

HAM RAG

Affiliated with ARRL

NET meets each Monday at 9:00 P.M. local time on 28.7 megahertz



OCTOBER 75

ONE MORE TIME:

THE OCTOBER MEETING WILL BE ON:

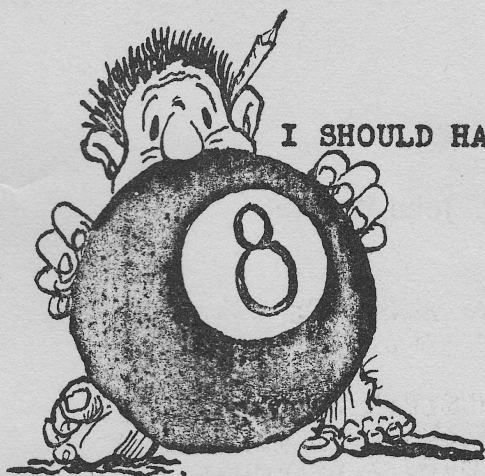
BIOTELEMETRY

AND

THE ELECTION OF OFFICERS FOR 1976.

MEETING DATE IS OCTOBER 10 AT 7:00 P.M.

BE THERE!



I SHOULD HAVE GONE TO THE LAST MEETING

PRESIDENT'S LOG

Another month has rolled by, and the days for antenna work are getting shorter. I hope that those of you who had antenna work in your plans for this year will be able to complete them before cold weather is upon us.

Our October meeting should be a busy one. We should have the final results of the Ham-Fest. We will have election of officers and a short program. I also hope to have a few details about our upcoming Christmas Party. Yes, the time is rapidly approaching for that event.

Our September meeting was not a howling success. I, as well as the other officers, ran into some conflicts and could not make it to the meeting. Bill, WB9KOS, was very kind and agreed to fill in for the President in his absence. Thanks to you, Bill, because I know how difficult last-minute assignments and requests can be. Thanks again for filling in for me.

The land line at my QTH has been rather dormant lately. I haven't heard from too many "Hams", but I am hoping that a killing frost will make the "Hams" become livelier.

Jack Muntz, WN9PCA, our Treasurer, has done a remarkable job of keeping the money records in fine shape; and Byron Dale, WB9PBZ, has had his hands full with the minutes, etc. We have had some extra meetings this year because of the re-writing of the Constitution and the By-Laws. The Board of Directors has responded well on all occasions. R.A.R.A. can be proud of this group of people.

That is about all the "rag-chewing" for now. See you Friday, October 10, at 7:00 p.m.

73

John Wacker

October 3, 1975



A MODERN "Q-5'er"
By ART NELSON WB9HNJ



MANY OLD TIMERS AND SOME NOT SO OLD TIMERS WILL REMEMBER THE SURPLUS BC-453 COMMAND RECEIVER OTHERWISE KNOWN OF AS THE "Q5'er" THIS RECEIVER TUNED THE FREQUENCY RANGE FROM 190 to 550 KHz AND IN THE FORM OF THE Q5'er IT FUNCTIONED AS AN OUTBOARD SHARP CHANNEL I.F. THE PURPOSE OF THIS ARTICAL IS TO SHOW HOW TO CONVERT THE KOREAN WAR VINTAGE R-11A RECEIVER FOR THE SAME USE. THESE RADIOS ARE CHEAPER THAN THE BC-453 WHICH IS BECOMING SCARSE.

