing an audio signal for blind users of the Ham-m rotor. In Technical Topics an improved wide-range antenna tuning unit is shown.

QST, Jan, continues its fine tradition of having something of true value for everyone. Tops is the article by W2FMI on simple broadband matching of impedances. What could have been good but fizzed out badly is "Impedance of Short Vertical Antennas" by W2WAM. A 15-m solid-state xmtr is well described.

THANK YOU W5HXL

I wish to take this opportunity to thank you for your stable leadership and guidance during the past year. You have not only been the club leader, but have shown a high degree of interest in the campout at Lake Overholser, the field day, and the campout at Lake Thunderbird. When the club editor needed assistance with the paper, I only needed to give you a call. Bob, all of the members of ACARC join me in thanking you. Don W35NXY

There is nothing unique about this beam except (1) it's easy to build, (2) inexpensive, (3) very portable, (4) easy to assemble, (5) works well, and (6) it's ready to use when needed.

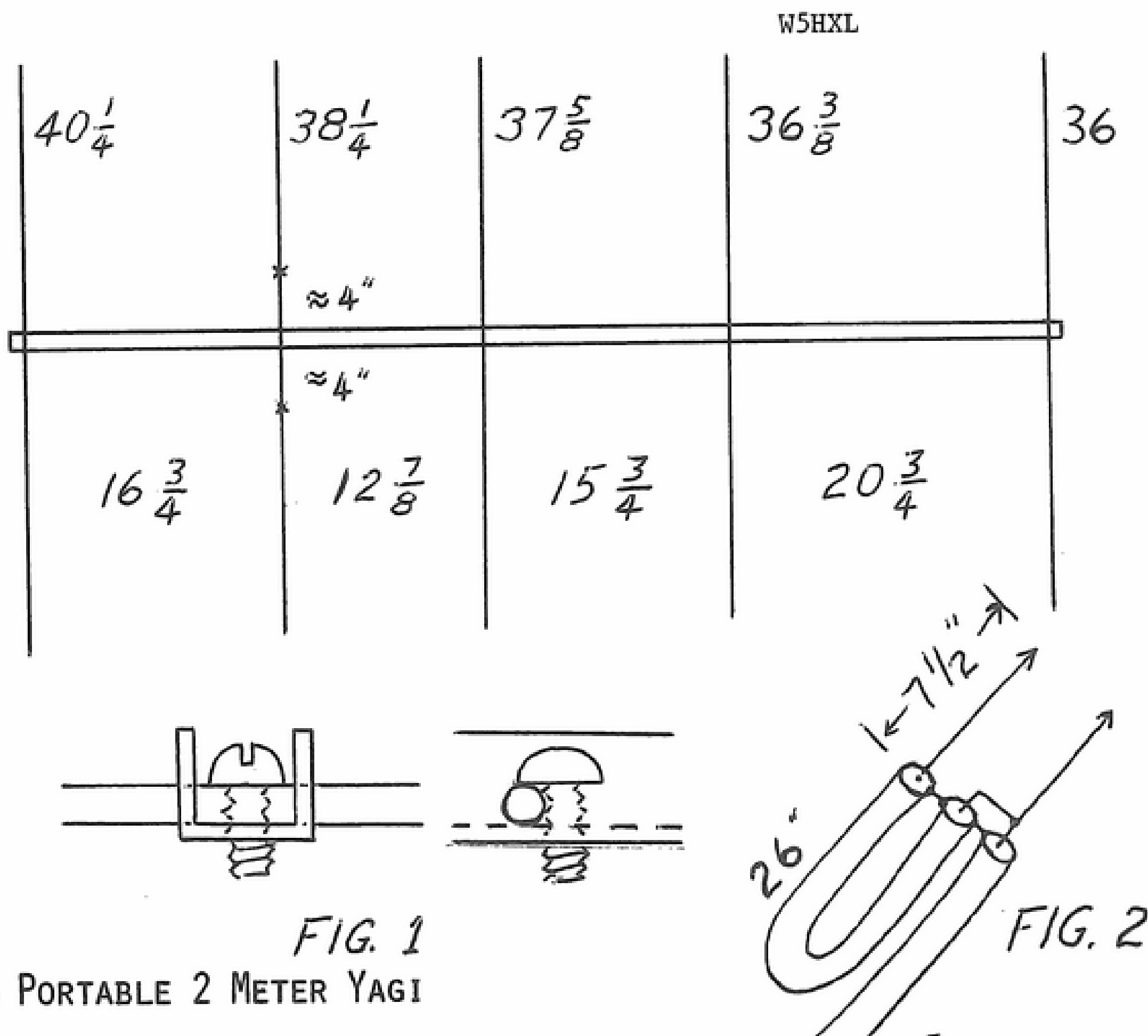
Dimensions for the element lengths and spacing are straight from the ARRL Handbook "An Optimum 5 Element Yagi", scaled to the FM portion of the band. The mechanical construction is the only thing new or different. The elements are cut from 3/16" tempered aluminum rod (the kind used for storm door hinges). The boom is cut from 1/2" aluminum "U" channel available at most hardware stores. 3/16" holes are drilled through the boom for each element with a 10-32 set screw drilled and taped at each element to hold it in place. See Figure 2. Holes for a "U" bolt are drilled half way between the first and second director elements and a notch filed in the "U" channel for mounting to a mast. This makes it "off balance" a little, but it works better electrically. If you are a purist, you may want to go to a 4 element beam that will be mechanically balanced. Mark the center of each element then wrap masking tape around them so you can slide them into the boom until it hits the masking tape, then tighten the screw.

