



HAM HURUM

AK-SAR-BEN
RADIO CLUB

WØEQU

June 1955

P. O. Box 626

Omaha 1, Nebr.

Vol. V No. 5

Omaha, Nebraska
June 1, 1955

To All Douglas County Radio Amateurs:

You have demonstrated your ability to serve your community when necessity warranted and quietly, but proudly, settled back to normal activities when the emergency subsided.

June 15 is the biggest opportunity for "Hams" to show again, their ability to assist the citizens of Douglas County. If you have mobile gear on 10 or 75 meters, or you can be on the air as an official relay station during the June 15 evacuation period - - - your help is needed.

Don't forget - - - this may be only a trial - - - but the next one could be "it"!

Let me hear from you, that your name will be among those that will help.

Thanks, 73's

W. L. Eilers
Douglas County Radio Officer

Ham Hum

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Post Office Box 626
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Editors:

Dick Eilers, WNØYZV

John Orr, WØPHW

Club Officers:

Art Stadler, WØQMD, President

Dick Eilers, WNØYZV, Vice-Pres.

Larry Caccamo, WØNMN, Secretary

Garry Greenwell, WØNRS, Treasurer

Membership is open to all with an interest in amateur radio and its activities. Dues are 50¢ per month or \$5.00 per year when paid in advance. Students' rate is one-half. Initiation fee is \$1.00. The meetings of the club are held at the Fontenelle Hotel on the second Friday of each month at 8:00 P.M.

Ham Hum is sent to all members of the club and others requesting it. Please submit any news or other information to P.O. Box 626 at least two weeks before the meeting date for that month's issue.

NOTICE

Next meeting will be held at the Fontenelle Hotel Friday, June 10. You are invited.

COMING EVENTS

You will want to be in attendance at the June meeting. Here is why. There will be a color, sound film shown entitled "A for Atom". This film was produced by the General Electric Company. It is a comprehensive film on atomic power, in cartoon form. The theory of atomic power is presented for you to understand. The very inner secrets of the atom unfold before your eyes in such a simple manner that you may want to go home and build an atomic reactor in the basement. If so, we suggest you don't tell the XYL until you have finished the job.

Also, of great interest to you will be the final plans for our field day. The various groups will get together and tie a ribbon on the plans. For more information see the article elsewhere in this issue.

There will undoubtedly be more information on the coming convention. We understand that Earle will have some interesting new ideas for you.

In addition to the above there will be more information on the proposed club house and its location.

(Continued On Page 4)

THE SUMMER'S MAIN ACTIVITY

Some day the hams will begin to capitalize on the event called field day. It could be a money maker for clubs. How? you ask. Well, doesn't it always rain on field day? Don't the farmers ask for rain about the middle of June?

Plans are progressing in fine style for a field day to outdo all previous field days. There will be quite a crowd of people attending this year. There will be room for all to operate and you may operate all night long as usual.

The site this year will be approximately one and one-half mile north of the Bennington road on seventy second street. The site will be next to the

fine gravel road and wet weather will be no problem.

Food this year, will be an individual problem. Bring your own snack and coffee. It is hoped that this will reduce the amount of work for the committee and make the entire event less of a burden for all.

Jerry Armstrong is the committee head and any questions should be referred to him. He has done a fine job of delegating the jobs and the problems this year are reduced.

At the next meeting there will be a discussion of the entire project. Further information may be picked up from the QST magazine.

THERE'S NOTHING TO IT

If you are the dyed in the wool "ole Timer" or the proud possessor of a California Kilowatt with a super dooper DX sky hook, then this article is not for you. This is a bit of dope for the new-comer to the Ham ranks or the guy that is graduating from the 75 watt limitations to the long desired higher powered rig with a corresponding efficient antenna.

OK . . . you're all set up with

a neat looking operating position, the rig works just the way the book of words says it should on a dummy antenna and you're all set to put up that signal sprinkler. The one which will get you into the inner corner of the Psha of Poobahs harem in west Aroohoo.

