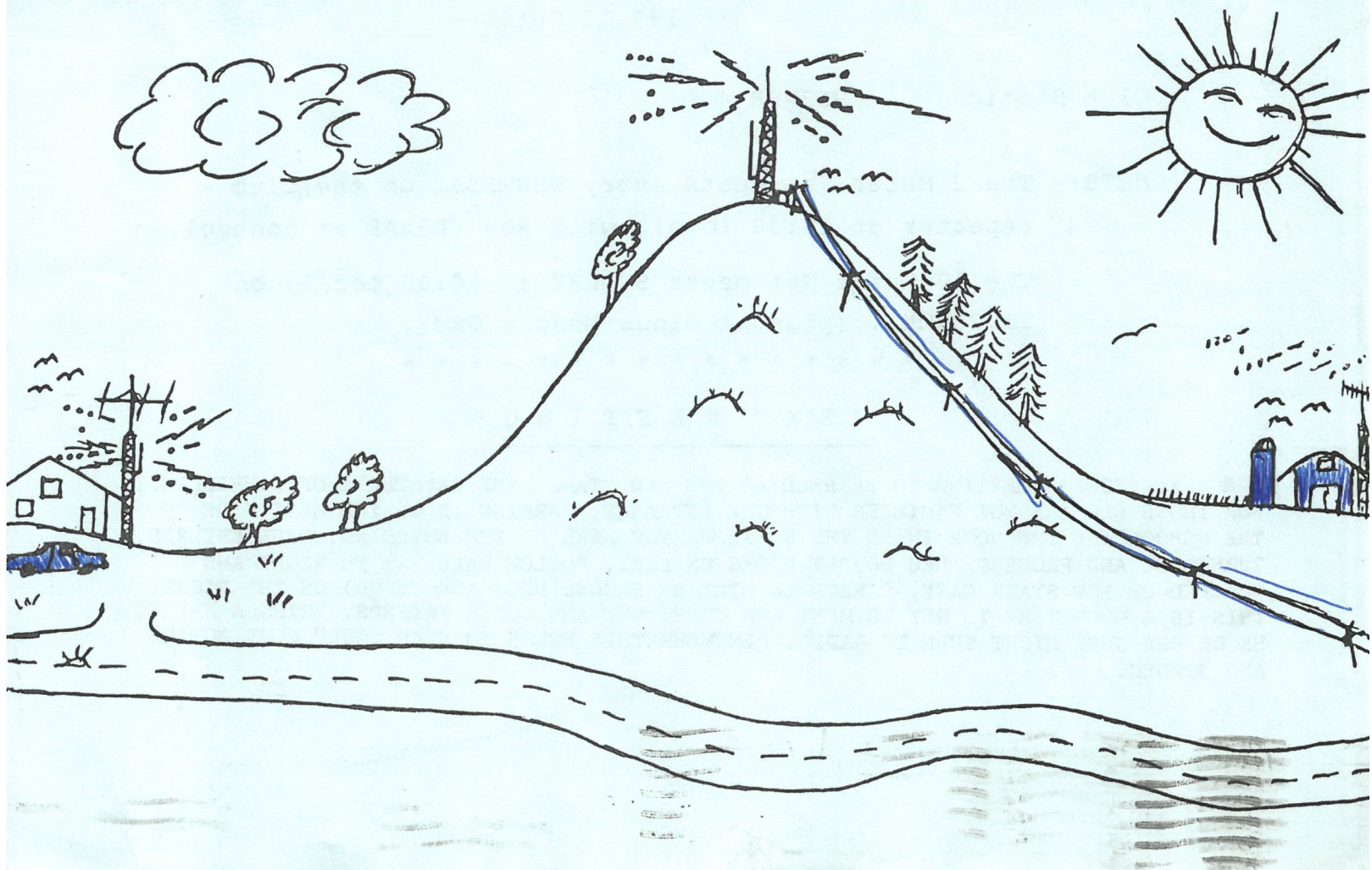


FROM: THE NORTH SHORE RADIO CLUB INC.,
P.O. BOX 171, OSHAWA, L1H 7L1.



May

VE3CRK
DAY, Ralph
454 Holcan Ave.
OSHAWA, Ontario
L1G 5X6



" S P A R K S "

THE NORTH SHORE AMATEUR RADIO CLUB INC.

