

# HAM RAG

Affiliated with ARRL

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



MAY 1972

THOSE OF YOU WHO CAME TO THE APRIL MEETING EXPECTING TO FIND OL' PAK WITH HIS BOXING GLOVES ON READY TO FIGHT PHIL HALLER ABOUT THE ARRL WERE PROBABLY DISSAPOINTED. CUZ PAK COULDN'T FIND MUCH TO ARGUE WITH. IT WAS CLEAR THAT PHIL IS VERY KNOWLEDGEABLE ABOUT THE ARRL, ITS ACCOMPLISHMENTS AND ITS SHORTCOMINGS. JUST AT THE END OF THE MEETING, WHEN EYEBALL QSO TIME WAS IN ORDER, THE SKY OPENED UP WITH TORRENTS OF RAIN CUTTING THINGS SHORT AND DAMPENING A LOT MORE THAN SPIRITS. SO, WE HOPE WE CAN GET PHIL BACK AGAIN REAL SOON FOR ANOTHER FB MEETING.

ONE CURIOUS ITEM CAME OUT OF QST THIS MONTH, W2NSD HAS FOR AT LEAST THE PAST YEAR BEEN BUGGING THE ARRL ABOUT HAVING A REPRESENTATIVE, OR LOBBY, IN WASHINGTON TO HELP THE FIGHT FOR AMATEUR RADIO INTERESTS. THE ARRL REPLIES THAT CONGRESSMEN HAVE NOTHING TO SAY ABOUT FCC PROCEDURES, AND THE ONLY WAY IS TO PETITION THE FCC THRU PROPER CHANNELS. YET, IN LEAGUE LINES COLUMN IN MAY QST, THE ARRL SUGGESTS YOU WRITE YOUR CONGRESSMAN IN OPPOSITION TO THE EIA 220MHZ PROPOSAL. THEY SAY THE CB LOBBYS HAVE BEEN DOING A BANG-UP JOB WITH CONGRESSMEN, AND WE HAD BETTER WRITE HIM TO TELL HIM OUR SIDE OF THE STORY.

ONE THING THAT CAME TO MIND ABOUT THE CB PROPOSAL THAT I HAVEN'T SEEN BROUGHT OUT YET. THERE STILL EXISTS A CLASS A AND B CITIZEN'S BAND IN THE 460 MHZ REGION THAT IS VIRTUALLY UNUSED. THE ONLY MANUFACTURER OF GEAR FOR THIS BAND WAS VOCALINE, AND I HAVEN'T HEARD FROM THEM FOR YEARS. WITH TODAY'S TECHNOLOGY THERE IS NOT TOO BIG A DIFFERENCE IN MAKING GEAR FOR 220 OR FOR 460 MHZ. EVEN JOHNSON RADIO THE BIG PUSHER BEHIND 220 CB HAS MADE LOW COST 450MHZ GEAR FOR YEARS. APPLYING FOR A 460 CB LICENSE IS NO DIFFERENT THAN FOR A 27 MHZ. BOX TOP PERMIT, SO WHAT IS STANDING IN THE WAY OF THE MANUFACTURERS PROMOTING AND EXPLOITING THIS BAND?? AND, I RECALL SOMETHING ABOUT A 50 WATT POWER LIMIT ON THIS BAND, SO THEY ALREADY HAVE THEIR CAKE BUT NOBODY IS EATING.... WONDER WHY?

OUR LOCAL AMATEURS HAVE BEEN BUSY LATELY WORKING WITH RACES IN THE SEARCH FOR TWO LOST CHILDREN, AND FOLLOWING FLASH FLOODING FROM THE HEAVY RAINS THAT OCCURRED THE NIGHT AND WEEKEND AFTER THE APRIL MEETING. IT WAS GOOD TO HEAR MANY AMATEURS OFFERING THEIR SERVICES WHEN THE CALLS FOR HELP WENT OUT. DETAILS OF THE EVENTS WERE SENT TO QST AND WILL PROBABLY BE IN UPCOMING ISSUES. THANKS TO ALL.