So there you are . . . pencil and paper, piggy bank, cata-

(Continued On Page 8)

NORFOLK, NEBRASKA

WØVNI, the call of the Norfolk Radio Club may be heard on 40 and 80 now. The club meets at the air port each Wednesday evening. A two meter rig is being planned and will be looking for Omaha, some time after June 1.

FOR SALE

Viking I with VFO, new 10B Exciter with converted BC 458 all band VFO new Side Band Slicer. Any reasonable offer accepted.

Dr. W. F. O'Rourke, WØEWN, Weller Building, Scottsbluff, Nebraska.

ADDITIONS TO THE ROSTER

James Droege, 140 So. 38, HA 4237, YCP.

Harl Dalstrom, 9811 Calhoun Rd., RFD 6, QNL.

David Schinker, 1418 So. 48, WA 4554, YDR.

SENRC MEMBERS ATTENTION

Jack Miller, IXB, who is now living in Nebraska City, would like to hear from some of the 1938-41 members of the SENRC. The same applies to J. L. Dougan over in Hamburg, Iowa.

NOVICE ACTIVITY IN SOUTHEAST LINCOLN

Merlin Dealy, GVA, writes that there are two new stations operating in the novice band from Lincoln. Jim Herrington, YQF, and Jim Gilbert, AWQ, are on 80. Merlin is using a Globe Scout, Heath VFO and a NC-57. See you mobile soon, Merlin.

Coming Events Continued

Looks like a full meeting and a full year's activities ahead.

If you have little interest, come anyway, to the next meeting, and some one will stir the old ham spirit with some plain rag chewing.

Refreshments and prizes (usual, bring along a fellow ham and say hello to the stranger sitting next to you, who knows he might be DX.

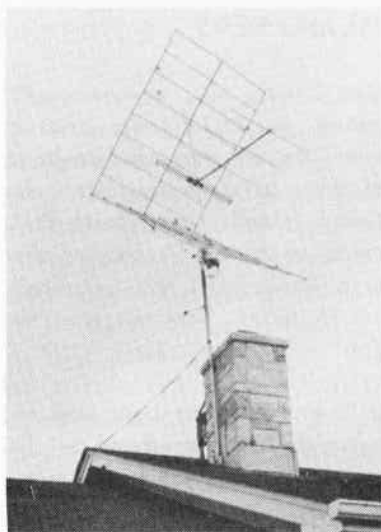
THE HIGH END OF THE SPECTRUM

Life on two meters is anything but routine. Every evening brings new activities and surprises. Dick, YZV, reports working into Des Moines while using an inside antenna. Bill, IGL, is reporting from Ralston. George, AEM, has sixteen elements up in Bellevue and puts a nice signal into Omaha. Some of the fellows with low QTH's do have difficulty reading George.

From a roost overlooking North High School, Dick, AIS, worked into Pawnee City twice last month. Most of the rigs in Omaha and the surrounding area are running much less than 100 watts. The antenna and receiver being the most important. The old saying "If you can't hear 'em you can't work 'em" is very true on two. A low noise figure receiver is very important.

Continuing each Tuesday evening at seven bells is the code and theory class. There is at least one hour of tone modulated CW for your copying pleasure. The speeds range from 10 to sixteen.

Elsewhere in this issue you will find a simple two meter receiver described.



The antenna of W0VTP, Penn Leary. The "V" reflector holds a three element folded dipole with three directors. The antenna is fed with a home-brew one hundred watts. This antenna has an exceptionally high front to back ratio. At the present time it is the only one of this type in Omaha.

We are still awaiting the two meter mobile installation which JJK has promised. YZV and VLI and AEX have all been mobile on two with their Gonset Communicators. The results have been very gratifying.

By the suit he wears, judge not your brother. God made the one; the tailor the other.