MAY 1982 EDITION

OFFICERS & EXECUTIVE

Directors	Colin Bell	VE3CEU	723-7842
	Bob Elston	VE3LLE	725-5124
	Bob Leet	VE3LLZ	725-1236
	Mac McFarlane	VE3IKG	723-8484
	Hank Verwoerd	VE3FHV	571-0863

President	Bob Elston	VE3LLE	725-5124
Vice-Pres.	Mac McFarlane	VE3IKG	723-8484
Treasurer	Hank Verwoerd	VE3FHV	571-0863
Secretary	Colin Bell	VE3CEU	723-7842
Registrar	John Pluister	VE3FGL	655-4269
Get-Well-Cards	Ted Brant	VE3ADD	668-3561
Editor	Doug Smith	VE3MKC	705-786-2086
Tech Editor	Phil Leith	VE3LNE	728-8167

+ + + + + + + + + + + + + + +

Club Repeater: VE3OSH 147.72 In.
147.12 Out.

Club Station: VE3NSR

NETS:- The 2 Meter Net meets every THURSDAY on the club
repeater at 19:30 local, with Roy VE3AAF at control.

The 10 Meter Net meets SUNDAY at 10:00 local, on
28.200Mhz. (plus or minus beacon QRM).

* * * * *

N E X T M E E T I N G

THE NEXT REGULAR MEETING TO BE HELD AT THE OLD STAND, THE CAFETERIA OF O'NEILL C.I.
FOR THOSE WHO ARE NOT FAMILIER WITH THE ENTRANCE, PARKING IS ON THE EAST SIDE OF
THE SCHOOL AND THE DOOR IN ON THE SOUTH EAST CORNER OF THE BUILDING. ONCE ENTERED,
TURN LEFT AND PROCEED THRU DOUBLE DOORS ON LEFT. FOLLOW HALL WAY TO RIGHT AND
PROCEED UP LOW STAIR CASE, CAFETERIA WILL BE SECOND DOOR (OR THIRD) ON THE RIGHT.
THIS IS A GOOD TIME TO GET TO MEET AND GREET NEW AND OLDER FRIENDS. BRING A FRIEND,
HE OR SHE JUST MIGHT TURN TO RADIO. REMEMBER THIS HELPS TO KEEP "OUR" CLUB ACTIVE
AND STRONG.

ED.

"SPARKS"

NEWS AND VIEWS

WELL HERE IT IS, MAY AGAIN AND ALONG WITH THAT COMES "OLD TIMERS NIGHT". THE OLD TIMERS ARE REQUESTED TO BRING ALL THE PAST PICTURES YOU HAVE AS WELL AS YOUR OLD MEMENTOS AND SHOW OUR NEWER HAMS WHAT KIND OF HISTORY HAS PASTED BEFORE US. SO DON'T SHRINK OUT EVERYONE HAS SOMETHING OF INTEREST TO SOMEONE.

PLEASE TAKE NOTE THAT PAUL DALE HAS A NEW TELEPHONE NUMBER AS WELL AS THE OLD (ONE OF THE JOYS OF HAVEING LOTS OF KIDS EH. PAUL) THE NEW NUMBER IS 579-2877. THIS IS THE ONE TO USE IF CALLING PAUL AS THE ORIGINAL NUMBER WILL USUALLY BE TIED UP.

DON (HYW) BRINGS TO LIGHT THE FACT THE ANNUAL CANOE RACE IS STILL IN NEED OF CHECK POINTS AND HELP WITH THE CLUB STATION AT THE FINISH IN PORT PERRY. CONTACT DON AND THESE AN ACTIVITY'S WILL ONLY SUCCEED WITH YOUR HELP.

MAL (VE3KXH) IS ALSO IN NEED OF VOLINTEERS AND FOR THOSE WHO JUST DON'T LIKE WATER SPORTS HERE'S ONE ON LAND. MAL REQUIRES 2 METER OPERATORS ON SAT. OR SUN. OF THE 26th. 27th of JUNE. THE COMMUNICATIONS ARE FOR A SOCCER MEET AND YOU WOULD BE REQUIRED FOR A SPELL BETWEEN THE HOURS OF 9 TILL 4 OR ALL OF THEM IF YOU COULD AFFORD THE TIME.

HANK WAS TO GIVE THE CLUB A ROUGH IDEA OF THE BUGET _____. THANKS HANK AND NOW ON TO OTHER THINGS. I KNOW YOU'LL MANAGE OKEY.

