

June, 1973 Issue.

GCARC-VIF Page.

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John White, WA2MEM
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Editor:
YL Page (Les Belles)
Contest Corner
Ham Interview
Net News
ARRL Bulletines, etc.
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Doug Gehring, WA2KPD
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Ken Newman, W2FBF
Harry McCormick, WA2SEA
Jack White, WA2MEM
Della Parker, W2AFZ
John Stull, WB2JZX
(Call lost in QRN)
Jim Mauro, WA2DNL
Rick Carter, WA2CLS
Bill Shaw, WB2PVI

CLUB NETS.

6M AREC-----50.9-----Sundays-3 P.M. Local time.
10M Rag Chew-----23.3-----Fridays-9:30 P.M. Local time.
Novice AREC-----21.115-----Mondays-3:30 P.M. Local Time.
Friendship-----7.265-----3rd Sunday-1:00 P.M. Local.

CLUB MEETING. JUNE 6, 3 P.M., AT THE CLUB RCOM

QRZ de W2SUA

One of the most difficult jobs our club has to offer is Editor of our club newspaper. The chief pilot is Doug Gerhing, WA2NPD, and I can assure you he is a very competent and persistent fellow. He has to be or we could never publish a paper. Since he is constantly on the prowl for material it gives me an opportunity to promote my favorite ham radio pastime, working DX.

Contrary to those who think the DX bands are dead, let me assure you the bands have been experiencing some great openings. Here tonight on 14 Mc., JY, MP4, 4X4, Numerous Russians and Europeans were heard. All continents were workable throughout the day. Several boys from the Persian Gulf told me 10 was open.

Speaking of working DX-our club DX champ, Kenny, W2FBB, did it again ! He won the club DX contest trophy - nailing up his 3rd consecutive victory. Hearty congratulations are in order- he is a real champion, no question about it !

There have been several recent DX-peditons-XF4, Revilla Gigeo and SV Mt. Athos to mention a few. Athos was given DXCC status and is in great demand. Others are planned for the near future.

So, when you pass the shack, stop in, listen around, check your favorite DX band-you might be pleasantly surprised.

"Shorty"

PROGRAM 4 JUNE 6th

Should be a good one! Mr. Ron Hasscup, of D&R Radar Service Co., will present a talk and demonstration on the latest police radar (Decatur Co.) equipment. We have invited (by letter) all of the County Police Chiefs and Commissioners to attend our meeting in order to hear this program-so we may have a few extra guests (get a few extra donuts, John). Final FD plans will be announced, so better plan not to miss this particular meeting. Incidentally, better plan to drive carefully to the meeting (the "fuzz" may be pretty thick around Pitman that night) and don't get caught in any radar trap on the way over.

CLUB PICNIC-JULY 15th

Co-chairmen John, WB2GKH, and John, WA2MEM, announce the annual picnic will be held as usual at Lake Garrison on Sunday, July 15th starting at about 10-11 A.M. Price per family will be \$1.50, same as last year, and tickets will be available at the June 6th meeting or at the Lake Garrison gate. So reserve that date now and see if we can't beat the 50 plus attendance we had last year.