DE K9PAK

**SIMPLE CENTER INSULATOR  
FOR COAX ANTENNA**

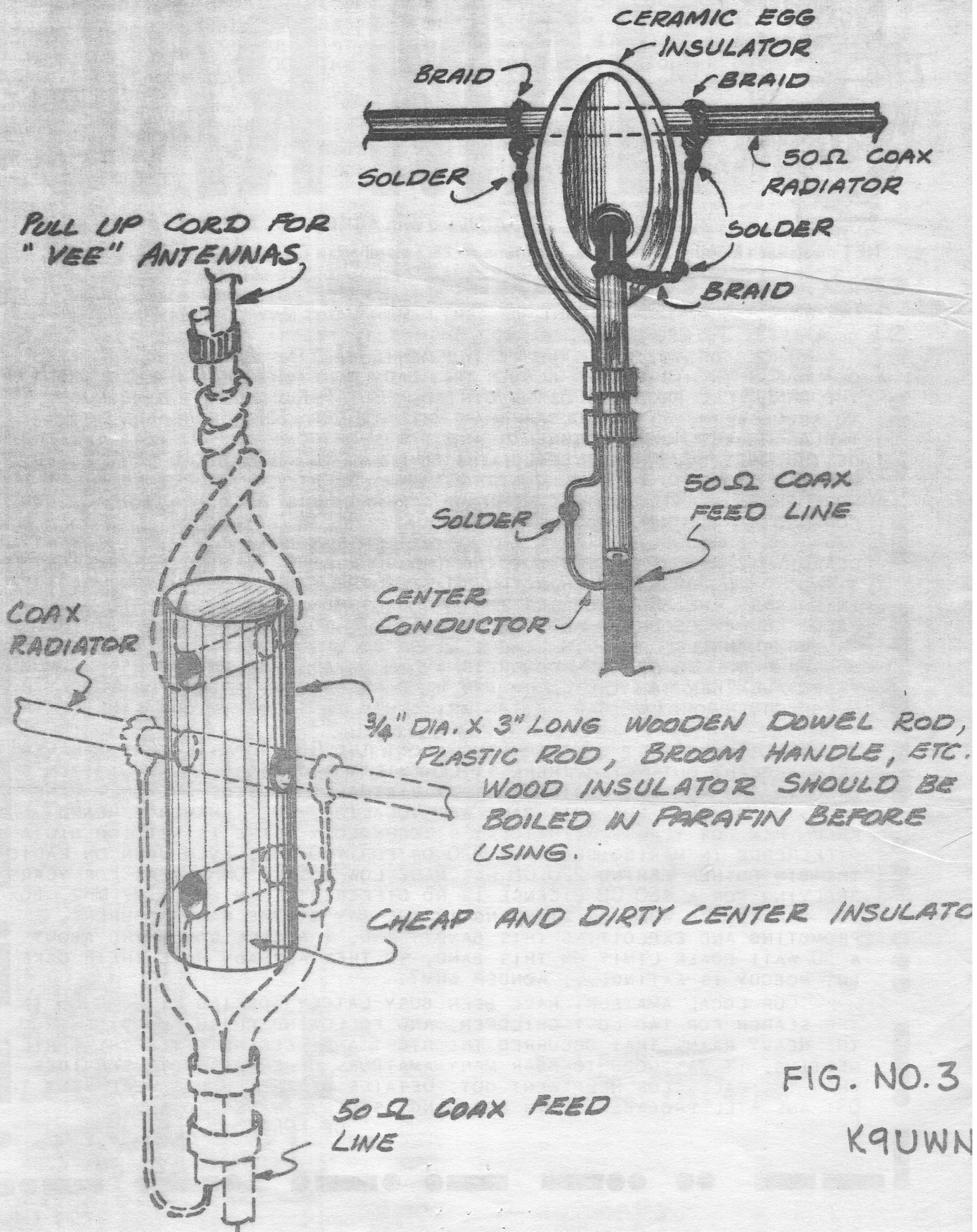


FIG. NO. 3

K9UWN

\*A TECHNICAL AND SOMETIMES NOT SO TECHNICAL EXPOSE OF THE F3 MODE OF OPERATION IN THE N, ILLINOIS AND S, WISCONSIN AREA.

### FREQUENCY COORDINATION...REVISITED,

THE PROBLEM OF WHAT FREQUENCY TO PUT A REPEATER ON IN THE CHICAGO VICINITY HAS BEEN AN EVER INCREASING HEADACHE,, ESPECIALLY TO THE WA9LIV GROUP, RECENTLY HAVING VACATED 34/76, THEY JUMPED FROM THE FRYING PAN INTO THE FIRE ON 145,95-146,55. THE SITUATION INVOLVES A TANGLE WITH A GROUP NORTH OF MILWAUKEE, THE NEW REPEATER UPDATES NOW SHOW THAT LIV HAS MOVED ITS INPUT TO 145,75. WA9ORC SEEMS TO HAVE FAIRED THE BEST, CHANGING ONLY THEIR INPUT TO ,16. WB9ADW (GENOA) IS ALIVE AND WELL ON 13/73, ALTHOUGH THEY LOST SOME ACTIVITY IN THE SWITCH-A-ROO POSSIBLY DUE TO WARY ACCEPTANCE.

### T T Y

SOME INTEREST HAS BEEN SHOWN IN FM COUNTRY IN 2 METER RTTY. THERE IS PROBABLY NO OTHER FACET OF 146 MHZ OPERATION SO WELL ESTABLISHED ON ONE FREQUENCY, 146.70. SO FAR W9BQC IS ABOUT THE ONLY ONE READY TO GO.

### N.I.R.A. News

THE NORTHERN ILLINOIS REPEATER ASSOCIATION'S 146.46-146.88 REPEATER HAS BEEN FUNCTIONING FOR THE LAST FOUR WEEKS OR SO. THE SYSTEM IS LOCATED AT A TEMPORARY LOCATION UNTIL TECHNICAL BUGS CAN BE STRAIGHTENED OUT. THE SYSTEM OPERATES CARRIER ACCESS ON AN "AT HOME" BASIS,, 5 TO 10 PM WEEKDAYS, AND 6 AM TO 10 PM WEEKENDS. POWER OUT IS 25 WATTS AND IS OPEN FOR GENERAL USE. USERS ARE REQUESTED TO ANNOUNCE THE TIME OF BEGINNING AND END OF USE FOR THE TAPE RECORDED LOG.

### THREE-FOUR (NOT TO BE CONFUSED WITH TEN-FOUR)

THE MOVE IN FM COUNTRY TO ADOPT 146,34 AS AN ALTERNATE SIMPLEX CHANNEL IS GAINING IMPETUS, EVEN THO THE MILWAUKEE AND MADISON SYSTEMS STILL MAINTAIN 34 INPUTS. IN THE MADISON SYSTEM BOTH 16 AND 34 ARE SCANNED WITH 16 HAVING PRECEDENCE, 34 IS MAINLY FOR BASE STATIONS. THE QUAD CITY AREA HAS A 34/94 SYSTEM. CARE MUST BE TAKEN WITH THE USE OF 34, ESPECIALLY WHEN MADISON MOVES TO ITS NEW SITE. IT WOULD SEEM AS THO THERE WERE BETTER CHOICES OF SIMPLEX CHANNELS WHICH WOULD PRECLUDE THE PROBLEMS.

### FIVE-TWO

TO THE NORTH FROM БЕЛОIT TO MADISON, 146,52 IS ENJOYED AS THE SECONDARY SIMPLEX FREQUENCY. 52 HAS BEEN GIVEN MUCH PUBLICITY LATELY FROM SOME POPULAR AMATEUR MAGS. MANUFACTURERS ARE BEING ENCOURAGED TO CRYSTAL THEIR SETS FOR 52 RATHER THAN 94 WHEN SOLD. ALTHOUGH MUCH PUBLICITY HAS BEEN GENERATED, LITTLE IS BEING EXPLAINED. THERE ARE FUNDAMENTAL REASONS BEHIND THE MOVE. WITH THE ATTEMPT TO STANDARDIZE REPEATERS TO 600 KHZ SPACING BETWEEN INPUT AND OUTPUT FREQS, STARTING WITH 146,01 AS AN INPUT, THE FIRST OUTPUT FREQ WOULD BE 146,61. AND WITH THE LAST OUTPUT FREQ ON 146,97, THE ASSOCIATED INPUT WOULD BE 146,37. THIS LEAVES ALL FREQS BETWEEN 146,37 AND 146,61 UNUSABLE FOR REPEATER INPUT OR OUTPUT, AND A BEAUTIFUL CHOICE FOR SIMPLEX.