The driven element is fed with a half wave balun and "delta" match. Dimensions are shown in Figure 2. Alligator clips are soldered to the ends of the "delta" match leads for attaching to the driven element. The 7 1/2" dimension is measured to the point on the alligator clips where they grip the driven element. Slide the alligator clips out on the driven element until the lowest SWR is obtained and mark the location for future connection. No difficulty was experienced getting a 1:1 SWR.

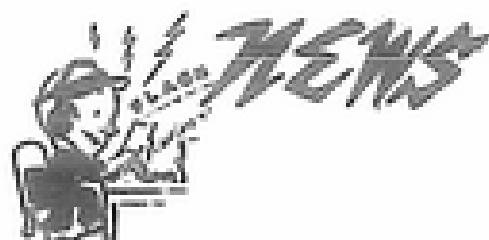
The elements can be stowed inside the boom and secured with tape or plastic wire wraps. It is short enough to stow in the car trunk (sub compacts excepted).

Performance? - don't have an umpteen db over a wet noodle figure, but a comparison was made from Thunderbird to OKC. A one watt rig to the yagi vs a 10 watt rig to a "Ringo" at the same height gave about equal signals into OKC. This is about the 10 db figure expected from this size yagi.

I have found this very useful to have along at portable locations when you can't quite make it without a beam. Try one, you may like it.







From the presidents desk:

The Auto patch met for its December meeting and had a good turn out, with about 30 members showing up.

At this meeting the members present voted to., among other things to meet once every other month or 6 times per year. Since our constitution states that we elect officers in August it works out that our first meeting of the new year will be in Feb. So mark your calendar now for our new meeting time and date. We will meet at the same location, the Oklahoma Military Accacamy at a new time of 7:30 PM and on a new day-the third Tuesday of each month every other month starting on the 17th of Feburary. The new day of the month was selected because many people told me they could not make the meetings on Monday and sfter two years of the kind of attendance we have had I think the old date was conflicting with a lot of your schedules-so much for that . If the new president who takes over in August wants to Set new dates he can.

450 MHZ is here. The club has a repeater on the and instructions on how to construct a little black box to put your two meter rig on 450 with only a flip of a switch will be in the paper next issue. Some of these projects are allready on the air and many others underway . 442.8 input 447.8 out repeater freqs.

The Six meter repeater reciver is working and Dennis WB5ISN transmitted Signals with good Audio on the transmitter on January 18, so as soon as we get the new transmitt crystal and get Jim WB5BNX to take the receiver to Dennis we are ready to put Six Meters in Service. Repeater input is 52.680 MHZ and Repeater output is 52.525 SEE YOU FEB 17th.  
FRANK WB5JBL

This years weather breifing is to be held at our Febuary 17 meeting . Tony K5CFM has made contact with Channel 9 weather people to meet with us. Coordinate maps and other data will be available. All Hams interested in Participating in this years sevear weather net should make an extra effort to attend. Representitives of the various E.) . C.s arround the state are welcome also.  
WB5JBL