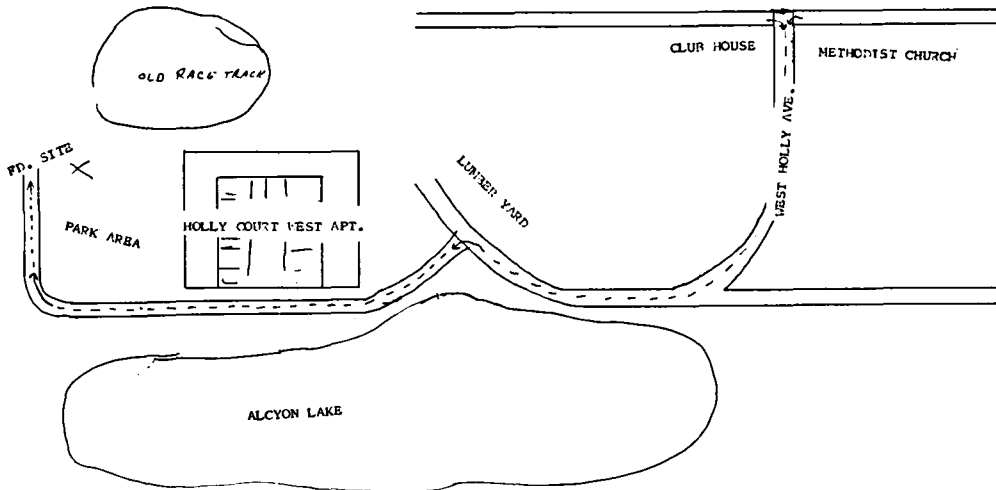
FIELD DAY

Chairman Rick, WA2CLS, announces the following band chairmen

for this year:

30 M--Ken, W2FBB.
40 M--Doug, WA2NPD.
20 M--Bill, WB2FIF.
6 M--Tom, WA2MFS; Jack, WA2MEM.
2 M--Wayne, WA2DBS.
Novice Jim, WN2GJH; Mark, WN2CSG.

FD starts promptly at 1 P.M., EDT, on June 23rd and runs for 24 hrs. Sign up for a trek on the band of your choice now! We want every club member participating! If you are too rusty with the key or mike, by all means help set-up (morning of the 23rd) and/or take down (P.M. of the 24th). The below map will help you find the place. See you on the 23rd.



NEW MEMBER JOINS UP!

Welcome into the fold Wayne Welsh, WA2DBS, who hails from Woodbury. Wayne, a General, has joined just in time to serve

as 2M band chairman for field day. Hope your stay at GCARC
90 years. FB Wayne, glad to have you aboard.

"LES BELLES"

This is the month when our big field day weekend comes
along gals, and it is once again up to us to see that plenty
of food is at hand. A few suggestions of a beforehand preparation
are:

MACARONI SALAD

1 Tbsp. salt	1/2 Cup chopped onions
3 Qts. boiling water	1 Can pimentos, chopped
2 Cups elbow macaroni	1 Cup celery, chopped
1-12 Oz. can luncheon meat, cut in short strips	2 Tbsp. sweet pickle liquid
1 Cup sweet mixed pickles, drained	1/2 Cup mayonnaise
	1 Tbsp. prepared mustard

Add 1 Tbsp. salt to rapidly boiling water. Gradually add
macaroni so that water continues to boil. Cook uncovered,
stirring occasionally, until tender. Drain in colander. Rinse
with cold water and drain again. Combine macaroni and remaining
ingredients. Toss lightly but thoroughly, chill before bringing
to FD site. Serves 6. Suggested by Marge Doucette-WALKER,
Waterford, Conn.

*****HOW TO PRESERVE A HUSBAND*****

Take care in your selection. Better if not too fresh.
Some choose them young, others want them old, but this is a matter
of personal taste.

Do not boil. Many insist on keeping them in hot water, but this makes them sour and hard. Be careful not to chill with indifference. Instead keep them warm with the sunshine of smiles. Even the poor varieties may be made sweet, tender and good with the essence of love and a dash of play. If treated this way, they will keep fo years.

-----Submitted by Women's Radio
of New England Club.

PRESERVING CHILDREN

1 Large grassy field
2 or 3 small dogs
A pinch of pebbles
A generous measure of brook
1/2 dozen children

Mix children and dogs together, stirring constntly. Pour brook over pebbles; sprinkle field with flowers. Spread a deep, blue sky over all. Bake well in sun. When brown, remove and set to cool in a well-filled bath tub.

(from Oxford Souvenir Cook Book)

73's Rose Ellen, WA2FGS

AREC-RACES COMBINED DRILL

Members of the Gloucester County AREC and RACES units held a combined drill on May 20th, AREC on 50.9 AM and RACES operating 147.24 FM. Harry, WA2SEA, was NC for the AREC net and Corky, WA2TSD, was RACES NC station. The two nets were linked together

through WA2TSD and in addition WB2GEEK and WB2JZX were operating on both frequencies. Operation of the two nets proceeded smoothly and several practice messages were passed back and forth. In the future, it is anticipated that these two nets will hold similar drills on a regular basis.

