



HAM HUNTING

AK-SAR-BEN
RADIO CLUB
INC.

WØEQU

April 1958

P.O. 626

Omaha 1, Nebr.

Vol. VIII No. 3

MOBILE MODULATION

by Windy - WØNPA

See Page 11 for
news about the
April Program

If the weather continues to improve as it has, it won't be long before we'll be employing the old loop and other transmitter hunting paraphernalia to search for the elusive "Bunny". For the benefit of those whose "Bunny-Hunting" has been done with shotgun, rifle, big stick or a sack full of rocks, allow me to explain. In the spring when a young man's fancy turns to love, a ham's fancy turns to thoughts of bigger and better antenna or outdoor activities such as "Bunny", or hidden transmitter hunting. This sort of mad-cap involves loops-air-riding, a group of wild-eyed, auto borne hams (amateurs.) From a pre-determined point and at a pre-determined time, these gentlemen (?) (and some-

times ladies) set out crashing through tulip beds, peering in garbage cans and generally upsetting the serenity of a Sunday afternoon. Eventually they all converge on one area like a horde of locusts. This means only one thing, the "Bunny" is nearby quivering in his burrow with R.F. literally dripping from his whiskers. After he is found, everyone, including the "Bunny" (who by now has turned back into a man) retires to the nearest malted milk emporium to have one for the road. This last point has a purpose, namely, to quench the maniacal gleam in the eyes of the participants.

Seriously, it is a lot of fun and the time is drawing near.

(Continued on page 3)

Ham Hum

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AK-SAR-BEN RADIO CLUB, INC.

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Ak-Sar-Ben Radio Club memberships are open to all persons having 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 25¢ per month or \$3.00 per year. Initiation fee \$1.00. Special rate for OM-XYL, \$6.50 payable annually. Meetings are held on the second Friday of each month.

(Continued from front cover)

It does not require a lot of equipment to hunt transmitters. In the past, we have had people come in first who have used nothing more than their regular mobile equipment. However, more consistent results can be expected with even a simple loop and development of a little technique. I have tried the bi-directional loop using two turns of tubing and found it not too satisfactory, due to unbalance introduced from the car body. The single turn shielded loop is not seriously affected this way and is fairly uni-directional, which is desirable. The receiving set-up can be any receiver or converter-car radio combination.

The main thing is a signal strength indicator of some sort. It is an easy matter to connect an AC volt-meter across the voice coil of the receiver. This will indicate relative strength of the audio, or tone, as may be used at the "Bunny". This method is as good as an "S" meter and easier to remove after the hunt. After you hear the "Bunny" you can take a "fix" with loop or other device used. It is very convenient to use a city map and mark your "fixes" on the map. I use a  mounted on a small board covered with celluloid. You can mark on the celluloid with

crayon and when through, a wipe of a wet cloth makes it good as new. Maps and celluloid sheets can be obtained at Standard Blueprint in Omaha. We hope to see *You* at the first hunt, which is tentatively scheduled for the Sunday following the May club meeting. That would make it the 11th of May. Following are some references to help get you started: QST-April '54 p.33; June '54 p. 26; March '55 p. 25; April '56 p. 30; Feb. '57 p. 11; (take a good look at the last one) Feb. '58 p. 55; CQ Sept. '53 p. 13; July '55 p. 22; also CQ and QST mobile handbooks.

CQ & QST subscriptions should be renewed through your club secretary.

W8IF learned that all TV sets in the future will have high pass filters installed. (From CQ News). This will certainly be a boon and we hope eliminate difficulties previously encountered due to poor TV set design. We also hope that all set manufacturers will follow this idea rather than a few leading companies.

SSB CHATTER

The hottest item of conversation in SSB circles lately has been the new Drake 1-A Sideband Receiver. For a fairly reasonable sum of \$259.00, this receiver has been giving a very good account of its performance both as to selectivity and stability.