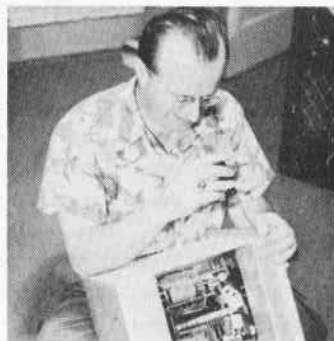
ISLAND NEWS

Gus Lynch, CC, or sometimes known as ELJ, wrote a nice card. We are very glad to hear of the activity taking place in Grand Island. Gus admits that he is operating 80 cw and the high end of 75. ELJ is back on 75 using "ancient modulation".

BUD and BTM are both working out with their three band mobile rigs. Must be planning a nice vacation trip.

We are exceptionally glad to hear that Dave, DW, is feeding his bird cage with an ARC4. Would be very pleased to work you on two Dave. Gus is feeding a groundplane with a 2E26 on two meters.

Seventy-five and eighty meters have long been popular bands in the midwest and so we find YWA and LGT in the swing of things.



U. P. RADIO CLUB MEETS

The first meeting of the UPRC was held May 5, in room 177 of the Union Pacific Railroad Building in Omaha. Officers were elected, Doug Burghardt, WR, Chairman; W. C. Wassem, LDC, vice-president; C. Lee, VGT, secretary-treasurer.

Future planning includes equipping a railroad car with amateur gear and operating RR mobile.

To become a member of the club one must also qualify for a rail ride with a UP pass.

There were 12 members present at the first meeting. Other groups will meet in other towns in the railroads operating area. Meetings in Omaha will be held on alternate Wednesdays. One meeting for business and the next for pleasure.

IOS AT WORK

The picture at the left shows Frank Cooper, WØIOS, hard at work preparing his new Johnson Kilowatt for operation. Frank will use a Ranger to drive the KW.

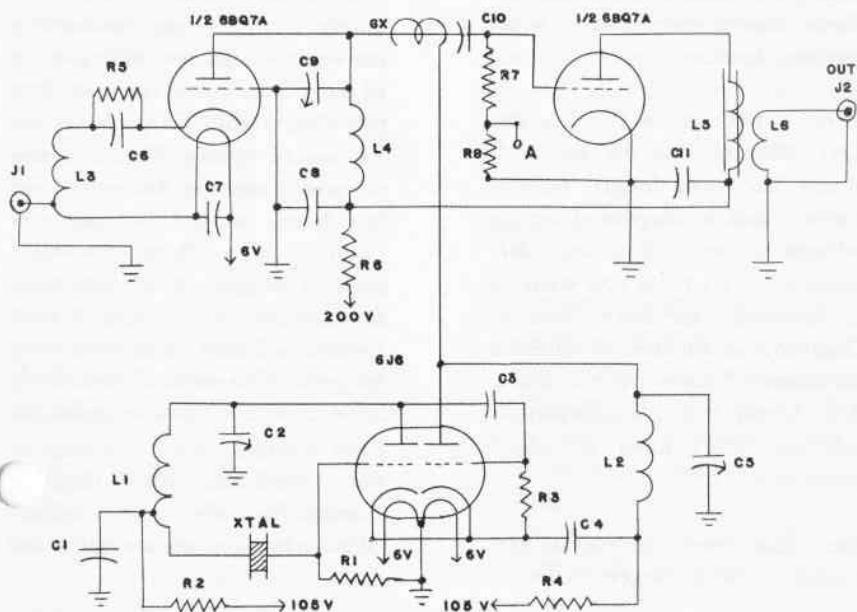
Removing the many hundreds of screws which secure the shielding around the RF section was quite a job. Frank expects to use the Johnson on 10 and 20 meters.

THE "2 FOR 2" CONVERTER

In view of several requests for a really economical converter (2), and especially one adaptable for mobile, the layout below is presented. While the VHF editor has built similar units, using similar circuitry, the exact inductance and capacitive values for the oscillator and osc. multiplier have been lost in the shuffle, so we must present the article without these specific values for those sections, due to lack of time before release of the article. A brief description and recommendation will be given on those, and the exact values will have to be cut and tried.