TECH. ADVISORY COMMITTEE BUSY

Chairman Bill, WB2FJE, reports a good turn out last month to assist in lowering the antennas of WB2WAK and K2SOL who are both moving from the area. Bill wishes to thank all club members who participated. Also, a really BIG job is looming on the horizon--that of erecting the K3WIL 6M ant. on top of Milt's 110' water tower located at Milt's place of business in Swedesboro. (any monkeys in the club?)

CQ, de WA2OMY fm "G" LAND

Who contacted Jim, WB2OER, via QSL card. Gary recently visited the giant radio telescope at Jodrell Bank which is about 150 miles from his QTH. He also recently visited Scotland and just saw "Snoopy" in the Jan. issue of QST. Gary will return to N.J. about August 1st and we will be glad to see him back.

"SHCRT BUTTS"

Jim, W2LVW, bitten by FM bug but rig already back in shop--

(electronic's not quite like AM, Jim). Milt's new name tag's going like hot cakes! They really look great (all new members will get them from now on), and again we owe K3WIL a big vote of thanks. See WB2FJE to order yours.

Ernie, WA2TDI, doing much traveling with Navy (as civilian) scouting Omega gear. (can you sneak me a rig or two Ernie?)

Doug, WA2MPD, competing with Pitman Fire siren at last club meeting. The siren won (maybe just as well)

The latest membership list appears elsewhere in this issue. We hope the mistakes are minimal, but if your call, etc. is wrong please let us know. Suggest you "pull" the page for handy future reference.

***Understand our premier contest worker was recently caught out of the band during the recent DX contest. Any more word on this Ken??

*****NET CHANGES*****

The six meter AREC net will go off the air on June 10th for the summer.

Starting June 12th we will change the format from a formal AREC net to a rag chew type of operation. We will not have an appointed NCS or ANCS or any designated program.

Anyone that happens to be in the shack at 9:00 P.M. can call the net to session, and act as NCS. Instead of calling it an AREC net, it will be strictly a GCARC net. Note that we are moving from 8:00 P.M. local time on Sunday night to 9:00 P.M. on Tuesday night, same frequency, 50.9 MHz. The regular 6 Meter

AREC net will resume operation on September, 9th.

The Novice net on 21.115 will continue for the summer, if participation warrants it. The 10 Meter net will likewise stay in operation year around.

It has often been said that club members should have a meeting place on the air. It has been my objective since becoming EC for Gloucester County to provide such a place. With the net set up that we have now, regardless of your class license, there is some place for you to meet fellow club members on the air.

Harry McCormick, WA2BEA
EC for Gloucester Co.

*****RAMBLINGS OF A GHOST WRITER*****

Electronics always carry a glorified prestige with it's title, of which ability plays a very important part. Some have the ability and very little desire, while others have great desire but little ability. Whenever there is a demonstration of Electronic wonder, people are awed by the results shown and are heard to remark-"they must have a lot of fun playing with those gadgets." Basically, this is true but it isn't the whole story. Many hours of hard work (with lots of frustration thrown-in) help to develop these projects. Technicians just don't throw things together and get results right away. During the stage of development many times the idea is worked over and over before it is discarded for a different approach. The greatest satisfaction

derived from working on a contrary problem is the result obtained when it finally works.

And so it is with Ham Radio. How many of you hams have tried to build something, spending a great many hours, and then have the thing play dead and refuse to work? So what do you do? You just don't throw the thing away. You start over again backtracking in order to find the mistake, (maybe several) before you locate the trouble. But if you keep at it long enough, you will discover where your mistakes are and the first thing you know you will have your gadget working. By sticking with the problem, you have learned more than you realize. Not only did you make it work, but you found out that you did have the desire and ability. FB.....

Don't feel discouraged if it doesn't work the first time you put it together; even the engineers can't always make things work the first time. I know sometimes one feels like dashing the whole thing when you have spent hours and can't seem to come up with right answer. But the true ham is the one who sez, "well, I'll try once more for I can't see why the blasted thing won't work."