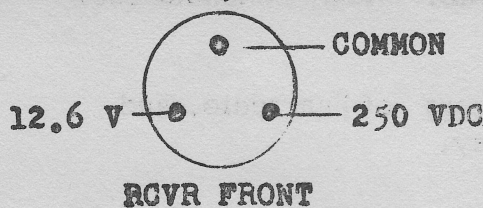
RECEIVER CONVERSION

THE FIRST ORDER OF BUSSINESS IN THE CONVERSION IS TO CHECK AND MAKE SURE THAT ALL TUBES ARE IN THEIR PROPER SOCKETS. TO DO THIS REMOVE THE TOP COVER WHICH IS HELD IN PLACE WITH SNAP LOCKS. IF EVERY THING IS OK REPLACE THE COVER. NEXT REMOVE THE BOTTOM COVER. THE FILAMENTS OF THE UNIT IS WIRED IN SERIES PARALLEL FOR OPERATION WITH 28 VOLTS. FOR USE WITH 12 VOLTS THE FILAMENTS MUST BE RE WIRED FOR PARALLEL OPERATION. NEXT REMOVE THE RELAY MOUNTED IN THE FRONT OF THE RADIO AND SOLDER THE TWO GRAY WIRES TOGETHER THAT DO NOT CONNECT TO J-603 (or J-A). NEXT SOLDER PIN E OF J-603 (or J-A) TO GROUND. NEXT EXPOSE THE WIRING OF J-606 (or J-C) BY REMOVING THE SIX SCREWS ON ITS MOUNTING PLATE, AND SOLDER PINS A AND E TOGETHER. THIS COMPLETES THE CONVERSION.

OPERATION

FOR OPERATION A POWER SUPPLY SUPPLYING 250 VDC AT 80MA AND 12.6 VAC AT 1 AMP MUST BE BUILT. THE RECEIVER POWER CONNECTIONS ARE SHOWN IN FIGURE 1. NEXT PREPARE THE DESIRED LENGTH OF COAX CABLE AND SOLDER A BNC CONNECTOR TO ONE END. THE OTHER END HAS ITS SHIELD CONNECTED TO GROUND AND THE CENTER CONDUCTOR CONNECTED TO THE PLATE OF THE LAST I.F. AMPLIFIER TUBE. FOR OPERATION THE MAIN RECEIVER HAS ITS AUDIO GAIN TURNED ALL THE WAY DOWN AND A PAIR OF HEADPHONES OR A SPEAKER WITH A 600 to 8 OHM TRANSFORMER IS PLUGED INTO THE TEL JACK ON THE R-11 AND THE I.F. FREQUENCY IS TUNED IN ON THE R-11. FOR ADDED SELECTIVITY FOR C.W. WORK UNSCREW THE TOPS OF THE THREE I.F. CANS AND PULL THE FIBER RODS IN THE CENTER OF THEM ALL THE WAY OUT. THESE UNITS ARE AVAILABLE FROM RAIR RADIO IN OHIO FOR \$12.95 AND AT HANFESTS FOR \$2 to 10.00

FIG. 1



SURPLUS
CORNER

ROCKFORD AMATEUR RADIO ASSOCIATION, INC.
P.O. BOX 1744 ROCKFORD, ILL 61110
1975 BOARD OF DIRECTORS

- | | | | |
|--------------------|----------|---------------------------|----------|
| John Wacker, Chmn. | 399-1695 | Dick Connors WB9IED | 877-7722 |
| Jim Clark W9BAV | 226-5696 | Earl Davis WB9KOR | 633-4225 |
| Byron Dale WN9PBZ | 965-2519 | P.D. "Mick" McBride W9NKQ | 399-7973 |
| Jack Mintz WN9PCA | 964-1842 | Mike Oberg WB9JAU | 399-5925 |

DISTINGUISHED ALUMNUS VISITS ROCKFORD

Fred Lagerholm, an early Rockford ham, returned for a short visit recently, which triggered a pleasant reunion of his friends of early years. His first call was 9DSS before prefixes were adopted, and is now WØQL, radiating from Kimberling City, Missouri, in the beautiful Ozarks. He has retired after a successful business career, and now has time to enjoy operating his Collins gear on CW and SSB, with many scheduled contacts with old friends. He recently got his feet slightly wet on 2-meter FM.

Fred and many of his early Rockford ham friends got together on September 23rd for an informal dinner at the Top Hat Restaurant. Reminiscences, up-dating, reviewing early photos, and a few good humored lies prevailed. Reg Wells returned Fred's home made wavemeter (borrowed 35 years ago) which demonstrates the honesty typical of fellow hams - albeit a little slow.

Some time was spent in studying a 1923 edition of the U. S. Amateur Call Book, published by the Department of Commerce - for just two bits a copy - and listing all U. S. hams alphabetically by call signs and also by last names. The 9th district then included what is now the Ø district, plus parts of the 4th and 5th. Perusal of this call book recalled some nearly forgotten contacts from the dim and fading past.

