



HAM HUM

Published by
AK-SAR-BEN RADIO CLUB, INC. - Omaha, Nebr. 68101
Post Office Box 291 - Downtown Station



Vol. XXIII
No. 8

August 1973

NEXT MEETING

WHEN: FRIDAY, AUGUST 10, 1973

TIME: 8:00 P.M.

WHERE: FITZGERALD FRIENDSHIP ROOM
COMMERCIAL FEDERAL SAVINGS AND
LOAN ASSOCIATION
4724 South 24th Street, Omaha
(Free parking in rear off 25th Street)

VISITORS WELCOME
REFRESHMENTS -- EYEBALL QSOs

CLUB REPEATER CALL WRØABQ

HAM HUM is the official organ of the Ak-Sar-Ben Radio Club, Inc., of Omaha, Nebraska, mailed monthly to all members and to others upon request.



Next copy deadline: August 24th

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AK-SAR-BEN RADIO CLUB, INC.

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FIELD DAY REPORT

By Russ Minks, WAØVEE

First of all, the weatherman did a fine job for us on Field Day. The weather was great we all got a real good sunburn, and we didn't get wet.

Rick Brown, WAØZQX, was in charge of the VHF shack and turned in a good number of contacts: 59 on 2 meters; and 54 on 6 meters.

Lynn Blesh, WAØODH, was in charge of the 15 and 75 meter shack. He and his operators turned in a surprising number of contacts: 311 on 15 meters; and 337 on 75 meters.

Mike Wilczynski, WBØBMV, ran the 40 meter shack and his gang had 442 contacts.

Rip Riportella, WBØGAJ, and his crew turned in 460 contacts on 20 meters.

This was a total of 1663 contacts and with our multiplier it gave us a score of 3326 not counting the bonus

points. With bonus points it will come out to 3476. With luck this will put us in good standing. It will be interesting to see the outcome in QST.

Sorry I can't name everyone who participated in Field Day but my thanks to all. We had a lot of good help and real hustlers and without those kind of people, you don't have a Field Day. As it turned out, we had an exceptional one. It was terrific, guys and gals. I think we have one of the best radio clubs in the country and I am sure you will all agree. A very special thanks to Norval and Connie Bowen for the best possible Field Day site.

So, there you have another Field Day. We have a year in which to recover from our sunburns, aches and pains, before it's time for another real go next year.

THE AMERICAN RADIO RELAY LEAGUE, INC.

ADMINISTRATIVE HEADQUARTERS NEWINGTON, CONNECTICUT, U. S. A. 06111

July 25, 1973

QST
OFFICIAL ORGAN

TO ALL AFFILIATED CLUBS

The Federal Communications Commission has proposed to take one Megahertz of the amateur 220-MHz band and re-assign it for use by a "new" Citizens Radio Service to be known as "Class E." This proposal was prompted by a petition from the Electronics Industries Association.

At the meeting of our ARRL Board of Directors last week, it was unanimously agreed that we amateurs should strenuously reject any approach that contemplates occupancy of the 220-MHz amateur band by the Citizens Banders, or by establishing a lower class of license.

The League is of course filing strong opposition to the EIA and FCC proposal. But official Washington can be more effectively made aware of the extent of our feelings as amateurs if each one of us would address the Federal Communications Commission, Washington, D.C. 20554, expressing his view. It is most desirable that the required 14 copies be submitted, as this permits every Commissioner and senior staff member to have an individual copy for study. If you do not have convenient access to a copy machine, they are usually available at banks and libraries, among other places.

League members will "get the word" through QST (the editorial in the August issue has some suggestions on procedure and content), and communications from their directors. Some have already written their Congressmen as well as FCC. I am addressing this letter to clubs to remind and encourage preparation and submission of individual comments. Also, I have in mind particularly that your club will reach some amateurs who are not currently on the League membership roster. The deadline for filing with FCC is September 20, but your members can write anytime before that. Please point out to them that this is their battle, too. Their favorite band may be next! But remember that calm, factual comment is what is required; emotional statements of simple opposition are not of much use.

Whether or not we are successful in stopping this invasion of the amateur bands will depend to a large degree on the extent of protest the Commission (and Congressmen) receive. Please do your part.

Sincerely yours,



W2TK
President

JULY MEETING

The July meeting was most interesting in that the program included descriptions of members' "second hobbies."

Opening the program, Bob Lockwood, WAØDHU, of Omaha, presented what might properly be categorized as a "sub-hobby" rather than a second hobby. Bob has engaged "QRP" operation in the construction and operation of the fine little HW-7 transceiver. He explained the challenge of QRP operation and concluded with "proof of the pudding" QSL cards from some of the stations he has worked.