WELL WELL, HERE IS SOME DX FROM FARMBOROUGH ENGLAND. THIS CLUB SENDS IT GREETINGS FROM AROUND THE WORLD TO OUR CLUB. THERE MEETING IS THE DAY AFTER OURS.

THIS TRAFFIC WAS BROUGHT IN BY (do i have to say) DON VE3HYW.

THANKS DON. Ed.

FIELDAY FIELDAY FIELDAY !!! WHERE ARE THE VOLINTEERS???? ALL THE FUN AND GOOD TIMES JUST DON'T HAPPEN, THEY ARE MADE TO BE SO THAT THE OLD TIMERS AND NEW TIMERS WILL HAVE SOMETHING TO ADD TO OUR CLUB HISTORY. EVEN IF YOU THINK YOU HAVE DONE YOUR SHARE REMEMBER MANY HANDS MAKE LIGHT WORK WHILE A FEW MAKE THE LOAD HEAVY AND THOSE FEW WOULD HAVE LONG HOURS OF LABOUR. SO IF YOU CAN FIND ANY TIME DAY OR NIGHT STEP FORWARD AND GIVE THE CLUB A COUPLE OF HOURS.

Ed.

AS OF THIS DATE OUR MEMBERSHIP IS 127 PD. THIS IS DOWN FROM LAST YEARS 131 (81) AND 150 (80). WHY NOT TRY AND SEE IF YOU CAN FIND SOME HAM'S OR SWL'S TO JOIN OUR RANKS.

THANKS GO TO GERALD ROBITAILLE AND COMPANY WHO GAVE THERE TIME TO PUT ON A VERY FINE DEMONSTRATION OF THE "APPLE II COMPUTER" MANY QUESTIONS AND ANSWERS CROSSED THE TABLE

thanks Ed.

NOTE: BEFORE APPLYING FOR WAS PLEASE SEND FOR CD-217, THE WAS APPLICATION

(applicant's call)

| | Call | Date | Band | Mode | |
|------------------|------|------|------|------|--|
| Alabama | | | | | |
| Alaska | | | | | |
| Arizona | | | | | |
| Arkansas | | | | | |
| California | | | | | |
| Colorado | | | | | |
| Connecticut | | | | | |
| Delaware | | | | | |
| Florida | | | | | |
| Georgia | | | | | |
| Hawaii | | | | | |
| Idaho | | | | | |
| Illinois | | | | | |
| Indiana | | | | | |
| Iowa | | | | | |
| Kansas | | | | | |
| Kentucky | | | | | |
| Louisiana | | | | | |
| Maine | | | | | |
| Maryland (D. C.) | | | | | |
| Massachusetts | | | | | |
| Michigan | | | | | |
| Minnesota | | | | | |
| Mississippi | | | | | |
| Missouri | | | | | |
| Montana | | | | | |
| Nebraska | | | | | |
| Nevada | | | | | |
| New Hampshire | | | | | |
| New Jersey | | | | | |
| New Mexico | | | | | |
| New York | | | | | |
| North Carolina | | | | | |
| North Dakota | | | | | |
| Ohio | | | | | |
| Oklahoma | | | | | |
| Oregon | | | | | |
| Pennsylvania | | | | | |
| Rhode Island | | | | | |
| South Carolina | | | | | |
| South Dakota | | | | | |
| Tennessee | | | | | |
| Texas | | | | | |
| Utah | | | | | |
| Vermont | | | | | |
| Virginia | | | | | |
| Washington | | | | | |
| West Virginia | | | | | |
| Wisconsin | | | | | |
| Wyoming | | | | | |

may.