It obtains its stability by basically tuning only a 600 Kc. segment for all bands (4.0 to 4.6 Mc.) thru a 6BY6 mixer that has a bandpass (2.9 to 3.5 Mc.) input circuit. The 600 Kc. is tuned with twenty revolutions of the tuning knob. Unbiased tests made with the Drake 1-A and other high priced receivers, side by side, proved the Drake will give a very good account for itself with the best of them.

Incidentally, any of you guys that would be interested in getting on Sideband without mortgaging your home should give the WRL LA-1 Linear Amplifier a second look. Using one of the CE 10A or 10B exciters, a power gain of approx. 10 can be yours with the LA-1 which will give a good signal in comparison with the other exciters.

Sideband activity in the Omaha area is rather limited with the following participating: W0UEV, W0YMU, W0MKP, W0DYG, W0NZ, W0UJT, W0AWX, W0CQX, and W0IYB.

HI-FI ON A

COLLINS RECEIVER?

Well, not quite, but you can very easily change that very limited bandpass if you have a Collins receiver that has only 3 Kc. filter in it. Just waltz down to the radio emporium and pick up a sub-miniature 455 Kc. I.F. transformer. Solder a solid #20 wire $\frac{1}{2}$ inch long to each of the four leads (for 75A-4) and put one winding to pins 1 & 2 and the other winding to pins 6 & 7 on an empty filter socket. Peak the top trimmer on the new I.F. can to maximum "S" meter reading then remove the new I.F. can and peak the bottom trimmer by adjusting a little bit, checking "S" meter reading and re-peaking till both windings are peaked. The can will have to be removed each time the bottom winding is peaked. If anything, the "S" meter reading will be a bit more due to more noise received in the wider bandpass. On a "S"9 signal the bandpass will be about 8 Kc., nice for HI-FI reception or listening to nets without constant retuning. On the 75A-3 receiver the filter socket is two small crystal sockets and longer leads will have to be used. The filter can be laid on its side the same as the 3 Kc. filter and peaking will be simple for both windings.

---de W0JJK

1958 ARRL Field Day Rules...

Emergency Test, June 28-29

The ARRL Field Day is our annual demonstration of ability to set up radio communications in emergency! Civil defense communications as well as natural disasters require all supplementary equipments and facilities that can be developed. We have to develop and maintain our operator ability and know-how. The FD rules are in the successful pattern of last year, when a power-multiplier level for 100 watts was revised to apply up to 150 watts in Rule 10. You can operate any consecutive 24 hours in the given 27-hour period -- see Rule 5.

The "FD" is the top operating activity of the year, both for club and individual participation, so none will wish to miss it. The rules are flexible to fit large-group or individual plans. See rule 4 for ENTRY CLASSES. We suggest that regardless of group plans all possible MOBILE UNITS available to a club or individually owned be TESTED. Check them out by at least one contact and message sent, in

FD! Clubs reporting their members' totals for an AGGREGATE MOBILE SCORE listing may well contribute directly to community readiness for disaster work.

Reporting forms on which to list FD contacts and make the necessary score computations are available upon request from ARRL Headquarters after May 12th. You may of course make up your own forms, but please be certain to include all the information required by the rules. The rules below are those that will appear in the June '58 QST Field Day announcement. We suggest that you review the Oct. '57 QST (p. 60) report on the last one (and the operating notes for Mar. '57 QST p. 58) for hints and kinks relative to Field Day. You may wish to note other groups near you with similar operating set-ups and to issue a challenge.

Clubs and local emergency corps groups, both AREC and RACES, are invited to support 1958 Field Day. "There's nothing like an ARRL Field Day." Start your preparations now!

RULES

1. **ELIGIBILITY:** The Field Day is open to all radio amateurs in the sections listed on page 6 of QST.

2. **OBJECT:** For portable and mobile stations to work as many stations as possible; for home stations to work as many portable and mobile stations as possible.