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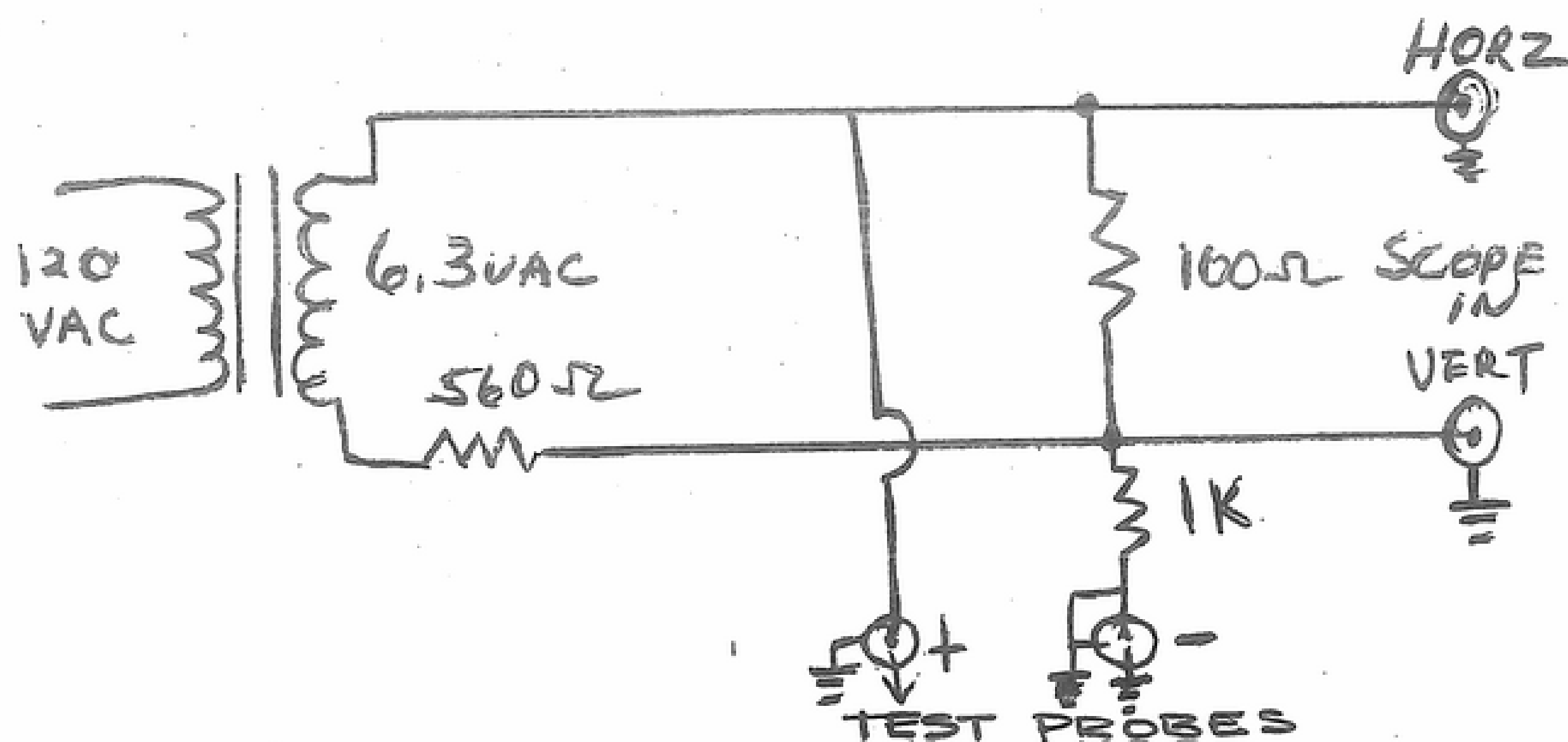
FOR SALE

HeathKit SB300&400 80-10 transmitter and receiver. Excelent condition with all cables and manuales. Rceiver has CW filter and transmitter has Crystal pack. New finals and driver tubes are in the transmitter \$465 for the pair.  
Collins KWS-1, Complete Robot Slow Scan TW System Contact  
WA5UNL Marshal Home 787-9292 Work 787-9548.

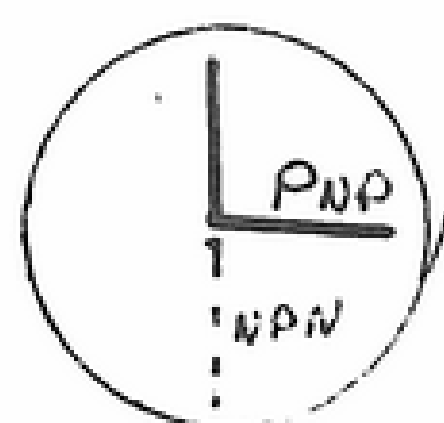
# TRANSISTOR TESTER

Here is an circuit that has been arround for a while and may have been published before in this paper, but it is worth repeating for those who didn't get to see it.