Tom Mahoney explained the construction of his Heath 90 watt CW rig. He related that he looks forward to resolution of the last "bug" standing between him and completion of the project.

Tom Mulick, WNØKFZ, a new member of the Club, made a most enjoyable presentation well seasoned with anecdotes. His explanation of the intricacies of the "military miniatures" was most interesting and entertaining. Tom explained how information is obtained regarding the proper uniform and accoutrements of his models. The precision involved in finishing these models was almost beyond belief. It was a pleasure to hear from Tom on this most unusual hobby and to learn of the many hidden complications involved in the fabrication of model soldiers. Pat Snyder, WAØTTW, of Fremont described his experiences in skin-diving and some of the factors which he finds attractive such as exploring sunken ship wrecks. He listed some of the training and experience requisite to obtaining certification of competency.

An explanation of how he became a ham was provided by Jim Kates in his description of the fun of "SWLing" or Short Wave Listening. Jim showed some of the certificates he has received, described his equipment, and his talk was thoroughly enjoyed by all present.

Club President Russ Minks, WAØVEE of Omaha, represented his second hobby as photography. Evidencing this were some of the many cameras he employs. Having been a "semi-professional" photographer, Russ' skill was readily apparent in several excellent shots of various subjects. Particularly impressive were several night time-exposure photos of various buildings illuminated in an aesthetically pleasing manner. Russ showed us in considerable detail the many exotic movements of his cameras to cope with the sophisticated problems involved in taking professional quality shots.

Concluding the program on a most impressive note was Dick Eilers, WØYZV, of Omaha. He presented some of his 35mm slides of subjects encountered on sojourns to various parts of the world. Particularly interesting were the excellent slides of various tropical flowers including orchids of several species encountered and photographed in Hawaii. Dick also showed some very interesting slides of the Radio-Telescope at Arecibo, Puerto Rico which is a huge parabolic antenna in the order of 1,000 feet in diameter.

Thanks to all who participated by showing us their diverse interests and providing a stimulating evening to all who attended.

Vern "Rip" Riportella - WBØGAJ

MEMBER NEWS

Dear Fellow Club members: Please change my address from Box 382, Bellevue, Ne 68005 to: MSGT Donald W. Schmidt, 432 AMS, PSC Box 3182, APO San Francisco 96237. Just arrived in UDORN RTAFB in Thailand a few days ago. I can only say one thing for sure about the place and that is, it's hot and humid. Hope to get on the air with a HS call.

73,
Don

* * *

June 26 '73

Russ,

Just a few lines to let you know my new address, so I won't miss the good Ham Hum magazine. Enjoy the new QTH very well, plenty of room for a 160 mtr rhombic here.

Already I miss helping with the code and theory classes. Make sure Bob (WAØDHU) has plenty of help this fall with it.

Have talked to my old buddy (KØDKM) twice so far, and talked to Ron WA8PDJ (old Club member) who is in Plymouth, Michigan now.

Russ for now, so long, and good luck to ARC there, and thanks to Mike (WBØBMV) for the Field Day contact.

Jim Garr, WBØCLU/Ø
Rt. 1, Box 241
Stover, Missouri 65078

P.S. My neighbor said his cows are jumpy at milking time. Reckon I'm TVling his milker? Hi Hi.

ANNUAL PICNIC

By – Russ Minks, WAØVEE

Our Picnic this year will be held on Sunday, September 23rd at the park in Missouri Valley, the same location as last year. It's a real nice, convenient place and in case of bad weather we have access to a building to keep us dry. Hi.

With the meat situation as it is, we have to ask \$3.00 for a steak for adults registered in advance (\$3.25 at the picnic grounds) and \$1.00 for hamburger steak for the children.

Everyone please bring a covered dish to supplement the meat, and that makes the meal. The Club will furnish the ice cream, pop and coffee.

We will have something different this year – a FLEA MARKET. Bring anything you might have to swap or sell – out of your own trunk. Every deal you make is your own; the Club will have nothing to do with it. You will be on your own!

We will eat at 3:00 PM and the drawing for prizes will be at 4:30 PM. You DO have to be there to win any of the prizes.

MORE MEMBER NEWS

Joe Eisenberg, WAØWRI, has joined the SSTV ranks with a new SBE monitor and camera system. Say "cheese," Joe.

de Al, WØJJK



Vernard Riportella, WBØGAJ

NEW BOARD MEMBER

At the July meeting the membership approved the selection of Vernard Riportella, WBØGAJ, as a member of the Board of Trustees to fill the unexpired term of James E. Garr, WBØCLU, who moved to Missouri.