3. CONDITIONS OF ENTRY:

Each entrant agrees to be bound by the provisions of this announcement, the regulations of his licensing authority, and the decisions of the ARRL Contest Committee.

4. ENTRY CLASSIFICATION:

All entries will be classified according to the maximum number of transmitters at any one time in simultaneous operation. They will be further classified as follows: "A," club or group portable stations; "B," unit or individual portable stations; "C," mobile stations; "D," home stations operating from emergency power; "E," home stations operating from commercial power sources. (Example: A club or group running three transmitters simultaneously will be in the 3A classification, or a mobile station with one transmitter will be in the 1C classification.)

Portable stations are those installed temporarily, for FD purposes, at sites away from customary fixed-station locations. Portable equipment or units must be placed under one call and the control of one licensee, for one entry. All control locations for equipment operating under one call must lie within a 1000-foot diameter circle.

Group participation is that portable-station work which is accomplished by three or more licensed operators.

Unit or individual participation is that portable-station work accomplished by either one or two licensed operators.

Mobile stations are complete installations including power source and antenna, mounted in or on vehicles and capable of being used while in normal motion. If they utilize antenna supports not normal or suitable for use during motion, installations must be classified as portable instead of mobile. Each mobile entry call must be different from any other FD station participating.

Home-station participation is that work by fixed amateur stations not operating portable or mobile.

A transmitter used to contact one or more stations may not subsequently be used under more than one other station call during the Field Day period.

5. FIELD DAY PERIOD: The Field Day opens at 4:00

EST (or 1 P.M. PST) June 28. In the following 27-hr. period, operation can be for any consecutive 24 hours. Operation can start everywhere at 4 P.M., 5 P.M., 6 P.M. or 7 P.M. EST, for example, but contemplates 24 hours continuous work for the test, all work of all stations concluded at 7 P.M. EST or earlier, on June 29th. All contacts must be made during a 24-hour period.

6. BANDS: Each phone and c.w. band is regarded as a separate

band. The following (and additional u.h.f.-s.h.f. bands) constitute separate bands: A1: 1.800-1.825, 1.875-1.900 "east" or 1.900-1.925, 1.975-2.000 "west", 3.5-4.0, 7.0-7.3, 14.0-14.35, 21-21.45, 26.96-27.23, 28.0-29.7, 50-54 and 144-148 Mc. A2, radioteletype and frequency-shift keying are grouped with A1, in the bands where they are allowed. A3: 1.800-1.825, 1.875-1.900 "east" or 1.900-1.925, 1.975-2.000 "west", 3.8-4.0, 7.2-7.3, 14.2-14.3, 21.25-21.45, 26.96-27.23, 28.5-29.7, 50-54 and 144-148 Mc. All forms of voice transmission will be grouped with A3, in the bands where they are allowed. (In Canada and Cuba, their respective phone bands apply.) The use of more than one transmitter at one time in the same band is not allowed.

7. **EXCHANGES:** Signal reports and ARRL section (or specific location) must be exchanged in proof of contact.

8. **VALID CONTACTS:** In class A, B and C, a valid contact is a completed exchange with any amateur station. In Classes D and E, a valid contact is a completed exchange with any station in Class A, B or C. Cross-band contacts are not allowed. Contacts by mobile stations may be made in motion or from any location(s). A station may be worked more than once only if the additional contacts are made on different bands.

9. **FIELD DAY MESSAGE:** A Field Day Message is one originated by a Class A, B or C station and addressed to the SEC or SCM (see address in QST, p.6) stating the number of operators, the field location, and the number of AREC members at the Field Day station. Only one Field Day Message may be originated for credit.

10. **SCORING:** Points: Each valid contact counts 1 point. Credit for handling messages may be obtained only as follows: 25 points for originating one Field Day message to SEC or SCM. In addition, each Field Day Message received for relay will score 1 point when received by radio and 1 point when sent onward by radio. No FD message may pass through the same station twice. There will be a deduction of 10 points for omission of handling data or for defects in form. Copies of all messages originated and relayed must accompany Field Day reports.