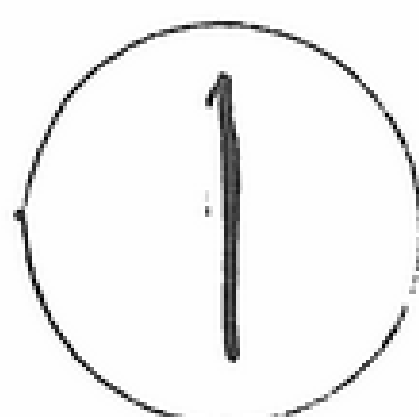
This is a simple circuit for testing transistors and diodes in circuit with an Oscilloscope. This set-up will check diodes, transistors(including FET;S MOS etc, in almost all circuit The voltage at the Test probes should not exceed 1 Volt AC.



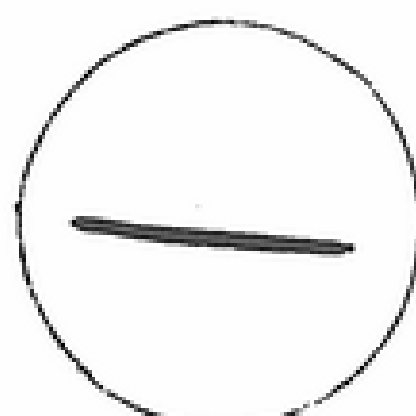
## SCOPE PATTERNS



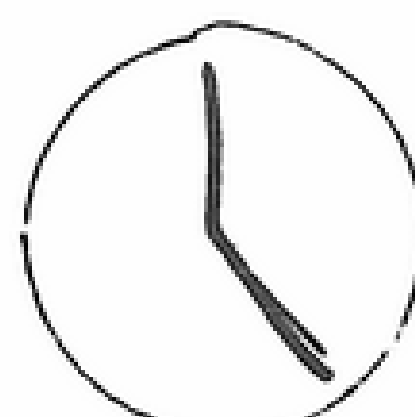
GOOD



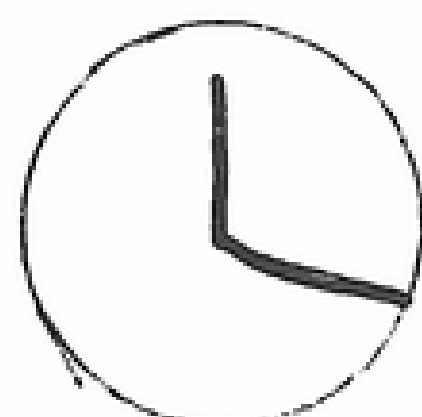
SHORTED



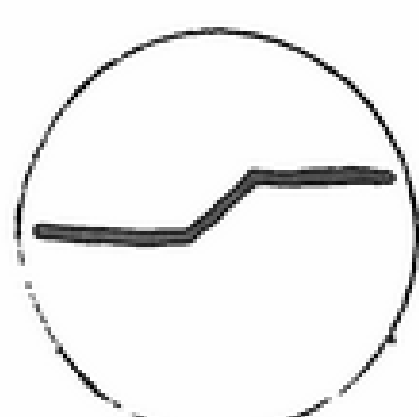
OPEN



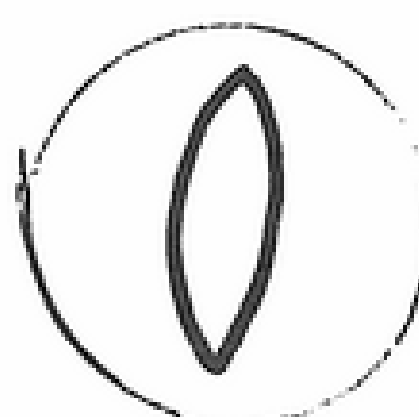
FOR DIODE



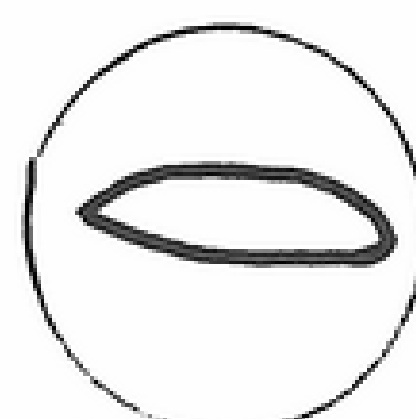
FAIR DIODE



GOOD TRANSISTOR



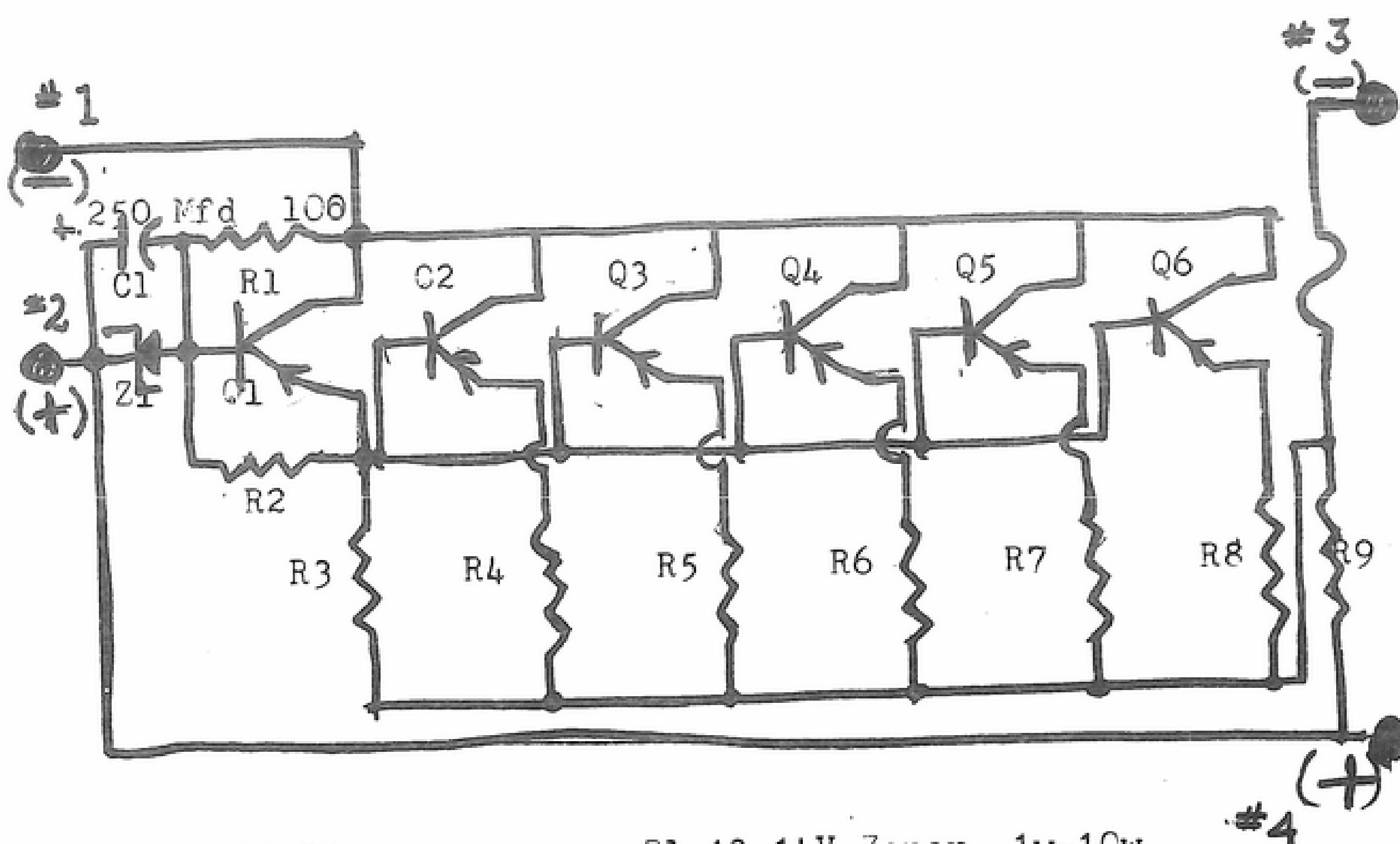
INDUCTANCE



CAPACITANCE

# HIGH AMPERAGE DC VOLTAGE REGULATOR

Here is an cheap and easy DC voltage regulator that will handle large amounts needed to power the 30 to 60 watt FM rigs and amps.



- C1, 250mfd 50v  
R1, 100 10W  
R2, 100 1W  
R3, 39 1W  
R4-8, 0.1 5 W  
R9, 20 20W

- Z1, 13-14V Zener, 1w-10w  
Q1, 2n533  
Q2-6, 2N1099

A well filtered D.C. source of 18 to 22 volts at 24 amperes is supplied to terminals #1 and #2. This needs to be full wave rectified. Terminals #3 and #4 will supply 20 amperes of current regulated between 13 and 14 volts.

Q1 is 2N533 and Q2-6 are 2N1099, all must be mounted on a large heatsink to dissipate excess heat. The 5 .1 ohm resistors may be wound from size #16 resistance wire. Each of these resistors must pass 4 amps and serve to equalize the load on the transistors.

## TO BALUN OR NOT TO BALUN

One side of your dipole or inverted "V" is connected to the center conductor, the other side is connected to the outside shield of your coax. The outside shield of your coax is connected to the chassis of your rig, this is or should be connected to a good ground. NOW one side of your antenna is grounded.