We know you have seen Rip, as he is known to his friends, at club

meetings. He had charge of 20 meter shack on Field Day and did a splendid job.

Welcome to the Board, Rip! We are fortunate to have you as a member and know you will do a fine job.

Russ, WAØVEE

HEATH RIGS FOR SALE

HW-16	\$75
DX-60B	\$50
HG-10-B VFO	\$30
SB-401 w/xtals	\$200

Don Novotny, WBØDRS
Phone: 572-8395

FOR SALE

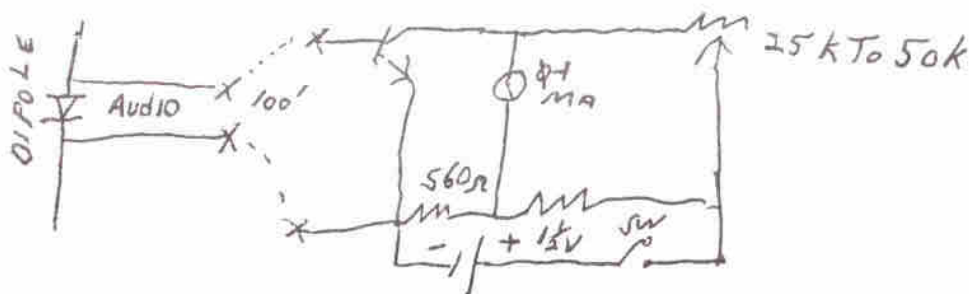
Drake TR-22 with 34/94, 22-82, 16-76, 94-94, 76-76, 52-52 and all accessories. Make offer.

Dale Diamond, WBØGXJ
Phone: 553-9067

DAYTON L. PHIFER, WØVEA
 EAST TRYON ROUTE
 NORTH PLATTE, NEB. 69101

The need for a remote pick-up meter on 2, to monitor output of transmitter, gain or loss of transmitter or antenna adjustment, versus the cost of a micro-amp meter, lead to the use

of this D.C. amplifier to use a \emptyset to 1 ma. meter and make it read like a micro-amp meter, or even more sensitive. Parts are not critical and the idle draw is less than $1\frac{1}{2}$ ma. Recommend the dipole be 100' or more from the transmitter antenna, even with low power.



ADDITIONS TO ROSTER

Gary D. Maples, K9VTE/ \emptyset
 7237 Ames Avenue
 Omaha, Nebraska 68134
 Phone: 572-6254

Thomas L. Mulick, WNØKFZ
 2617 North 76th Street
 Omaha, Nebraska 68104
 Phone: 558-2067

William A. Schwiesow, WAØSOA
 4028 Mary Street
 Omaha, Nebraska 68112
 Phone: 455-4484

LOST AT FIELD DAY:

Pair metal rim sunglasses.

Don, 572-8395

NOTES FROM READERS

Hello from California:

First, for the information of those who are coming to San Francisco Bay area, the grizzly peak repeater, formerly WB6AAE, has its new call sign - WR6ABM - 14622/82.

For many years you gentlemen have been sending Ham Hum to me here on the coast and I wish to express my gratitude. It is nice to be able to keep up on the activities of some of my old friends - saddening to read of the loss of some. Many thanks again from an appreciative ham.

Bert E. Newkirk, WA6SIX

A clever husband uses tact - he lets his wife go her way, and he goes hers.
 de Florida Skip

SINGLE SIDEBAND GENERATION

By Bert Wheeler, W4IBU

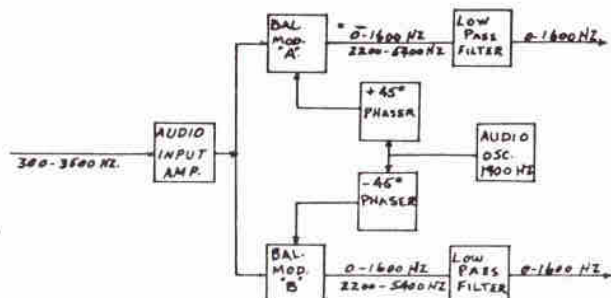


FIG. 1

There are three techniques for the generation of single sideband signals.