Eleven guys showed up. Five more were, regrettably, unable to attend for good reasons. Those present, in the order of the date on their first license, were:

W9MAP	Ernie Storer	1920	W9BNO	Paul Johnson	1929
WB9KOS	Bill Ridgway	1920	W9AGV	Ev Hallquist	1929
W9VZ	Claude Middleton	1921	W9GKI	Reg Wells	1931
W9FL	Maury Nelson	1923	W9TET	Carol Carlson	1934
WØQL	Fred Lagerholm	1927	K9KLY	Rudy Benander	1957
W9GXQ	John Alexander	1928			

This group represents 506 years of ham radio, and every one of them is active on the air today.

DO NOT use CQ or QRZ. These are not considered appropriate for repeater operation. If you wish to contact another station, just call that station. If you wish to notify others that you are listening on the repeater, give your call and so state.

DO NOT key the repeater with your mike button to determine the repeater is in operation. Relays wear out and cost money.

DO NOT use the repeater for long "rag chewing" sessions. Please use simplex frequencies when possible. Short conversations between mobiles and base stations beyond simplex range is certainly permissible. Use common sense about length of contacts and needs of others for the repeater.

DO NOT abuse auto-patch privileges. Business messages of any kind are not permitted. Calls to any number which is answered by a business identification, whether your office or home or weather information from banks etc. is not permitted. If in doubt, contact your E.A.R.S. officers for verification.

DO NOT use the word "Break" to interrupt a conversation unless you have emergency or priority traffic. Instead, give your call and wait for the other parties to acknowledge you and allow you to join in with them. Other parties should show common courtesy and allow other stations to use the repeater. "Break" and "Break-Break" is being used on a nation-wide basis as a request for use of a repeater for emergency or priority traffic. WE wish to develop this practice locally if all will cooperate.

DO indicate you wish to use the auto-patch and pause a few seconds in event emergency traffic is waiting for a reply etc. Then use the #(lb.) and then the *(star) to actuate the system. When your traffic is completed, close your conversation with: "W9xxx mobile 9, clear auto-patch through WR9AES". Then remove the auto-patch system from operation by hitting the #(lb.) sign. You must do this even if the repeater has timed out during your auto-patch call. Failure to follow this rule will result in the auto-patch being in operation while the transmitter is down and cause a malfunction of the repeater. If problems, ask one of the control stations for aid. Only Rockford phone numbers at the present time can be phoned.

DO pause between transmissions to let priority traffic or others indicate the need for the repeater.

DO (at the present time) wait for the "squelch tail" before transmitting.

DO refrain from using the repeater (other than emergency) if you determine it is starting to malfunction and save the equipment from further damage.

DO follow the directions of the control stations (there are six of them and they will identify themselves as such) when restrictions are needed in the operation of the repeater.

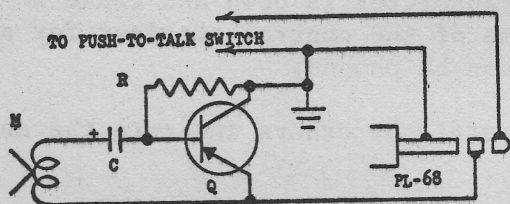
DO properly identify yourself by giving your call and if mobile or portable, the zone (normally 9) after your call.

DO attend meetings and voice your recommendations, complaints, praise and help maintain the effective operation of the repeater with your support with financial donations as needed.