The converter uses only 2 tubes, so economy is well in mind. The performance should be acceptable for local work. A harmonic osc. is used, followed by a multiplier to bring the injection frequency to the proper point. The RF is a grounded grid, using $\frac{1}{2}$ of a 6BQ7A tube. The other half of the tube is the mixer. It is intended that the output be in the range of 26-30 Mc. for use with a communications receiver that is capable of tuning that range. For use with a mobile converter the entire 2 meter band cannot be covered, due to the fact that the converters commonly available

(Continued On Page 10)



(Continued From Page 3)

THERE'S NOTHING TO IT

logues of all nations, and an antenna book spread out on the dining room table. You're ready to go! BUT . . . in the back of your mind you have a secret desire for a stack of W2BDM's guaranteed W skippers . . . I'll betcha. You take one look at the Piggy Bank, shake his copper stuffins and that secret desire fades into the mist of hidden gloom.

All right, just settle down and open up that book of all books . . . the Antenna Handbook, and see if you can find the array that fits your needs, desires and your pocket book. If you think that's easy . . . start reading, brother.

There's nothing to it . . . the first chapter has to do with phase and wave length, polarization, and a lengthy ditty on reflection, refraction and diffraction . . . !! All you want is an antenna, you say? Then in Chapter 2 is a matter of antenna impedance (some people know this better as impeedeance) but you don't have to worry about that (?).

After four reams of paper, ten slightly bitten finger nails, a



This is just some of the serious thought given field day this year by Jerry Armstrong WØNKG. For help on field day call Jerry at GL 8266.

dog-eared manual, and a disgusted look on your face you finally decide that a good old quarter wave dipole will do your job. Well, that's what it will be.

Just about that time the door bell rings and in comes your buddy . . . the guy that really knows the uppers and lowers of antennas . . . the guy that put you in this fine, clean, inexpensive hobby. With a bottle of your freshest buttermilk in his hand, seated in your pet chair he says, 'Naw, you don't want a dipole. What you need for that rig of yours is a lazy inverted Z with open wire coax feeders. You see, if you don't have that one, you're going to have standing waves sitting on your feedline. Now that (caused by the mirror effect which brings about reflected waves . . . "

YOU CAN WORK OUT IN A HOLE

Have you ever wondered how me of the guys work out so well in spite of the fact that they live in a hole? Living on top of a hill does not always guarantee good DX. Maybe it is not always the location which provides excellent operating. It could be operating methods.

"Working in a hole", that is working in a clear spot in the band, if only a small crack, will overcome the disadvantage of living in a hole or running low power.

How many of us tune the band carefully before transmitting? It almost seems this practice is fast becoming a lost art. Power . . . power to over-ride QRM seems the fad. Call CQ until the frequency clears is the method of operating at some stations.

It seems quite logical that a search should be made across the band for a station calling CQ before even considering making a call.

It also seems logical that one should find some frequency where there is no transmission being made and call on that frequency. How many times have

(Continued On Page 11)

OFFICIAL BULLETIN NR 488
FROM ARRL HEADQUARTERS
WEST HARTFORD, CONN.,
MARCH 24, 1955, TO ALL RA-
DIO AMATEURS.

ARRL invites applications for official experimental station appointment. League members residing in any U. S. or Canadian section who are operating amateur stations with definite experimental objectives on any frequency above 50 MC are eligible. Accumulation of data to aid in discussion and knowledge of transmission phenomena peculiar to our higher frequency bands is a broad aim of this appointment. Complete details concerning requirements for appointment and a sample OES bulletin containing technical information of interest to amateurs who use frequencies above 50 MC will be sent upon request.

FOR SALE

HQ-129-X and matching speaker, unmodified, \$130.00.

Commercial 250 watt 2 meter final, complete with two 4-65A's, bias supply, filament supply and meters, panel mounted, \$30.00.

John Orr, WØPHW, 4530 No. 56 St. Omaha 4, Nebraska.