Multipliers:

Power: Output-stage plate input under 30 watts, 3. Output-stage plate input over 30 and under 150 watts, 2. Output-stage plate input over 150 and to 1000 watts, 1.

Independence-of-Mains. All radio equipment independent of commercial power source: 3. All radio equipment not independent of commercial power: 1.

Battery Power (applies to Classes B and C only): 1.5. The battery capacity or size shall in all cases be adequate to permit one hour's continuous operation of the station. Charging batteries from commercial mains while batteries are connected to transmitter or receiver voids the "independence-of-main" and "battery power" multipliers. Multipliers do not apply to Class D and E entries.

Final Score. The final score equals the total "points" multiplied by the "power multiplier" multiplied by the "independence-of-mains" multiplier (multiplied by the "battery power" multiplier, if applicable). Where different multipliers apply during the Field Day period, points are multiplied by the multiplier in effect at the time the points were earned.

11. CLUB AGGREGATE-MOBILE SCORES: Entries under Class C may be combined to form a "Club Aggregate-Mobile Score." The club name must be noted on the individual reports, and the club secretary must submit a claimed aggregate score. Credits to the extent supported by the reports submitted to ARRL will be allowed. Only bona fide members of the club, residing in the club territory, may contribute to the aggregate-mobile club listing.

12. REPORTING: Mail reports or entries on or before July 26th. Reports must show bands used,

dates and contact times, *starting time and 24-hr. period*, calls of stations worked, signal reports received and sent, and ARRL sections or locations (stations worked). Reports must show also power inputs and sources of power, location of station, the maximum number of transmitters in simultaneous operation, number of persons participating, and score computations.

SAMPLE SCORE: Assume a station operating in Class B with independent power and less than 30 watts input. If 27 valid contacts are made, 1 FD message originated, and 2 FD messages received and relayed, the score would be computed as follows: $27 + 25 + 4 = 56$ points. 56×3 (power below 30 watts) $\times 3$ (independent power) = CLAIMED SCORE of 504. If the station were using battery power, the claimed score would be: $1.5 \times 504 = 756$. (No battery multiplier on club scores, of course.)

EXAMPLE OF OPERATING PERIOD: The above station W6---alerted its members to start June 28th (Sat.) at 1 P.M. PST; the generator team and antennas were not ready until 2:30 P.M. PST. As required in rule 12 that was shown as the Starting Time, the contacts (this same hour 2:30 P.M. PST June 29th being the basis for score. (N.B.: There was one hour of interruptions...these did not permit any extension of operating time.)

PROJECT #1

Progress Report

On Sunday, March 24th, the technical committee met at the qth of WØRMB, Cecil, for deliberation on final design of club project #1, the 6 meter transceiver. Present were WØCQX, WØJJK, WØWRT, WØUIO, WØRMB and WØNPA. Circuit designs were submitted, modified and approved so that construction of prototype #1 could be started. This will be the club rig upon which design the group transceivers will be based. It looks like a good layout and one which we hope will give us good performance per buck of expense. We hope it will not be long before the prototype is finished so the project can begin in earnest. One thing is certain, we can have a lot of fun with these units and what a natural they will be for emergency communications.

73,
--de Windy

K2SZD, Richard Bilon, at 5 Nugent Street, New Hyde Park, N.Y. offers a Q multiplier and antenna coupler for sale. We can't have model numbers, but assume Heath QF-1 and AC-1. Drop Dick a line if interested.

Joe Lofreddo of New York, one of our constant readers, will be sending in an order for a call letter tie as soon as he can round up the necessary green paper. We also received an order for a tie from Joe's friend, Dick Bilon, K2SZD. Joe also mentions he is operating 40 meters using a Globe Scout.

Orders for ties are now being processed. All orders received at the March meeting will be ready by the April meeting and all orders received at the April meeting will be ready by the May meeting. If you wish a tie with your call letters embroidered thereon, bring your \$1.50 to the next meeting.