If we put in a 1:1 balun; we now have an antenna with each side swinging equally with respect to ground, as a result the radiated signal is increased many fold. The received signal is also increased by several "S" units.

A 1:1 balun can be purchased from approximately \$8.00 to \$12.00, or you can buy a core for \$2.33 and some #14 poly-thermaleze magnet wire and do it yourself in just a few minutes.

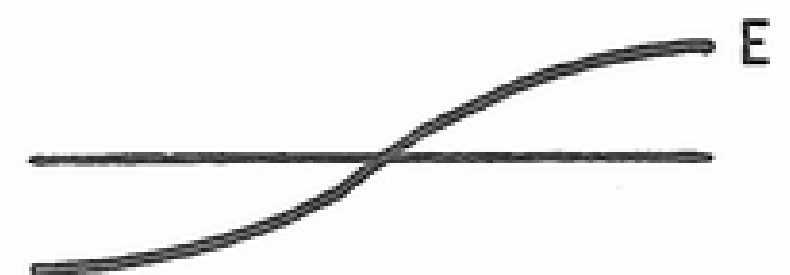
You can buy the torroid for 3 for \$7.00; order T-200-2 (this is a carbonyl "E" core with O.D. of 2", I.D. of 1.25" and .550" thick) or you can order a balun kit using the above core. Order - Balun Kit TK-114 for \$4.50 PPD, this includes the wire. One source is Excelsior Springs Electronic Labs., P. O. Box 434, Excelsior Springs, MO 64024. Follow prescription and winding method in the A.R.R.L. Handbook. I have found for all band coverage 15 to 20 turns works better than the 10 turns given by the handbook. The insertion loss is almost null.



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The source of the above article is purposely deleted. We requested a short article on this subject from Carl Drumeller, W5JJ, which appears below. Carl is eminently well qualified as an expert on the subject; this is not a controversial subject, but rather one on which improper statements often are heard.  
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### UNBALANCED FEED OR HALF-WAVE ANTENNA Carl Drumeller, W5JJ

An oft-repeated claim is made that center feeding a dipole antenna directly from a coax line causes one half of the dipole to be grounded (to RF), thereby negating the radiation from that portion. Such claims display a deplorable ignorance of antenna behavior! A dipole has a standing wave (not to be confused with, but caused by travelling waves) on it as shown in the drawing. This holds true regardless of whether it's center-fed or end-fed, whether the exact center-point is grounded or insulated from ground.



A quarter wave inverts the impedance seen at one end. If the "end" at the center is grounded, the far end displays very high impedance, which supports the voltage maximum point. All "plumber's delight" beams are constructed to utilize this principle, as are the quarter-wave "metallic insulators" used in SHF transmission lines.

## UNBALANCED FEED (Contd)

In short, having the precise center of the dipole grounded has utterly no affect upon its RF voltage or current distribution. A tiny off-set of the center, caused by the spread of a center insulator, effects detectable but totally inconsequential imbalance of RF voltage (and current) distribution. The fact can be demonstrated readily by use of RF "sniffers." See "Ham Radio", May 1973, page 24.

Both of the above articles from  
FEARL NEWS, July 75

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### ELF COMMUNICATION

From the December issue of QCWA NEWS, one gleans from the Washington, DC Chapter a highly interesting morsel. It relates to a talk given by Don McClenon, W3IN, concerning the Navy's ELF communication system. It's on a frequency of 45 Hz! (That's hertz, not kHz or MHz!) A half-wave dipole would be 4000 miles long at that frequency. Wonder how that figure grabs those who believe only resonant antennas at least a halfwave above ground can possibly radiate?

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### COFFEE BASH

It's not in competition with the continuing coffee bash of every week-day morning at 0930 at the Around-the-Corner Coffee Shop, N. W. 50th and MacArthur, but it's a larger one for a once-a-week get 'em all out affair. Where? At Sambo's on N. W. 23rd, just west of Meridian.

Who? Well, the initial bash, held 1000 on Thursday December 4, attracted the following: Ellard Foster, W5KE; Carl Drumeller, W5JJ; J. D. O'Neal, W5TMY; Ed Murta, K5LIL; Wes Bradley, K5MIB; Sunny Bell, W5JCW; Cecil Farris, W5CVJ; Sandy Saunders, W5AZO; Kermit Krueger, K5JEA; Johnny Burns, W5IFA; George Holt, W5DDI; Dutch Fultz, W5MPP; Charlie Sowers, WB5GZU; and Bill Hoffman, W5QIL. That a good enough mob to get you to turn out? If not, there's one more point of attraction: The coffee is just 10 cents a cup, refills are free, the coffee tastes good, and the waitresses are attractive....what more do you want? Egg in your beer?