Electronic men are a breed of their own. Many fellows and girls all have the same idea about giving the field a whirl, but upon entering, they soon discover that it is a different picture than first conceived. However, I will say this, percentage wise, more of the gals who take up Electronics follow through and go on to bigger things than the men. Remember I said percentage

wise! (if I didn't put in that last statement, I would have the whole male population down on me.. After all there isn't anything that says this field is restricted to the men folks anymore than age enters into it. For a long time Ham Radio was taken for granted-that only men could handle this difficult technique. Gradually more and more femlaes showed they were very proficient in sending and receiving the code at far faster speeds than a great many men. If they could to this, why not study and get their ham ticket? This they did and today we recognize a FB bunch of XYL's and YL's and even CW's into ham radio.

During the past several years many achievements have been earned by these deserving gals, and we men do have to sit back and say well done gals, you are a credit to Ham Radio.

For the DX minded gals along with the men here are some choice places to put your sigs--TUAMCTC ARCHIPELGC, INNER HERBRIDES, MINAMI TCRISHIMA, PALAU IS., VESTERALEN IS., MARKET REEF, MT. ATHCS, MANITCULIN IS. MANIHIKI, AND ANDAMAN IS.

Good luck. Many times I have heard it said that the gals are very good on traffic but NIX on DX. I think that I detect a note of jealousy from some of the DX men.

This is all of the reporting from my ghosts for this period.

CUL. es 73's-----Ghost Writer.

(Typesetters note--dr ghost writer, mni trn fer the double space)

*****THE POOR MANS ANTENNA COUPLER*****

by James E. Ploucher, W2GZE

Having been off the high frequency bands for some years, I decided to reacquaint myself with 30, 40, 20, 15, and 10 meters. To satisfy a broad spectrum of requirements, and keep power as low as possible, I purchased a Yaseau FT-101 transceiver. Down came my 2 meter and 6 meter beams, and soon there sprouted in the back yard a rotatable dipole on 10, a fixed dipole on 15, and a 136' center-fed VEE with a 300 ohm line suspended horizontally about 30' above the ground. What a mess! It seemed I spent half my time just coupling and uncoupling coax connectors. Just about the time of complete frustration, I decided to devise an antenna coupling device which would permit me to switch into these various antennas, permit impedance matching, and step-up or step-down transformation.

I decided to build a coupling unit without incorporating either an SWR bridge or a dummy load (I have both). I drew up a schematic (sketch E) and then prepared a grocery list of the principle items. Now came the problem of obtaining parts-especially the tuning condensers. In the schematic, I envisioned a split stator condenser input with about .060" spacing between the plates and about 100 picofarads per section. Then there would have to be a substantial padding capacitor for the antenna tank of about 200 picofarads with the same plate spacing, and a third capacitor the same as the second, for series tuning the antenna. For inductance, preferably I would require a roller tuned inductor of good quality and of at least 25 turns. Last, but not least, I required toroidal coils.

With grocery list in hand and the schematic in my head I started to search in the radio stores for my capacitors. To my chagrin I could find nothing meeting my specs for under \$20.00 apiece. There had to be a better way and, searching my junk box and my memory, I recollected that the old WWII command sets, particularly the old BC458 transmitter, had 4 very nice tuning capacitors close to the values I wanted (except for the split stator condenser). I hit the various war surplus houses in my area and soon found two BC458 units for five bucks a copy. I stripped these down and came up with the desired roller inductor and variable condensers (except for the split stator capacitor).

Next I began thinking about the chassis and eventually considered trying to fit these couplers into the basic BC 458 package. After checking a few measurements, the idea appeared feasible. In addition, this scheme would permit leaving the main 458 tuning capacitor and roller conductor in place-complete with the front dial drive and turns counting scale for logging purposes. On the strength of this apparent feasibility, I wrote to Amidon Associates on the west coast and

their Balun kit for \$5.00. Incidentally, the kit contained enough formex wire to provide a 1 to 1 and a 4 to 1 winding. A ham friend furnished me with two split stator condensers from his junk box; one condenser was 100 picofarad per section with .030" spacing and the other was 50 picofarad per section with .060" spacing. I decided to gamble here on possible arc-over and went ahead with the .030" capacitor in order to have the additional 50 pF per section.

CONSTRUCTION: To build the unit on the BC 458 chassis, first strip the chassis of everything but the roller coil and it's tuning condenser, the base plate and cover mounting blocks, and one feed-thru insulator. When the chassis is stripped, it should contain only L-1, C-2, the front dial drive, and the turns counter scale.