220 MHz.

IN A RECENT POLL OF AMATEURS, WHEN ASKED IF THEY HAD EVER THOUGHT OF USING 220, THE MAJORITY REPLIED THAT THEIR LINEARS WORKED ON 220,.....VOLTS, SERIOUSLY, IN A MEETING OF REPEATER ORGANIZATIONS OUT EAST, A RESOLUTION WAS PASSED THAT THEY PUT REPEATER OUTPUTS ON 220 MHz BAND, AS WELL AS THEIR NORMAL OUTPUT FREQ, TO OCCUPY SOME OF THE  $1\frac{1}{4}$  METER BAND AND TRY TO STIR UP SOME ACTIVITY. SO FAR THERE IS ONLY ONE AMATEUR RIG AVAILABLE FOR 220 FM (TEMPO), BUT THE BIGGEST THING HOLDING BACK MORE ACTIVITY IS THE LACK OF AN EASY "PLUG IN THE CRYSTAL AND TUNE" CONVERSION OF COMMERCIAL SURPLUS GEAR, 220 AS IT STANDS COULD PROVIDE A BEAUTIFUL BAND TO TAKE THE OVERCROWDING IN METRO AREAS OFF TWO METERS. LET'S KEEP 220 MHz. FOR THE FUTURE.

OFF TO THE R.A.C.E.S.

W9ROM, HAVING VACATED 34/76, CAN NOW BE FOUND BELTING OUT THEIR FULL LEGAL GALLON SIGNAL ON 146.82, THE INPUT FREQ FOR THE RACES REPEATER. THE OCCASIONAL RE-REPEAT OF MILWAUKEE MOBILES (AND THE ALL TOO FREQUENT MILWAUKEE WEATHER FORECAST FROM W9ROM AUTOPATCH) CAN NOW BE HEARD IN FM COUNTRY. THE SITUATION HAS NO EASY SOLUTION. THE RACES FREQS ARE STATE ASSIGNED, AND THE 22/82 REPEATER PAIR USED BY MILWAUKEE IS A STANDARD USAGE, BUT, THE PROBLEM OF THE VERY BIG SIGNAL OF THE ROM SYSTEM 75 MILES AWAY CAPTURING THE REPEATER FROM A LOCAL RACES MOBILE SHOWS ITS HAND ALL TOO FREQUENTLY. IT CAUSED MANY HEADACHES DURING THE TWO "SEARCH FOR MISSING CHILDREN" MISSIONS AND THE FLASH FLOOD EMERGENCIES OVER THE PAST WEEKS. OTHERWISE, RACES IS MOVING ALONG WELL WITH PRESENTLY 20 MOBILE UNITS EQUIPPED ON THE REPEATER.

TALES FROM NEVER-NEVER LAND

LONG AGO, AND IN A FAR AWAY KINGDOM, THERE LIVED A GROUP OF ELVES. THERE WERE MORE ELVES THAT LIVED AROUND ONE ESTATE THAN ANY OTHER. THEY DECIDED TO PUT UP A NEW FANGLED GADGET HIGH ATOP THE CASTLE'S SPIRE TO MAKE THEIR VOICE HEARD THRU-OUT THE KINGDOM. THEY CALLED THEIR MAGIC BOX THE "OUTSTANDING ROYAL CONTRAPTION." IN NEARBY ESTATES OTHER ELVES PUT UP NEW FANGLED GADGETS JUST LIKE THE ELVES AT THE ESTATE TO THE EAST. OF COURSE, WITH MANY ELVES HOLLERING THRU THEIR MAGIC BOXES AT THE SAME TIME ONLY CONFUSION REIGNED. EVENTUALLY, A LARGE COUNCIL OF ALL THE ELVES WAS HELD, AND EVERYBODY WENT HOME TO CHANGE THEIR MAGIC BOXES SO THAT CONVERSING THRU THEM WAS UNIMPAIRED. THE "O-R-C" AS IT WAS KNOWN FOR SHORT, HAD AN EXTREMELY LOUD VOICE, BUT POOR HEARING. MANY, MANY ELVES, EVEN IN FAR AWAY KINGDOMS, WISHED THAT THE "OUTSTANDING ROYAL CONTRAPTION" WOULD EITHER HEAR BETTER OR TALK WITH A SOFTER VOICE, PREFERABLY THE LATTER. ONLY THEN WILL THE ELVES LIVE HAPPILY EVER AFTER.

"THIS IS FM COUNTRY" WAS CONCEIVED BY AND IS WRITTEN BY WB9EEH. IT IS NOT CONNECTED WITH THE ROCKFORD AMATEUR RADIO ASSN, BUT IS PUBLISHED IN THE HAM RAG AS A SERVICE TO FM'ERS AND OTHER INTERESTED AMATEURS... BESIDES I DIDN'T HAVE MUCH ELSE TO FILL THE PAGES OF HAM RAG. DE K9PAK, YE OLDE EDITOR-IN-CHIEF.

# YELLOW THUNDER HAMFEST '72

SATURDAY, MAY 27, 1972 AT THE DELLVIEW HOTEL  
LAKE DELTON, WIS., AT THE FAMOUS WISCONSIN DELLS

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★ ARPS SC MEETING ★ NAVMARCORPS MEETING  
★ VHF/REPEATER FORUM CONDUCTED BY  
MEMBERS OF THE MADISON AREA REPEATER  
ASS'N. ★ OTHER MEETINGS ★ LADIES ACTIVITIES

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EARLY BIRD PRIZE FOR REGISTRATION BEFORE  
MAY 15 - EDITORS & ENGINEERS HANDBOOK

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TALKIN STATION:  
WB9FDZ ON 3985 AND 146.94

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LARGE OUTSIDE SWAP SHOP AREA

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CASH BAR ONE TICKET COVERS ALL

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ENTERTAINMENT & PRIZES AFTER BANQUET

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INCLUDES FULL COURSE CHICKEN & HAM  
BANQUET 6:30 PM -- HAPPY HOUR AT 5:30

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Tickets: \$5.25 in advance - \$5.75 at the door. Make checks payable to the Yellow Thunder Amateur Radio Club, Inc. Mail your reservation to Rev. J.P. Anderson, WB9EWR, Rte. 1, Baraboo, Wis. 53913. Your reservation will be confirmed by return mail.