Some of the gang will be there every Thursday morning. Join 'em!

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FOR SALE -- TS520, like new, manual, original carton, \$500.00  
Joe Schlosser, WA5IMO, 717 W Clyde Ave, Vinita OK  
74301, Phone 918-256-6568.

FOR SALE -- Cush Craft 4 pole, AFM-4D vertical antenna for 146  
to 148 mHz. 9 db gain. Still in original carton.  
Call Bill, WA5RAQ, 632-4375. \$45.00.

FOR SALE -- Drake DC-4, 12v power supply. Collins PM-2 AC power  
supply. Both excellent. Ken, WB5ECJ 751-4917.

### FOR SALE

Ft 101B approximately 12-15 hours with mobile ant 20-40-80 M \$550  
Ken Lenoir WB6SNC 525-9220, X 2380

Drake T4XB, R4A, AC4, MS4 package only. Make offer. Collins 75S3, perfect  
with 200 Hz filter \$500 Ed WA5PWX, 6201 S. W. 22nd, OCK 73128

# Laughing matter

Ad in college newspaper:  
"Sweet little old lady desires to  
correspond with young male  
student — her son."

Night watchmen: yawn patrol.

It's great to have the courage  
of your convictions — as long as  
you're sure what you have isn't  
really the pigheadedness of your  
prejudices.



Sign in an elevator: "Button  
for 8th floor out of order. Push  
5 and 3."

A man well known for his thrift  
was asked how he liked his new  
portable radio.

"Oh, 'tis grand for the music,"  
he replied. "But the wee light's  
turrible hard tae read by!"

Recount: when the chairman  
can't believe his ayes.

Asked by a visitor what his  
name was, the little boy answered,  
"Six and Seven-Eighths."

"What an odd name! Where  
did your parents get it?"

"They pulled it out of a hat."

A head: what you have to use  
to get.

Travel lecturer, concluding her  
slide show on the sights of Eur-  
ope: "There are some spectacles  
one can never forget."

Member of the audience: "If I  
hadn't forgotten mine, I'd agree  
with you!"

What keeps most would-be in-  
vestors out of the stock market is  
the supermarket.

An actor made up for a role as  
a priest met a small girl outside  
the theater. "Will you bless me,  
Father?" the child asked.

"My dear," smiled the actor,  
"I'm not a real priest."

"Oh," the little girl said. "Well,  
in that case, will you bless my  
doll?"

Overheard on the commuter  
special: "I met a very well reared  
girl. Come to think of it, she  
wasn't bad from the front, either."

One rabid golfer, who used  
every trick to gain an advantage,  
frequently had to be called down  
for trying to tee up several inches  
in front of the marker.

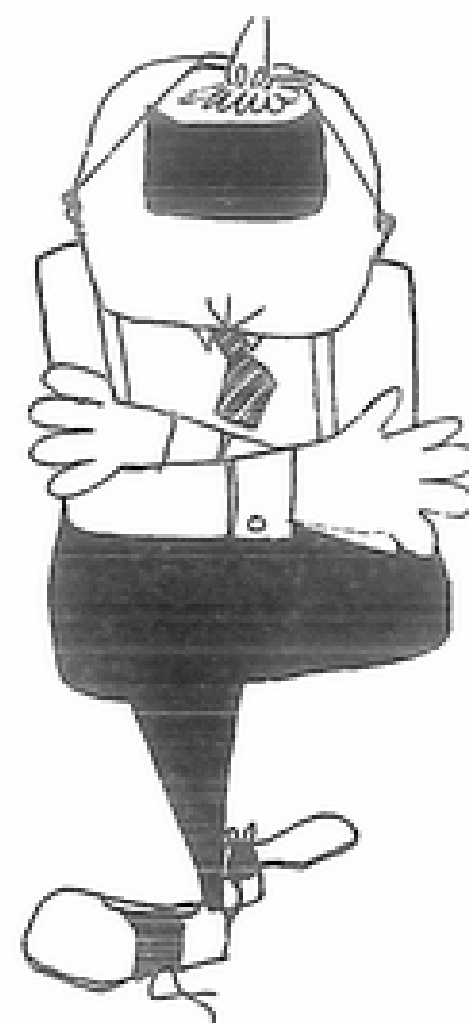
When he complained of some  
rather vague ailments, his doctor  
— who was also his golfing com-  
panion — did an extensive physi-  
cal examination and ran a num-  
ber of tests. With all the reports  
in, the doctor announced:

"My friend, I've got some bad  
news and some good news. The  
bad news is that you're under-  
going a profound physical trans-  
formation; that within the year,  
you'll have become a female."