The first eliminates the unwanted sideband by the use of sharp cut-off filters and is the method most used in today's sideband transmitters and transceivers. The second method is the phasing type which eliminates the carrier in two balanced modulators and generates the sidebands, upper and lower, in these same balanced modulators for quadrature phased audio input signals. The upper and lower sidebands are fed to a combining circuit where the quadrature signals either aid or cancel out to produce the required sideband. Either sideband can be selected by switching inputs to the combining circuit.

Both of the foregoing methods are commonly known so we will concern ourselves here with a third method which combines some of the features of each of the first two methods.

The generation of the sideband in this method is unique in that the sideband is generated at audio frequencies. See Fig. 1. An audio signal of 300-3500 HZ is applied to

the inputs of two balanced modulators in phase. Also applied to these same two balanced modulators is the first carrier frequency, 1900 HZ, which has been phased so that the input to balanced modulator A is ninety degrees out of phase with the input to the balanced modulator B. Note that all frequencies applied the first balanced modulators are in the audio range. The output of both balanced modulators consists of upper and lower sidebands and carrier with the output from balanced modulator A ninety degrees out of phase with the output from balanced modulator B. An audio range of 1600 HZ is ample to provide efficient voice communication so filters are added at the output of the balanced modulators to attenuate all frequencies above 1600 HZ.

These outputs from the filters are then fed into the second pair of balanced modulators, C and D, where they are used to modulate a second carrier. See Fig. 2. Here the unit generates both upper and lower sidebands and cancels the carrier. In

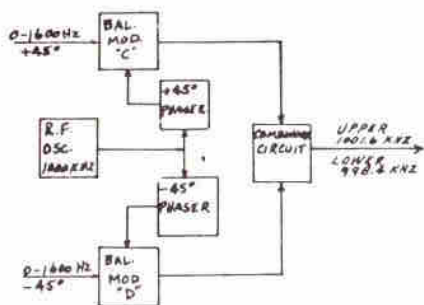


FIG. 2

signal so the method is adaptable for transceiver application. Since the filters need not be the sharp cut-off type and since the balanced modulators do not require any critical balancing, it is probable that this method would be the most economical of the three.

The phasers used could be either the active type, using tubes or transistors, or the passive type, using resistors and capacitors or inductors.

To my knowledge, no single sideband transmitters using this method of generation are currently in production and the foregoing is offered only to stimulate thinking and possible experimentation.

de QRM, Ozone ARC, La.

the combining circuit which follows the second pair of balanced modulators the lower sidebands are cancelled because of their phase relationship and the upper sidebands are combined so that the output is single sideband. This single sideband can then be fed to a balanced mixer and heterodyned to the proper frequency. At the output of the balanced mixer a filter would be installed to pass only the proper sideband since again there would be both upper and lower sidebands generated. However, the sum and difference frequencies are so widely separated that filtering would be relatively easy. Proper switching will permit the transmission of either sideband, if desired. See Fig. 3.

FOR SALE

Drake R4A, T4X, 2000 watt Homebrew Linear; also 60-ft. tower and miscellaneous equipment.

Contact Joe Foster, WØWRE
Phone: 551-6725

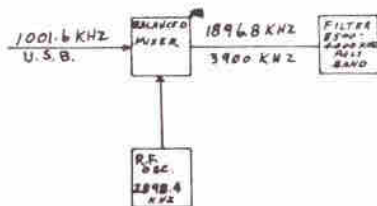


FIG. 3

DON'T BECOME A BURNT ARMS MEMBER——

During a visit to a friend, I noticed severe burns just above his wrist which extended up his arm in a series of bracelet patterns. Apparently, whilst wearing a wrist-watch with a metal expanding strap, he was carrying out some wiring modifications under the dashboard of his car when the metal happened to get across the 12 volt supply! The strap became almost red hot causing quite a serious burn. The

The same circuits used for generating a single sideband by this method can also be used for demodulation of a single sideband

additional burns were caused by repeated attempts to push the strap away from the initial or original burn. The strap was not pulled off the hand, as in the panic at the time, it was not realized just what the trouble was and in any case, the strap was too hot to be gripped by the other hand.

By G8NY from Mobile News
Republished in ARNS Bulletin

WATCH IT when installing that new mobile rig this spring.—Editor
de Ground Wave, St. Paul

(Ed. note: Rings on fingers can also present a hazard here.—JDS)

SOME DIFFICULT THINGS TO DO . . .

To admit guilt
To break a habit
To think logically
To love an enemy
To confess ignorance
To withhold judgment
To grow old gracefully
To persevere without haste
To wait without impatience
To decide without prejudice
To suffer without complaint
To be indifferent to ridicule
To know when to keep silent
To hate sin, yet love the sinner
To concentrate in the midst of strife
To endure hatred without resentment
To fraternize without losing individuality
To serve without compensation, commendation, recognition.