E.A.R.S. MEMBERSHIP

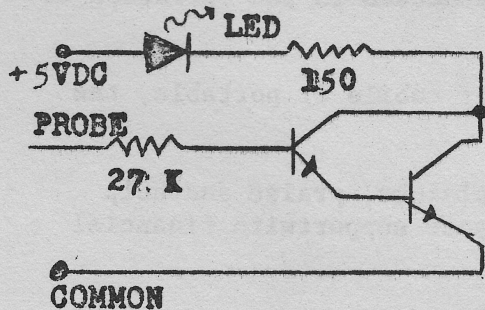
K9AMJ	Herb	W9IBO	Frank	WA9PBQ	Paul
WB9ARN	Denny	W9IGB	Bob	K9PGW	Claude
WB9BHY	George	K9IKP	Gene	W9QGT	Chuck
W9BKW	Bud	WB9ILH	Ray	K9QYY	Jay
WA9BLI	Fred	K9IUD	Paul	K9TKT	Russ
WA9BNK	Jim	WA9IYK	Bill	WA9UNA	Roy
WA9BWK	Dalo	K9KCX	Bob	WA9UTG	Van
W9BYZ	Lowell	W9KG	Bud	K9UWN	Jack
WB9CHU	Dud	K9KGV	Lloyd	K9UWO	Frank
W9COX	Clark	WB9KOS	Bill	K9VFU	Denny
K9CUQ	Floyd	WB9KZQ	Jim	K9VJE	Stu
W9DQF	George	WB9LEF	Dame	K9VJJ	Paul
VE3DKY/9	Shelli	K9LKA	Larry	K9VMI	Frank
WA9BQM	Tiny	WB9LOM	Jerry	W9VTL	Ray
WB9BTH	Jim	WA9LRZ	Howie	K9WIP	Lee
WB9EZY	Tom	W9MAP	Ernie	W9WOQ	Fred
WA9FFL	Paul	W9NKQ	Mick	WA9WSR	Milo
W9FNT	Dick	WA9NTT	Bob	WA9WVY	Lee
W9FX	Rod	W9NWB	George	W9WVY	Lloyd
WB9GEB	Randy	WB9CGD	Frank	John Wacker	
WB9HHH	Ralph	WB9OHI	Randy		
WA9HLJ	Gerry	K9OMQ	Ed		
WB9HNJ	Art	K9ORU	Mike		

Total of 66 as of this date



C.....50 MFD, 15 WVDC ELECTROLYTIC CAPACITOR
M.....LOW IMPEDANCE DYNAMIC MICROPHONE
Q.....PNP POWER TRANSISTOR (SEE TEXT)
R.....1/2 WATT COMPOSITION RESISTOR (SEE TEXT)

HERE IS A SIMPLE CIRCUIT THAT WILL ALLOW YOU TO USE A DYNAMIC MICROPHONE WITH A RIG THAT ORIGINALLY USED A CARBON MICROPHONE. IT CAN BE BUILT IN ANY WAY. THE TRANSISTOR CAN BE ANY MEDIUM POWERED PNP UNIT.



HERE IS A VERY SIMPLE TO BUILD BUT HELPFUL LITTLE GADGET. WHAT IS IT IT'S A DIGITAL LOGIC PROBE FOR USE WITH INTEGRATED CIRCUITS. THE PROBE MAY BE CONSTRUCTED ON PERF BOARD AND THEN INSTALLED IN ANY CASE YOU CHOOSE TO USE. THE TWO TRANSISTORS ARE ANY SMALL NPN SWITCHING TYPE.

2

QRP WITH THE HW-16
BY DAVE LARSEN WB9HPV

WAY
POWER
OPTION

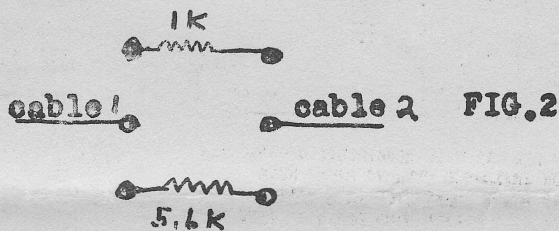
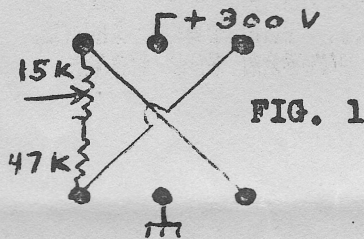
I WOULD LIKE TO SHARE SOME QRP FUN WITH ANY OF THE WOULD BE QRP'ers IN THE CLUB WHO OWN HW-16 RIGS BY HEATH. AS YOU ALL KNOW I AM AN AVID QRP FANATIC, MY INFORMATION IS ABOUT AN EASY MODIFICATION TO THE HW-16 WHICH ENABLES IT TO OPERATE ON QRP, ABOUT 2 TO 8 WATTS OUTPUT, ACCORDING TO THE VOLTAGES AND CURRENTS WHICH THE RIG PROVIDES. FOLLOWING IS THE ACTUAL CONVERSION.

REMOVE THE TOP XTAL SOCKET AND ASSOCIATED WIRES, THIS IS WHERE THE TWO MINI TOGGLE SWITCHES WILL BE INSTALLED. ONE OF THESE TWO SWITCHES WILL BE USED TO CHANGE THE FINAL SCREEN VOLTAGE AND THE OTHER IS USED TO VARY THE SENSITIVITY OF THE OUTPUT METER SO IT WILL OPERATE AT THE QRP POWER LEVEL.