*** TECHNICAL SECTION ***

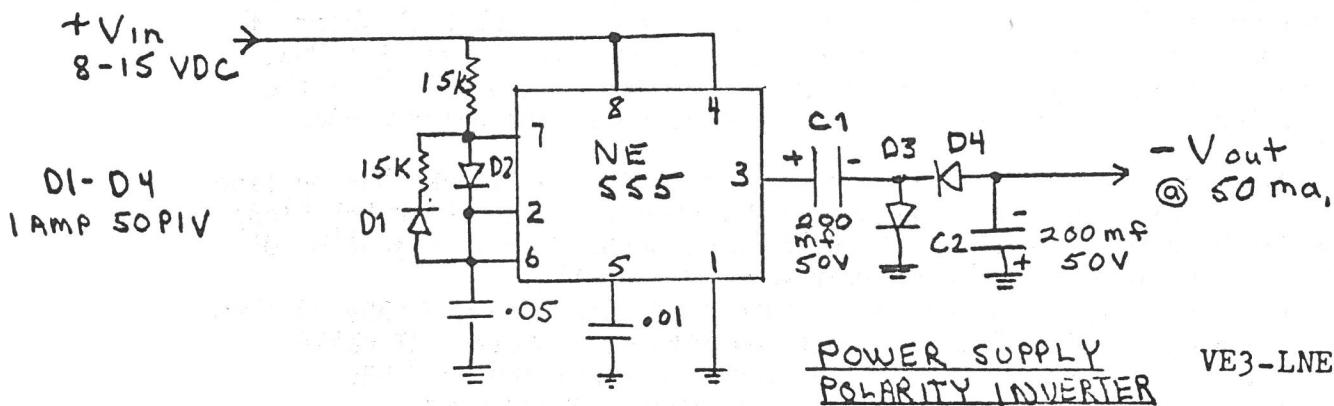
First I will give you the answers to last months defective circuits. If you guessed the diode as the culprit in the 160 volt supply your right. The Peak Inverse Voltage (PIV) in a capacitor input supply is $2 \times V_{\text{peak}}$ or $2 \times 160 = 320$ volts. The 200 PIV diode was shorting under stress and applying A.C. across the capacitor causing it to pop. The amplifier circuit had a coupling capacitor missing between input transformer T1 and base of Q1. Q1's bias was being shunted to ground by T1.

OK enough of my problems. This month, a simple polarity inverter circuit which will come in handy in op-amp and digital circuits. Many of these circuits require both plus and minus power supplies. Often only a single power supply will be available, especially when operating mobile. This circuit will accept a positive supply of 8 to 15 volts and produce a negative supply of about 2 volts less than the positive supply.

The 555 timer is connected as a square wave oscillator, with a symmetrical square wave appearing at PIN 3. The 15K resistors, and .05 capacitor determine the square wave frequency which is not critical.

C1, C2, D3 and D4 performs the polarity inversion to provide a minus supply capable of delivering about 50 m.a.

Keep this circuit on file, it could come in handy for your next mobile project.



Stacked Quads for 2-meter FM

I found the following quad arrangement inexpensive to build, easy to tune, and light enough for my TV rotator.

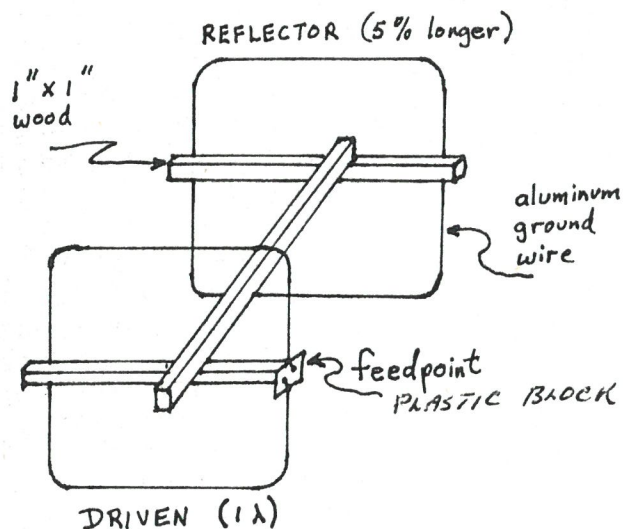


Figure 1. Single Quad

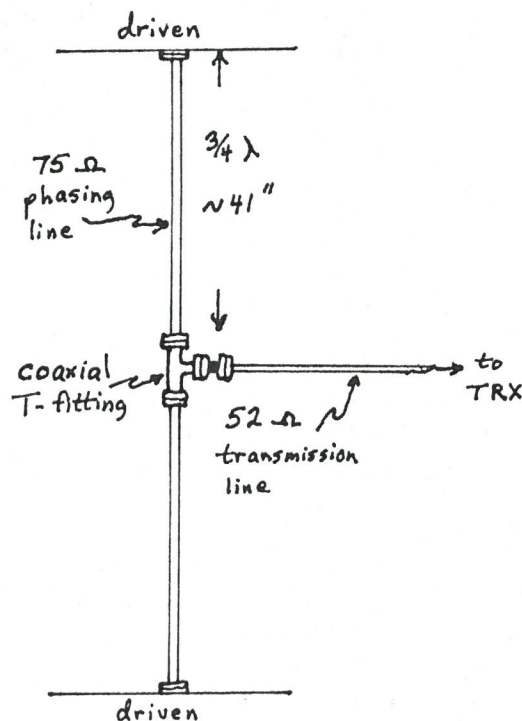


Figure 2. Phasing Harness.