Referring to sketches C and D, mount the split stator C-1, to the underside of the chassis alongside C-2. However, to support the condenser and to insulate it from the chassis, first mount the capacitor independently on 1/8" clear plastic sheet. Use a Greenlee punch to open clearance holes in the BC 458 chassis for the studs which mount the capacitor frame to the clear plastic. After appropriate measurements, drill a clearance hole for the C-1 rotor shaft which is attached with an insulated shaft or coupling to a dial through the left side of the BC 458 chassis (upright--front view).

For antenna switching, another hunt through the surplus stores turned up a control box for the AR-13 (cost-\$1.00) which contained a single deck ceramic 10-position switch with good heavy contacts plus another double deck switch which, for the moment, was discarded. This switch, S-1, was mounted between C-1 and C-3 with its drive shaft parallel to and protruding on a center line from the drive shafts of C-1 and C-3. C-3 is another 180 picofarad capacitor from the BC 458 identical to C-2 except for the drive mechanism. Like C-1, it is mounted on clear plastic to the rear of the chassis with its shaft on the same center line as C-1 and S-1. Remember, C-1 and C-3 are above ground and must be insulated with ample clearance for condenser mounting screws and with insulated shafts for the tuning knobs.

On the right hand side of the chassis (sketch A), punch 3 holes with a Greenlee punch and mount 3 coax (SO 239) connectors on the same center line, and about midway from the base to the top of the chassis, similar to the capacitor drive shafts on the opposite side of the chassis. The first connector, J-1, nearest the front panel, is the input connector and is wired directly to the center of the split stator condenser. The center connector, J-2, is wired to position A on S-1, and the rear coax connector, J-3, is wired to position B on S-1.

Now take the two antenna binding posts that were removed from the BC 458 panels and mount these symmetrically on the back of the chassis, one on either side of center, and mount an insulating pad in which a binding post is inserted in the center (sketch B). The binding post is wired to switch S-1, position C, for random wire antennas. The two antenna connectors on either side, are wired to S-1, positions D and E respectively for the balanced feed line.

(to be continued next month)

Suggested reading: The Radio Amateurs Handbook, 1972, 604-06.

QST, August, 1972, 32-4.

QST, McCoy, "The Ultimate Transmatch", July, 1970.

Ed. Note: W2GZE, a regular check-in on the GCARC Friday nite IOM net, is an old pro at this business of inventing it yourself. Jim, who resides in Cherry Hill, is to be commended for this FB article and we thank him for this contribution.

*****CLUB REPORT*****

by Harry McCormick, WA2SEA
Recording Secretary, GCARC

Each year at this time one of the duties of the Recording Secretary is to submit the annual club report to ARRL.

Last year after making up the club report, I sat down and figured percentages of club activities and participations compared to the national averages. This year I thought you might like to know how we, as a club, compare with our records for the two previous years. This should give you a better idea on how YOUR club is progressing.

	<u>1970</u>	<u>1971</u>	<u>1972</u>
Club membership	57	59	65
Extra class licensees	2	2	3
Advanced licensees	16	13	13
General licensees	20	25	29
Technician licensees	3	9	9

Novice licensees	<u>1970</u> 8	<u>1971</u> 8	<u>1972</u> 5
Club members upgrading	2	6	11
Unlicensed club members	1	1	2
Annual dues	\$5.00	\$5.00	\$5.00
ARRL appointments	5	10	3

A few things that are also interesting for 1972.

Club membership	National Avg. 30.3	GCARC 65
Annual dues	\$5.35	\$5.00
ARRL appointments	4	3

70% of the clubs in the U.S. have club stations, we don't.

80% conduct mail license exams, we do.

43% publish a club paper, we do.

44% have a TVI committee, we do.

50% have a public relations committee, we do.

Space doesn't permit me to cover this subject as thoroughly as ARRL does in their annual report, but my conclusions are that your club is well above the national averages in most respects. About the only weak point in our club is the fact that we do not have a club station.

Much has been said lately about FM repeaters. ARRL claims that only about 20% of the hams in the U.S. use FM repeaters, while 25% use VHF, 40% use SSB, 31% use CW, and 0.9% use SSTV.

(ed. note: FB report Harry)