INSTALL ONE DPDT SWITCH IN ONE CRYSTAL SOCKET HOLE AND WIRE AS SHOWN IN FIGURE 1. THE 15K RESISTOR IS THE POWER LEVEL CONTROL KNOB. IN THE QRP MODE THE CONTROL WILL WORK IN REVERSE. THE 15K AND 47K RESISTORS ARE NOT MOUNTED ON THE SWITCH ITSELF. THE DIAGRAM IS FOR SCHEMATIC PURPOSES.

TO MAKE THE METER MORE SENSITIVE THE 1K AND EITHER THE 5.6K OR 4.7K RESISTORS WILL BE MOUNTED ON THE SECOND SWITCH WHICH IS MOUNTED IN THE OTHER XTAL HOLE. REMOVE R 16 FROM THE LUG IT IS CONNECTED TO AND FROM THE ANTENNA JACK RUN SOME RG-178/U UP THRU THE CHASSIS TO THE SWITCH. USE ONLY THE CENTER CONDUCTOR. RUN ANOTHER PIECE OF CABLE FROM LUG 2 OF TERMINAL STRIP R, WIRE AS SHOWN IN FIGURE 2. TUNE THE RIG UP IN THE NORMAL MANNER.

FOR SOME VERY INTERESTING QRP READING CQ MAGAZINE NOW HAS A MONTHLY QRP COLUMN. IT HAS QRP RIGS TO BUILD AND DXCC AND WAS STANDINGS FOR QRP'ers.



LIKE TO DO INTERESTING THINGS? WHY NOT WRITE AN ARTICAL FOR THE HAM RAG. ALL YOU NEED DO IS FOLLOW A FEW SIMPLE GUIDE LINES AND YOU HAVE IT. HERE THEY ARE. THE ARTICAL MAY BE ONE PAGE OR LESS OR A LITTLE MORE IN LENGTH. IF YOU TYPE THE ARTICAL PLEASE SINGLE SPACE YOUR LINES. WE ALSO WILL TYPE YOUR ARTICAL UP FROM A ROUGH DRAFT AND WILL RE-DRAW SCHEMATICS FROM ROUGH DRAWINGS. THE MOST IMPORTANT THING TO REMEMBER IS TO MAIL THE ARTICAL TO ME AS THE COST OF GAS FOR MY TANK PROHIBITS THIS AND BESIDES IT COSTS NO MORE TO SEND ME YOUR ARTICAL THAN IT DOES TO MAIL A QSL CARD. MY ADDRESS IS ART NELSON 7650 PARK ST. ROCKFORD ILL, 61103. GET OUT YOUR PENCILS AND DO AN INTERESTING THING.

TRADER'S CORNER

WANTED HEATH KIT HP-13 OR EQUIVALENT. ALSO VOX UNIT FOR SWAN 240. CALL PAUL WA9FFL at 399-9233

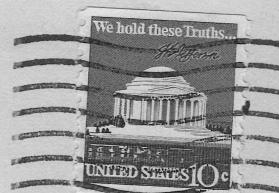
FOR SALE GONSET G-50 6METER A.M. TRANSCEIVER WITH CRYSTAL FOR 50.4. ALSO A HY-GAIN HALO AND 4 ELEMENT BEAM FOR 6METERS. \$150. CALL DAVE WB9HPV 965-0955

WANTED TUBES, 14A7, 14R7, 14B7, 9002, 9003, AND 12A6'S CALL ART WB9HNJ AT 633-8647

WANTED 73 MAGAZINES YEARS 61, 62, 64, 65, 66, 67. PARTIAL YEARS ALSO ACCEPTED CALL BOB WN9QPP 226-8074

FOR SALE KNIGHT V 107 VFO FOR SIX AND TWO METER RIGS \$5. DOW KEY ANTENNA RELAY \$5 BRUSH DC AMPLIFIER AND DUAL CHANNEL CHART RECORDER \$20 CALL ART WB9HNJ 633-8647

ROCKFORD AMATEUR RADIO ASSOCIATION INC.,
P.O. BOX 1744, ROCKFORD, ILLINOIS 61110



*Paul Dean WB9HGZ
317 Shaw St
Rockford Ill
61108*

FIRST CLASS