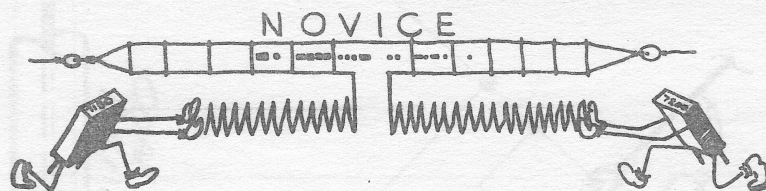
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Name \_\_\_\_\_ Address \_\_\_\_\_ City \_\_\_\_\_

State \_\_\_\_\_ ZIP \_\_\_\_\_ Make \_\_\_\_\_ reservations at \$5.25

each. My check in the amount of \_\_\_\_\_ is enclosed. If information

on Dellview accommodations is desired, check here \_\_\_\_\_.



WANT A CW MONITOR CHEAP AND DIRTY??? I FOUND A MODULE AT JAYTRONICS MANUFACTURED BY CARL CODOVER & Co., #CWM-1, \$3.50. ADD AN 8 OHM, SPEAKER, A 1½ VOLT BATTERY, AND A COUPLE OF FEET OF HOOKUP WIRE FOR A PICK-UP ANTENNA AND PRESTO,.. A MONITOR WITH NO CONNECTION TO THE RIG. ONE THING MAY BE OBJECTIONAL., THE MONITOR EMITS A RATHER UNPLEASANT BUZZING NOTE RATHER THAN A CLEAN TONE, BUT IF YOU PUT UP WITH THAT IT DOES A SATISFACTORY JOB.

IF YOU RECALL IN THE JANUARY HAM RAG I WROTE ABOUT THE VARIABLE CRYSTAL OSCILLATOR (VXO) FOR NOVICES, I HAVE ONE ON ORDER, MANUFACTURED IN CALIFORNIA, THEY SENT A CARD STATING THERE WOULD BE ABOUT A 30 DAY WAIT FOR DELIVERY. MAYBE THEY MAKE IT AFTER THEY GET MY MONEY! OH WELL, I'LL LET YOU KNOW HOW IT WORKS IN UPCOMING ISSUES.

DALE, WA9BWK, REPORTS 8 STUDENTS PASSED THE CW TEST AND ARE READY FOR THE WRITTEN PORTION IN THE RARA NOVICE SCHOOL. REMEMBER, THESE NEW NOVICES WILL BE LOOKING FOR INEXPENSIVE GEAR FOR THEIR FIRST RIG. LET HAM RAG KNOW IF YOU HAVE SOMETHING AVAILABLE (EVEN A STRAIGHT KEY IS GETTING HARD TO FIND) OR ANNOUNCE IT AT A MEETING. FOR THE NOVICE WHO IS READY TO STEP UP TO THE NEXT GRADE, ROCK VALLEY COLLEGE IS STARTING A TECH/GENERAL TRAINING COURSE, CALL THE COLLEGE, DIVISION OF TECHNOLOGY FOR INFORMATION AND TO REGISTER, OR CALL OR SEE VITO, K9UCM.

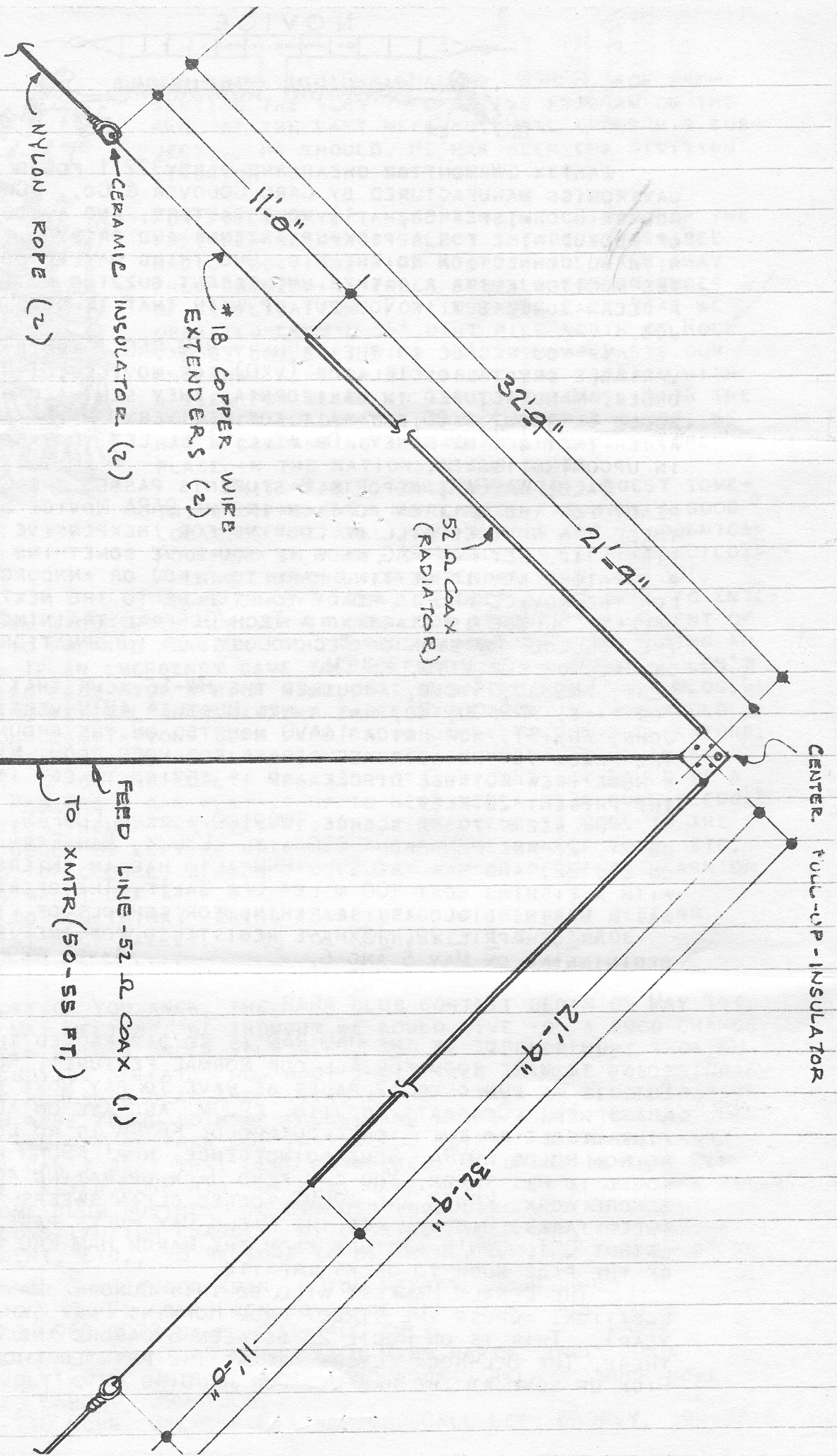
NEWS: WN9JAV, STEVE, ACQUIRED THE HW-16 XCVR THAT BUD, CHU, HAD FOR SALE. WN9HCL, ED, HAS A NEW HUSTLER 4BTV VERTICAL ON THE ROOF. JOHN, WN9IST, NOW HAS A 14AVQ MOUNTED ON THE GROUND, AND IS MOVING THE SHACK TO THE ATTACHED GARAGE FOR MORE ROOM. MIKE, 10G, HAS A HOME BREW ROTABLE DIPOLE AND IS TRYING TO GET IT UP HIGHER THAN THE PRESENT 23 FEET.