I used SO-239 UHF connectors at the feedpoints and bolts on the frame so that I could dismantle it for easy transportation and adjustment. Since the electrical length of each loop tends to be shorter than actual length, it's important to be generous in measuring the loops and cut back later if necessary to resonate the quad at the desired frequency. I used 144 MHz, which gives a driven element about 83 in. and reflector about 87 in.; the electrical length is indeed shorter; the quad actually resonated closer to 146 MHz.

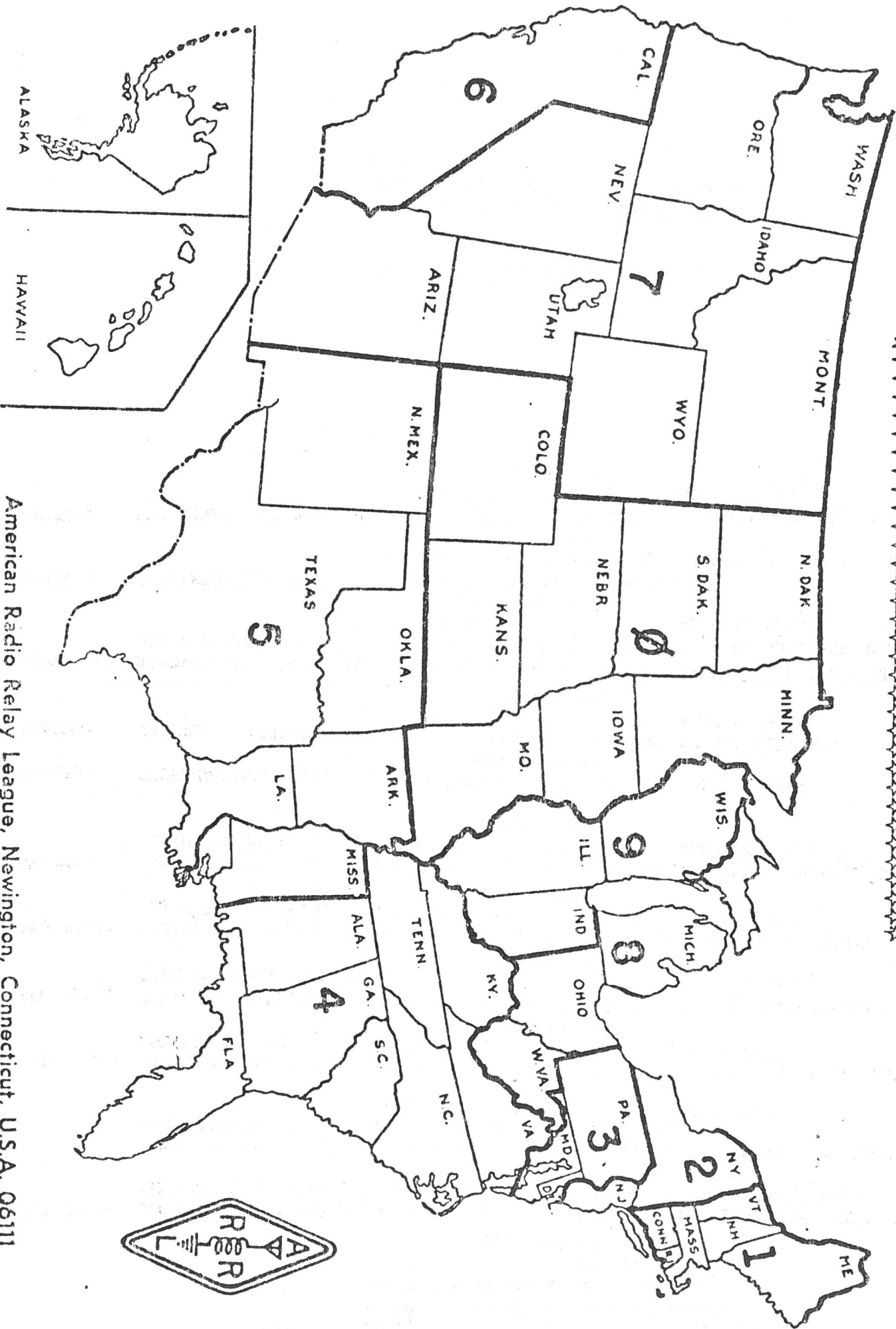
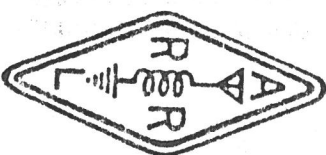
Each quad is tuned separately by connecting the 72-ohm phasing line through an SWR bridge to a transmitter, and then moving the reflector along the boom for best SWR, about 0.15 to 0.25 wavelength. A slight angling of the reflector toward the feedpoint improved SWR as well.