The "2 For 2" Converter Continued

cover from 27-30mc, or 28-30mc. If your converter covers 27-30mc. then you can cover 144-147mc. If the converter covers 28-30mc, then you can only cover 144-146mc. An alternate to this would be to use 2 xtals so the entire band can be covered, but since that is additional expense it will not be covered in this article. If your converter covers 27-30mc, then you should use a 3rd overtone xtal for 39mc. If the converter covers only 28-30mc. then a xtal for 38.666mc should be used. In either case the lower limit of the converters tuning range will be tuning 144mc. The xtals are available from several sources, such as Petersen, (Iowa) International (OKLA) etc.

Values for the RF amplifier and mixer are given. On L3, when aligning the unit, this coil can be squeezed or expanded slightly for resonance. C9 tunes L4 to freq. For initial alignment, couple a watt or two into the coax connector J1 by a small pickup link in the field of the xmtr. Use a VTVM from mixer test point A to ground. When the RF amplifier grid and plate is tuned to resonance there will be a reading of a few volts, depending on the amount of pickup from the xmtr, or grid dipper, used to excite the RF section. The slug in coil L5 should be peaked for maximum

output, with the converter tuned to the middle of its range. The osc. is very simple, but for those not having a grid dipper this may present a problem, due to lack of information on the component values. L1 and C2 should resonate at the crystal overtone freq. (about 38-39mc.) It is suggested that a coil of the following values be used to start with. (L1-5 turns #20, 1/2" dia., coil 3/4" long. The B plus tap will determine the amount of regeneration to sustain oscillation. Start with the tap about 1 1/2 turns up from the grid end. Moving the tap towards the grid end will reduce feedback, and towards the plate end increase feedback. The tap should be as close to the grid end of the coil that will allow enough feedback to insure reliable starting of oscillation each time the B plus is turned on. A grid dipper will be a great help! L2 and C5 are resonated to the 3rd harmonic, or about 117 mc. No special requirements other than hitting the frequency. When the oscillator is working ok, there will be about 2 volts negative from test point A to ground as measured with a VTVM (ONLY), and this is with no signal coming in. If the reading is less than 2 volts, increase the coupling on the Gimmix (C coupling, which is simply an insulated wire wrapped around the

(Continued On Page 10A)

The "2 For 2" Converter Continued

RF tube plate lead. More or less coupling is used at GX until you have about 2 volts at test point A

Once you have the converter peaked up roughly, get someone on the air with a potent signal and then go through the converter RF and peak the RF input and output, then have them give you a weak signal and tough up the adjustments again until you have it peaked for maximum on a weak signal. The GX will make a difference on a weak signal and is to be set for the proper injection on the weakest signal you can hear. L5 should be adjusted for a peak on the most used frequency. (PS - be sure and ground pin 9 on the 6BQ7A socket. All leads, especially on coils L3 and L4 should be less than 1/4".)

PARTS LIST

J1/J2-coax connectors

C1/C4/C6/C7/C8/C10/C11-.005 ceramic disc

C3-33 mmfd tubular ceramic

C2/C3/C9- are 3-30 mmfd trimmers

R1/R2/R3- 10K-1/2 watt

R4-470 ohm 1/2 watt

R5-330 ohm 1/2 watt

R6-15K 2 watt

R7-100K 1/2 watt

R8-1 meg. 1/2 watt

GX- capacity from twisted wires. (See text)

Xtal- 3rd overtone for proper freq (See text)

L1- resonate with C2, (see text) at about 39 mc.

L2- resonate with C5 at about 117mc. (see text)

L3- air wound, self supporting. 4 1/2 turns #18 tinned. Inside diameter 3/8", coil 1/2" long. Antenna tap at 1 1/2 turns from ground end. Coil leads 1/4" max. length.