DX SEEMS TO BE SCARCE. WN910G WORKED LU9FAN, ROSARIO, ARGEN., ON 21.123 AND HHH HAD A QSO WITH LU6DJX, SAN FERNANDO, ARGENTINA, ON 21.132, AND HAS THE QSL. HHH ALSO HAD AN INTERESTING CONTACT WITH A FISHING BOAT 100 MILES OFF CALIF. THE OPERATOR WN6PIU/R2, WAS A MARINE BIOLOGIST SEARCHING FOR SCHOOLS OF FISH WITH SONAR.

AS OF APRIL 29, 15 HAVE REGISTERED FOR THE TECH/GENERAL CLASS BEGINNING ON MAY 5 AND 6. ....73 DE WN9HHH

THIS ISSUE OF THE HAM RAG IS SO JAM-PACKED THAT WE AREN'T GOING TO HAVE ROOM FOR ALL OUR NORMAL FEATURES, SORRYBOUTTHAT. BUT, IF WE RUN OVER 12 PAGES WE HAVE TO PAY MORE POSTAGE! HERE'S WHATS NEW: CONGRATS TO VITO, K9UCM, AND XYL ON ADDITION OF A PINK BUNDLE TO THE FIORE HOUSEHOLD. K6YRA IS NO LONGER A K6,.. HE NOW HOLDS W9YRA. SOME COINCEDENCE, HUH! K9UWN HAS AN SB-34 ADDED TO HIS SHACK. YOU CAN FIND JACK OPERATING 40 METERS MORNINGS BEFORE WORK. K9WTS AND W9LVT SCORED CLEAN SWEEPS IN THE LAST ARRL SWEEPSTAKES. DID YOU SEE THE FIELD DAY RULES PAGE, P.78, IN THE LATEST QST. UWN'S PICTURE FROM THE MARCH HAM RAG ADORNED THE TOP OF THE PAGE MUCH TO JACKS SURPRISE.

THE DEKALB HAMFEST WILL BE THIS SUNDAY, MAY 7TH. NOTE: NEW LOCATION: ACROSS THE STREET FROM HOPKINS PARK (WHERE IT WAS LAST YEAR). THIS IS ON ROUTE 23 BETWEEN SYCAMORE AND DEKALB. SEE YOU THERE. THE BEL-ROCK FLYERS ARE AT THE PRINTER AND WILL BE READY. PICK UP SOME AT THE HAMFEST FOR HANDING OUT.



DESIGN FREQ. 7.150 KH  
(40 MTRS)

FIG NO.1

K9UWN

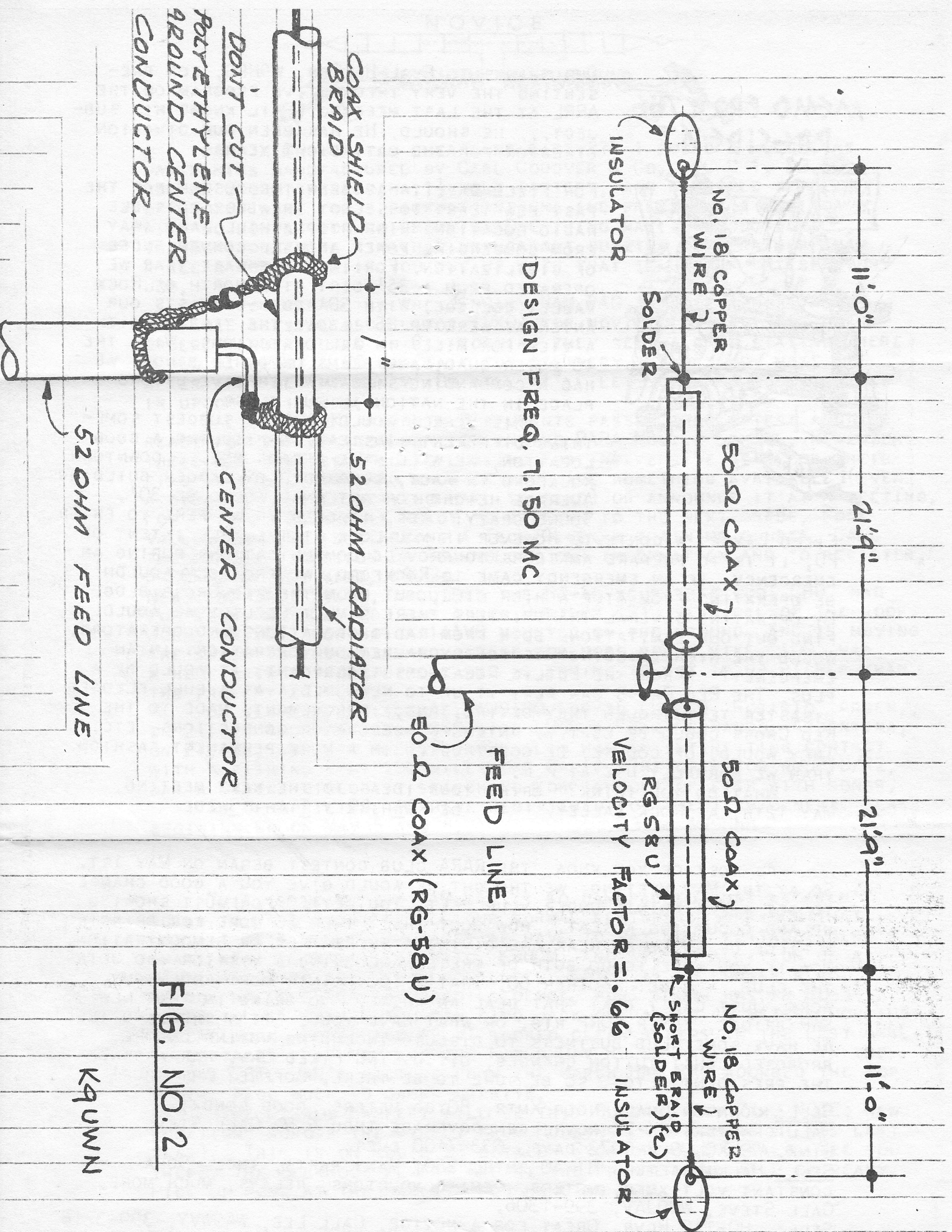
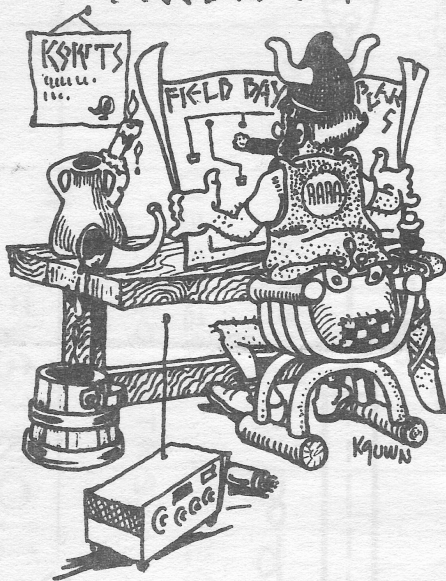