Sunshine Magazine
Contributed by Stella Hemphill

de C.B. 9 er's — Omaha

SAFETY HAS NO QUITTING TIME

POWER BRAKES WITH THE POWER OFF

The car came slowly out of the shopping center parking lot. Instead of stopping at the street line, as other drivers expected it to, it sailed right out into the street into the path of oncoming traffic. Nobody was hurt, but the damages cost nearly \$1,000 to repair.

The driver said her brakes had failed. Later a police officer investigating the crash started the motor and tried the brakes. They were working.

Obviously what had failed was the power assist on the brakes. The engine had died as the car was moving to the street, and the driver did not understand what had happened. Nor was she prepared for it if she understood.

If she had understood, and had practiced in applying brakes under such conditions she might have avoided a nasty accident.

There was no brake failure, there was just as much braking capacity as there was with the power on, but it required more foot-power at the pedal.

"Power brakes are built with a lower pressure ratio from brake pedal to brakes than manual brakes. Consequently they require much more force at the brake pedal when the power goes off. The power assist goes off if your motor dies. This could happen at embarrassing times, such as when you are driving out of your driveway with a cold engine. In fact, it happens fairly often.

"If you don't know what has happened when you suddenly seem to

have no brakes, and if you respond promptly, you can control your car. If not, you might be riding to a nasty collision.

"The proper response is immediately to apply all the force you are capable of to the brake pedal, using both feet and supplementing your own weight with the pressure on the steering wheel. Just don't panic. You still have brakes, what you don't have and what you have to supply with your own pressure, is the power assistance. With enough pressure, you can stop within the same distance as with power brakes.

"When the power goes off on the brakes, it also goes off on the steering. Your car steers like a heavy truck without power assistance. It requires a lot of extra force if you have to turn. If you don't, and the road is sufficiently clear ahead of you, concentrate on the brakes until things are under control."

Drivers should practice for this emergency. "Of course, you are a lot better off if you know precisely what the problem is and what you are to do. The best way to find out is to practice. Pick a place where there is plenty of room and no traffic, get your vehicle up to city driving speed, and turn the engine off. This will give you experience in braking and steering without the power assists, and prepare you for such an emergency."

Northwestern Bell Safety Magazine
de Midwest C.B. 9 er's bulletin

"Let us keep our words short and sweet; we may have to eat 'em some day."

de Florida Skip

FOOD FOR THOUGHT

Ward Becht (W61RK) thanked W6LS for the fine Hamfest. Stan Hines (K6KN) reports that he and his XYL enjoyed the 8th annual Burbank Hamfest. We overheard many unusually complimentary remarks about the show with the only complaints being directed at ham manufacturers who did not participate in the show. There's damned little legitimate reason why any major ham manufacturer should fail to show at a show which annually attracts an average of 1,000 hams! The need for participation should be apparent by the 8th annual show. Our total of only 17 manned displays this year was one of the lowest we've ever had. Any reader who has occasion to write to ham outfits (such as Aerotron, Collins, Hallcrafters, Hammarlund, National, CQ, Tri-Ex, Tristao, SBE, Regency, Sentry, Robot, ETO, Telrex, etc.) would do well to point out that they were missed at the show. On the other hand, please remember to acknowledge the fact that we appreciate the help received from each outfit on the list of supporters in the Hamfest program. You can help us get additional displays, if you'll just write a few lines.

Ed. Note: Ward is a former Omahan.

To know what everybody knows is to know nothing.

* * *

To be the man of the hour first learn to make every minute count.

de Florida Skip

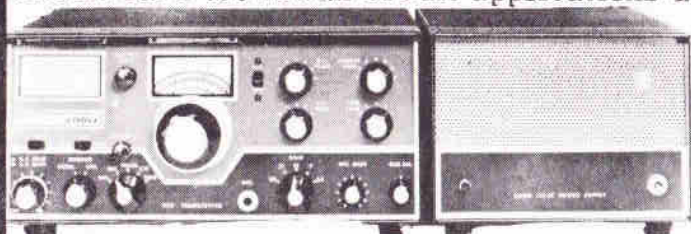
TAKE A



SWAN

DIVE

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500CX 550 Watts , 80/10 meters, SSB-CW-AM
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internal AC supply. 80 to 10
meters, 260 watts PEP-SSB.
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Model 14A (DC/ps)-\$ 44.95



WM-1500 \$49.95
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accessories.... call H. I. !



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