"Oh, no!" cried the golfer.  
"What on earth is the *good* news?"

"Well," said the doctor with a  
sly grin, "you'll be allowed to  
drive from the women's tees!"

And then there was the baby  
bobcat who joined the Red Cross  
because he wanted to become a  
first aid kit.



Isn't it interesting how many  
young people who got bachelor's  
degrees in June are now going to  
graduate school to tackle head-on  
such subjects as economics, re-  
cession, inflation, unemployment  
— and all the other problems  
they won't have to tackle head-on  
because they're going to gradu-  
ate school?

Halloween is the day when lit-  
tle kids dress up the way teen-  
agers do all the rest of the year.

An eccentric fellow smugly  
showed his neighbor an animal  
that appeared to be a dog. "He's  
unique," he exclaimed. "He's  
part dog and part bull, and he  
cost a thousand dollars."

"Which part is bull?" asked the  
astonished neighbor.

"The part about the thousand  
dollars."

One of the most exciting ways  
to travel is by wet soap.



"I've got something to tell you,  
dear."

THE ZANY NEWS FREQUENCY

Joe, WA5ZNF

HAPPY BIRTHDAY DEAR CORA COLLECTOR & EMITTER

With this issue we go into Volume 2 Number 13 and get a new dress for a birthday present and what could be more appropriate for a nice young lady named CORA? A year isn't forever and some didn't give her a year to live but through the efforts of a wonderful bunch of amateurs in the metro area she is living and breathing, the spirit of cooperation between all the clubs with their various special emphasis working together in the interest of amateur radio in general.

To try and list all who have helped to get each issue out would take the rest of this page. Of course our four club editors, five counting the one who had to resign due to business changes, are the first ones who come to mind. They have worked hard to represent their club and see that your three allotted pages were full of news and articles that were of special interest to your particular club and in doing so came up with a lot of cross-modulation that benefitted everyone. Fact of the matter I have had at least a dozen XYL tell me that they read it before the OM gets home and have enjoyed the articles--well most of them. Back to the editors. Tell them what has been happening, maybe they missed that item, have you been building, have you been discovering things? Share it all with your friends. When we were fresh out of college Frances and I published a weekly newspaper and the Chit-Chat and news of what others were doing in town had better be there or we would hear about it. With instant communication through all of the local repeaters lots of news gets around but only to those who happen to be monitoring. Put it in writing or pick up the phone and call your club editor or hit me with it. Yes the editors have worked hard and they were aided by a lot of people who show up on make-up night to help put the paper together and on mailing night to collate, staple, fold and address. Three XYL in particular have really been a big help, Brooksie Freeman, Dot Peters and Frances Harding. TNX to all.

I have put in an awful lot of hours helping her grow up in the last year but I have loved every bit of it, sort of like seeing your own offspring grow up. And I appreciate all of the cooperation--well there have been a few who have moved and their paper came back because they didn't notify me of their new address but I guess it was their loss as we wait until we get a good address and then mail only the new issue.

\* \* \* \* \*

YOUR LICENSE MAY BE DUE FOR RENEWAL - Have you looked lately? I had written it on a 1976 calendar so remembered it. The new fee for renewal was sent to Box 1020, Gettysburg PA 17325 and I am waiting. (It's \$4)

\* \* \* \* \*

OU ARC BULLETIN - Received an exchange copy and it appears that they are moving right along. They have a "new" SB-200 - as soon as it is overhauled.

\* \* \* \* \*

HAM HOLIDAY TIME IS RAPIDLY APPROACHING - All club representatives, club officers, CORA officers and those who would like to get in on the fun of putting on a popular good-time activity should make the next meeting - FRIDAY 30 January - 7:30 p.m. - at the Red Cross bldg. 10th & Hudson. I wouldn't miss it, had more fun than a barrel of monkeys the last two times.

FEBRUARY HAM HAPPENINGS						
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	2 GROUNDING day	3 MORI meeting	4	5	6 ACARC meeting	7
8	9	10	11	12	13	14 ♥ XYL DAY
15	16 HOLIDAY WASHINGTON BIRTHDAY	17 OKCAP meeting	18	19	20 VHF CLUB meeting	21
22	23 EDIT C + E	24	25	26	27	28
LEAP 29 DAY	COMING UP April 3/4      Lawton/Ft Sill Hamfest April 23/24/25 Muskogee Hamfest at Tahlequah June 12/13    Lake Overholser Campout/Picnic June 26/27    Field Day					

See page 2 and Club Sections for details.

# amateur radio



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