FIG. NO. 2

K9UWN

## MEMO FROM THE PRESIDENT



OUR THANKS TO PHIL HALLER, W9HPG, FOR PRESENTING THE VERY INFORMATIVE PROGRAM ON THE ARRL AT THE LAST MEETING. PHIL KNOWS HIS SUBJECT... HE SHOULD. HE HAS BEEN OUR DIVISION DIRECTOR FOR THE LAST EIGHT YEARS.

FOR FIELD DAY IT HAS BEEN THE CUSTOM FOR THE PAST FEW YEARS TO SELECT THE BEST POSSIBLE RADIO LOCATION, HIGH ATOP A HILL, AND AWAY FROM COMMERCIAL POWER AND ALL CONVENIENCES OF CIVILIZATION. FOR INSTANCE LAST YEAR WE OPERATED FROM A 35' DIRT PILE NORTH OF ROCK VALLEY COLLEGE. WITH 50' PUSH-UP MASTS OUR ANTENNAS WERE UP 85' ABOVE THE TERRAIN WITH A VIEW FOR MILES IN ALL DIRECTIONS. WITH THE 40 METER QUAD, AND BEAMS ON OTHER BANDS, WE HAD A COMMANDING SIGNAL WHICH GAVE US 3RD PLACE IN THE NATION IN OUR CLASS.

THIS YEAR I WOULD LIKE TO SUGGEST SOMETHING DIFFERENT. INSTEAD OF PITCHING A GOOD LOCATION, WE WILL HAVE A POOR ONE... DOWNTOWN ROCKFORD IN FACT, SURROUNDED BY LARGER BUILDINGS. AVERAGE HEIGHT FOR ANTENNAS WOULD BE 30'.

SOUND CRAZY? YES, IT DOES IF WE WERE TO ENTER FIELD DAY AS A CONTEST, HOWEVER IF YOU LOOK AT THE TRUE INTENT OF FD, IT IS TO PREPARE AMATEURS TO PROVIDE COMMUNICATIONS DURING AN EMERGENCY. IF AN EMERGENCY CAME TO ROCKFORD, WE PROBABLY WOULDN'T BE OPERATING FROM ATOP A HIGH HILL, BUT FROM THE RED CROSS BLDG. BY OPERATING SEVERAL TRANSMITTERS THERE SIMULTANEOUSLY WE WOULD FIND OUT OUR LIMITATIONS BOTH FROM RADIO OPERATIONS AND OPERATORS. WOULD THE HIGH BUILDINGS SERIOUSLY HAMPER OUR OPERATIONS IN AN EMERGENCY? FROM THE PUBLIC RELATIONS STANDPOINT, IT WOULD BE A PLUS. THE RED CROSS CAN PLAY IT UP TO NEWS MEDIA AS A FULL FLEDGED DISASTER TEST SHOULD THEY DESIRE. AND, IMPROVEMENTS MADE TO THE RED CROSS COULD BE LEFT... ANTENNAS, GENERATOR CONNECTIONS, ETC. THEY WOULD, OF COURSE, BE CONSTRUCTED IN A MORE PERMANENT FASHION THAN WE NORMALLY USE AT F.D.

WHAT DO YOU THINK? BRING YOUR IDEAS TO THE NEXT MEETING, MAY 12TH, AT ROCK VALLEY. DE K9WHISKEY TIGHT SWEDE

AS MOST OF YOU KNOW, THE RARA CLUB CONTEST BEGAN ON MAY 1ST. SO AT THE MAY MEETING, WE THOUGHT WE WOULD GIVE YOU A GOOD CHANCE TO GET A FEW POINTS UNDER YOUR BELT. YOU GET 50 FOR JUST SHOWING UP AND OCCUPYING A SEAT.. HOW BOUT THAT? THEN 50 MORE FOR BRINGING A PIECE OF HOMEBREW GEAR AND GIVING A SHORT TALK OR DEMONSTRATION. NOW IF YOU WERE TO DO BOTH OF THESE, AND BRING A VISITOR WHO JOINS THE CLUB, YOU GET ANOTHER 60. THAT'S 160 POINTS FOR HARDLY ANY WORK, JUST CAN'T BEAT THAT DEAL ANYWHERE. SO BRING IN THAT NEW SWR BRIDGE, KEYS, QRP RIG, OR WHAT HAVE YOU.. IT'S SHOW AND TELL! WE HAVE SOME CLUB BUSINESS TO DISCUSS INCLUDING VOTING ON THE PROPOSED CONSTITUTION CHANGES, DISCUSSING FIELD DAY, HARRASSING THE PRESIDENT, ETC., SO BE SURE TO BE THERE. COFFEE? WHY SHUR!