I stacked the two quads on the same mast rather than arranging them side by side because of my limited tower and rotator capacity for extra weight and wind resistance. The bay spacing is minimum one-half wave between adjacent loop sides, or three-quarter wave between booms.

Remember to mount the quads with feedpoints in the side for vertical polarization. The quad has excellent gain and a good, flat match across the band.

Lawrie Gulston VE3IKD

ARRL WAS MAP



American Radio Relay League, Newington, Connecticut, U.S.A. 06111

SELL BUY SWAP

FOR SALE: COPE 1030 TERMINAL USED CURRENTLY AS PRINTER FOR AN "EXIDY SORCERER" MPU
INTERFACE IS PARALLEL. COMES WITH 6 (SIX) IBM GOLF BALL TYPE ELEMENTS.

COPE 1030 TERMINAL USED WITH RADIO SHACK MODEL I MPU. SERIAL INTERFACE.
NEEDS MINOR REPAIR. C/W 2 GOLF BALL TYPE ELEMENTS.

CONTACT ALFRED BENDEL. 416/576/4839.

FOR SALE: MODEL 15 TELETYPE C/W DEMODULATOR. ALSO G.E. 2 METER PROG. LINE C/W OSH, RPT, AND
147.520 XTALS. CONTACT RANDY, VE3MUR, 416/576/4577

FOR SALE: TRI-BAND TRANSCEIVER. EICO 735. EXCELLENT FIRST RIG. 100 WATT OUT ON 80/40/20M.
THIS ONE DOES NOT DRIFT. MAKE OFFER TO JACK AT 416/725/9464.

FOR SALE: YAESU 207R, C/W DC & AC CHARGER, BATTERIES ETC. \$450.00. ALSO MOTOROLA HT 220S
(2) @ 250.00 EACH CONTACT PHIL AT 416/655/4069.

WANTED: SHARP CW XTAL FILTER, AUDIO FILTER, OR "Q" MULTIPLIER TYPE, TO BE USED WITH
HEATH COMANCHE. CALL BERNARD FERRIS AT 416/668/6177.

WANTED: EXTERNAL VFO, TUNING 6 thru 8 Mhz. CALL MOE AT 705/277/2984.

WANTED: TELETYPE MACHINES. ANY TYPE OR MODEL. SET YOUR PRICE AND CALL ME.
PHIL AT 416/655/4069.

FOR SALE: DUMMY-LOADS. QUART SIZE, FOR UP TO 200 BIG WATTS. THESE UNITS ARE FILLED WITH SPECIAL
OIL AND CAN BE HAD FOR ONLY 18.00 OR IF YOU GO WITH A FRIEND 2 FOR 30.00 DOLLARS

CALL MAC AT 416/723/8484

WANTED: 3 ELEMENT 10 OR 11 METER BEAM IN REASONABLE REPAIR.

CALL GARY VE3EPY AT hm. 416/723/1210 or bz. 416/683/8200 /226

WANTED: HALLICRAFTERS MODEL HA-16 VOX CONTROL UNIT WORKING OR NOT EVEN JUST THE SHELL

CALL DOUG COLLECT AT 705/786/2086.

THIS SPACE IS NOW AVAILABLE DUE TO
CRAMMING

ALSO IF ANY OF THE ABOVE ITEMS ARE
NO LONGER AVAILABLE WOULD YOU PLEASE
INFORM ME.

ED.