L4- air wound, self supporting #18 tinned. 2 turns, 1/2" long, 1/4" inside diameter

L5- Cambridge LSM30 (coil ready wound on slug tuned form to resonate at about 27mc. with tube capacity. (check with grid dipper) L6-2 turn link #20 insulated hook-up wire wound tight against cold side of L5

(A) is mixer injection test point)

1-6J6 tube

1-6BQ7A tube

chassis and misc parts

OFFICIAL BULLETIN NR 494
FROM ARRL HEADQUARTERS
WEST HARTFORD, CONN.
MAY 5, 1955, TO ALL RADIO
AMATEURS BT Utah, Maryland
and Pennsylvania have now
joined with 26 other states
authorizing call letter license
plates. ARRL Headquarters
continues to supply assistance
and information on this sub-
ject to interested groups AR.

THERE'S NOTHING

(Continued From Page 8)

With a dejected look on your face you heartedly agree, because this guy knows exactly what should be done. So it's a Lazy Z with open wire coax feeline that develops in your back yard much to the dismay of man's best friend, the XYL or your mom.

You're all set . . . your breath is coming in short pants, one hand on the switch, and the time is here to pour the heat to that Lazy Z . . . Hmmmm, that thing must be lazy . . . the final plate meter must be lazy too, cause it just barely

waves its hand. Hey! it's only loading to 25 mils! So your buddy that's back again for the trial run starts off again with that foreign language explanation of the problem as a whole. He says, "The whole situation has a simple explanation . . . we have a simple problem of mismatch . . . while our calculations were correct, the impedance must have changed as we raised the array. And we didn't take into consideration the effect of those trees brushing against the north end . . . Well, I have to get going now, let me know how it works when you get it straightened out."

WANTED BY BCA

Seems Rod Rosse has a new rig and the maid threw out the drawings of the rig. It just happens that the complete drawings and description of the rig appear in the June and July issues of CQ magazines for 1951.

Any one have these issues, Rod would like to buy or borrow them. Rod can be reached at 5827 Burdett St. or at WA 7403.

SERVICE NOTES

M/Sgt. Bill Duncan, WØQBK, is heading for VO land. Certainly have changed things in the service, spending the summer up in the cool country is real delux.

Maw Robbins, VUT, has only a few days left in the employment of his Uncle. He is planning a full summer of ham activity.

You Can Work Out In A Hole Continued

you been working a rather weak station only to have some strong local sit on top of him and kill the QSO.

This leads up to one more point. Try, whenever possible, to operate on the same frequency as the station you are working. This puts one frequency to use 100% of the time, and will help keep other stations off until you are through.

The practice of calling CQ on just any frequency, regardless of the traffic on it may stem from the novice band where the power is all low and the bands crowded but some of the fellows doing this were around long before the novice ideas was dreamed up.

When we bought our new home, I insisted to the XYL that it must be located on the top of a hill and in the clear of all trees. I wanted to work out with no hindrance.

Our home was purchased, antenna mast erected, antenna and lines installed right to the rig. The rig occupied a room on the first floor. I purchased a new receiver and pushed the

final to a good 600 watts. But I just couldn't work out.

At first I thought it might just be me, but then Ed wasn't doing so well on 40 either. For instance, the other night I decided to give 40 one more try. With dinner under my belt, I retired to the ham shack. Ed had always seemed to work out well on 7028 kc so we plugged in a rock on that frequency and warmed up the rig and called CQ. Well, I tuned around the frequency and got no replies. I did notice Ed trying to work a W6 but guess the QRM was too much for him. I called CQ again and even tried a few other rocks and had no luck. Seems everyone was having trouble on the band that night with the QRM.

I was ready to give up when Sam dropped over with a new calibrator he had built. Now Sam is an old 40 meter man from way back and was naturally interested in the band conditions. I gave him the straight scoop, but Sam was already tuning the band from end to end. "Sounds good tonight" he muttered, I replied with a frown. "Lets fire her up and work some one" he suggested, "you have a good location here". If he wanted to, he could give it a try. But Sam kept on tuning for almost three minutes, I guessed he had lost interest.

AK-SAF EN RADIO CLUB
P. O. BOX 626
OMAHA, NEBRASKA