SELL: JOHNSON CHALLENGER XMTR, 80TO6 METERS, GOOD CONDX;  
HALLICRAFTERS SX-71 RCVR, GEN. COVERAGE THRU 6 M. CALL STEVE  
LINK, W9LX0, 962-9972 DAYS, 633-7400 EVES.

SELL: HALLICRAFTERS HT-40 XMTR, \$50; MANY PARTS, INCL. SOLA  
CONSTANT VOLT XMFR, METERS, SEMI-CONDUCTORS, RELAYS, MUCH MORE.  
CALL STEVE, WN9JAV, 399-1306.

SELL: HQ-110 RCVR. GREAT FOR A NOVICE. CALL LEE, WA9WVY, 399-3716

EASY ANTENNAS YOU CAN MAKE

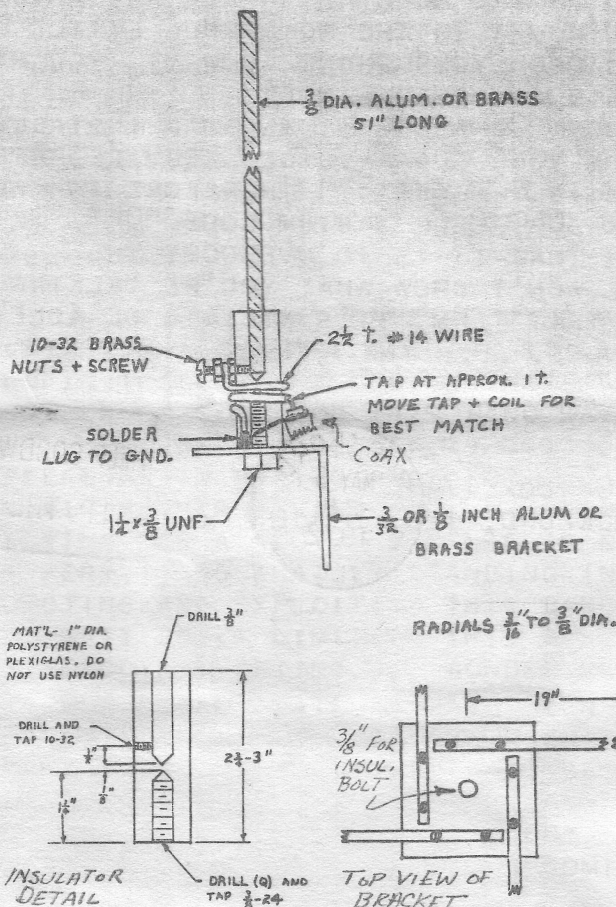
\*\*\* COAXIAL DIPOLE OR INVERTED "V"\*\*\* THE FOLLOWING DATA IS IS ON THE DESIGN AND CONSTRUCTION OF AN INEXPENSIVE COAXIAL DIPOLE SYSTEM WHICH OFFERS SOME ADVANTAGES NOT INHERENT IN THE FAMILIAR DIPOLE, OR HERTZIAN ANTENNA. FIRST, THE ANTENNA IS BROADBAND, SIMILAR TO THE FOLDED DIPOLE DESIGN, BUT UNLIKE THE FOLDED DIPOLE, A 50 OHM FEEDLINE CAN BE USED WITHOUT THE 4 TO 1 BALUN USED TO MATCH THE 300 OHM FEED IMPEDENCE NORMALLY DEMANDED BY THE FOLDED DIPOLE. SECONDLY, WHEN CAREFULLY CONSTRUCTED TO PROPER DIMENSIONS FOR A CENTER BAND FREQUENCY, IT CAN BE USED ACROSS THE ENTIRE PHONE AND CW BAND WITHOUT OBJECTIONAL SWR, USUALLY NOT EXCEEDING 1.7 TO 1. THIRDLY, IT DOES NOT REQUIRE ANY SPACE THAN A DIPOLE, AND ALSO WORKS WELL IN THE POPULAR INVERTED "V" FORM IF THE INSTALLED ANGLE IS NO LESS THAN 90°.

THE FIGURES ON THE FOLLOWING PAGES PROVIDE SUFFICIENT DATA TO BUILD THE COAXIAL ANTENNA FOR 40/15 METER USE. BY ADJUSTING DIMENSIONS, THE ANTENNA COULD BE CONSTRUCTED FOR OTHER BANDS ALSO.

WE WILL BE HAPPY TO ANSWER ANY QUESTIONS YOU MAY HAVE ON THE CONSTRUCTION OF THE ANTENNA. BUT, WE MAKE NO CLAIM TO THE DESIGN OF THE ANTENNA, ONLY ITS TRANSLATION. THE DESIGN WAS A LABORATORY PROJECT AT M.I.T. DE K9UWN

\*\*\*A 3 D.B. GAIN GROUND PLANE FOR 2 METER F.M.\*\*\* THIS ANTENNA

WILL GIVE NOTICEABLE IMPROVEMENT OVER A QUARTER-WAVE GROUND PLANE, BUT RETAIN THE OMNI-DIRECTIONAL CHARACTERISTICS IMPORTANT IN FM WORK. THE RADIATING ELEMENT SHOULD BE THICK WALL OR SOLID ROD. CHECK YOUR LOCAL HARDWARE STORE. THE BASE INSULATOR IS PLEXIGLASS ROD. CHECK AT A GLASS CO., OR H&H FOR THIS ITEM. THE BEST MATCH IS OBTAINED BY MOVING THE TOP AND SQUEEZING THE COIL WHILE CHECKING THE SWR. BE SURE YOU USE AN SWR BRIDGE THAT IS GOOD ON VHF FREQS. TO CHECK, CONSTRUCT A DUMMY LOAD USING A 2 WATT 47 OR 51 OHM RESISTOR SOLDERED TO A COAX CONNECTOR. IF THE SWR ON THIS RESISTOR IS LESS THAN 1.3 TO 1, THE BRIDGE IS PROBABLY OK. SAVE THE RESISTOR. IT MAKES A GOOD DUMMY FOR POWER UP TO 10 WATTS INTERMITTANTLY. AFTER THE ANTENNA IS COMPLETED, SPRAY IT WITH CLEAR PLASTIC SPRAY, CONCENTRATING ON THE BASE, TO PROTECT THE CONNECTIONS. ALSO, TAKE A PLASTIC BOTTLE OF THE PROPER SIZE, PUNCTURE A SMALL HOLE IN THE BOTTOM, INVERT, AND FIT OVER THE VERTICAL RADIATOR. THE HOLE SHOULD BE SMALL ENOUGH TO PROVIDE A SNUG FIT. PUSH THE BOTTLE ALL THE WAY DOWN OVER THE COIL AND CONNECTIONS. TRIM THE BOTTLE AS NECESSARY. THIS W



PROTECT THE COIL AND BASE FROM ICE AND WATER. BE SURE TO USE RG-8U FOR FEEDLINE. AT THESE FREQUENCIES, RG-58U IS USEFUL ONLY AS A DUMMY LOAD. ... STOLEN FROM NAVY MARS SPARKS.

THE ARRL WRITES: ONE OF THE BENEFITS AVAILABLE TO ARRL-AFFILIATED CLUBS IS A SPECIAL LEAGUE MEMBERSHIP OFFER. HERE ARE THE DETAILS:

THE INDIVIDUAL CLUB MEMBER PAYS THE CLUB TREASURER THE ANNUAL ARRL DUES OF \$6.50, WHICH INCLUDES LEAGUE MEMBERSHIP AND THE SUBSCRIPTION TO QST. THE OFFICER FORWARDS \$6.00 FOR EACH MEMBERSHIP TO LEAGUE HEADQUARTERS, RETAINING \$.50 FOR THE CLUB TREASURY.

EFFECTIVE JULY 1ST, DUES INCREASE TO \$7.50. THE SPECIAL CLUB RATE WILL BE \$7.00. THE CURRENT RATE OF \$6.00 TO THE CLUB WILL REMAIN IN EFFECT ON ALL ENTRIES RECEIVED AT HEADQUARTERS PRIOR TO JULY 1ST.

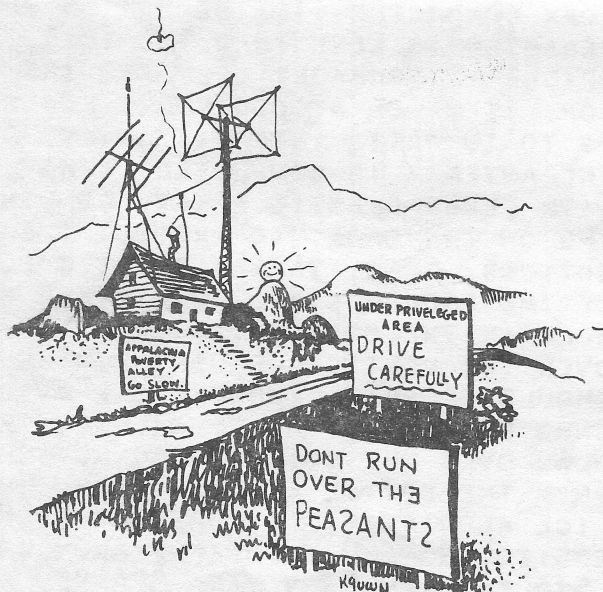
SO, IF YOUR MEMBERSHIP EXPIRES SOON, SEE LELAND, WA9WVY, TO GET RENEWED BEFORE THE DUES GO UP. REMEMBER LEE WILL NEED TO KNOW WHEN YOUR PRESENT MEMBERSHIP/SUBSCRIPTION EXPIRES WHEN HE SENDS IN THE RENEWAL.

FOR YEARS THE TELEPHONE COMPANIES FOUGHT THE ATTACHMENT OF ANY DEVICE TO THE LINES, INCLUDING PHONE PATCHES. THEN THE SUPREME COURT IN THE FAMOUS "CARTERPHONE" DECISION CHANGED ALL THAT. THIS DECISION STATED SIMPLY THAT SO CALLED "FOREIGN" DEVICES CAN BE ATTACHED TO THE PHONE LINES BY THE CUSTOMER PROVIDING THE DEVICE DOES NOT AFFECT TELEPHONE COMPANY EQUIPMENT OR SERVICE TO OTHER CUSTOMERS. THIS OPENED THE DOOR FOR PEOPLE TO INSTALL THEIR OWN PHONES OR OTHER DEVICES INCLUDING PHONE PATCHES. IN FACT, MANY LARGE BUSINESS FIRMS ARE REALIZING BIG SAVINGS BY BUYING THEIR OWN SWITCHBOARDS, PHONES, ETC.

FOR THE PHONE PATCHER, THE TELEPHONE COMPANIES REQUIRE HIM TO HAVE A COUPLER INSTALLED TO WHICH THE PHONE PATCH IS THEN CONNECTED. THIS COUPLER CONSISTS OF A COUPLE OF DIODES, A COUPLE OF CAPACITORS, A CHOKE, AND A RESISTOR OR TWO. AMONG OTHER THINGS, IT WILL PREVENT HIGH LEVEL AUDIO FROM BEING FED DOWN THE PHONE LINE, AND IT FILTERS OUT AUDIO IN THE 2600 HZ. RANGE WHICH THE PHONE COMPANY USES FOR SIGNALLING. WITH THE WONDERFUL LITTLE GADGET INSTALLED BY AND RENTED FROM YOUR PHONE COMPANY, YOU MAY NOW LEGALLY PHONE PATCH IN THEIR APPROVED MANNER.

CHARGES ARE IN THE ORDER OF 50¢ A MONTH, PLUS AN INSTALL CHARGE. WHEN YOU ORDER ONE FROM YOUR SUGAR-VOICED SERVICE REPRESENTATIVE, THE COMMON REACTION IS "A WHAT??" THEREFORE ASK FOR A WESTERN ELECTRIC VOICE COUPLER 30A, BELL SYSTEM CODE "QK". IF THERE IS STILL A PROBLEM, INFORM HER THAT IT IS TO OVERCOME THE "INTERFACE PROBLEM." SHE STILL WON'T KNOW WHAT YOU'RE TALKING ABOUT BUT SINCE THEY INVENTED THAT TERM. IT'S NICE TO BE ABLE TO STRIKE BACK USING THEIR OWN RULES. .... TNX ARNS

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