We occasionally receive inquiries about joining the Ak-Sar-Ben Radio Club. We would like to extend an open invitation to anyone interested in amateur radio to attend one of our meetings and meet our members. Our regular meetings are held the second Friday of each month at Ak-Sar-Ben Field, 4-11 Building, at 8:00 P.M.

NEWS FROM THE HOME- STEADER RADIO CLUB AT BEATRICE, NEBR.

Warren Williams gave an interesting talk on the "History of Radio" at the last Club meeting. He displayed many articles. Some were 1926 QST, 2nd edition of the handbook, B-a catalog of 1935, Electro-Importing catalog of 1916 and many radio parts, spark gap transmitter parts, regenerator short-wave receiver with 201a tubes, which he had operating and many more coils, condensers, etc.

Louie, KØCBV handled Burlington traffic with Nate, WØNHT during the snow and sleet storm in Kansas and Nebraska when lines were down.

Walt, WØMOL is operating 10 and 15 with his DX-35. He's working on a mobile.

Armin, WØGBH is on 15 with his new Globe Champ.

Ken, KØKKJ is operating 75 and 40 since he got his Globe Scout. He also calls into the Ham Butchers Net on 40.

Dr. and his son Joe Moell are waiting for their novice tickets.

Louie, KØCBV and Lee, WØAQQ are active on the Air Force Mars Net.

Louie, KØCBV is an active member of the Nebr. 75 meter fone net.

Lee, WØAQQ has his RTT machine receiving and would like to test his transmitting equipment with someone on 80.

FOR SALE

Must sacrifice for cash. GLOBE KING 500-B, very latest version, same circuit as 500-C. 4-400A final tube, 10 hours use and like new. Save \$300.00. Call Alan McMillan, WØJJK, Papillion 4431 or write Box 465, Papillion, Nebraska.

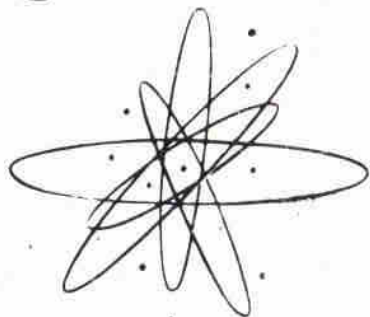
FOR SALE: Navy CAY-52239... less P.S. & modulator. 803 final, VFO, ant. tuner and RF metering. Covers 3-18 Mc. plate transformer 1500vdc @ 400 Ma. --\$60.00. Gene Olney, Omaha, AT 3877.

We note Leo, WØGFQ has a couple of new items that may interest many. A rig called the Hi-Bander VHF-62. It runs about 50 watts and is band-switching on 6 & 2 meters. A new 6 meter VFO matches the above rig on 6 or may be used on other 6 meter rigs. It is called the 666 VFO. A new 100 watt PEP, DSB -AM-CW rig will also be out soon.

April Program!

For our April 11th meeting we have an outstanding program. Dick McCann of Radio Station KBON will describe his observations of the atom bomb tests as well as show colored slides of these tests. He was one of thirteen newsmen in the country invited to participate in these observations. Those who have heard him talk have reported it to be a very interesting commentary and one which should not be missed.

In order to have adequate facilities for the slides, the meeting will be held in the Assembly Room at the World Insurance Company. Please



use the entrance at 211 South 18th Street. As this program will be interesting not only to Hams but others as well, please feel free to bring your friends, and XYL and the kids.

Meeting starts at 8:00 P.M. SHARP. For those of you who may wish to eat down town, the room will be open at 7:00.

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We still have a lot of QSL cards unclaimed and if you are expecting a card from a station worked that may not have been received, why not send a self-addressed stamped envelope to Box 626, Omaha. We are still

getting cards addressed in care of Ak-Sar-Ben Radio Club, Omaha, Nebraska, and many of you fellows had had your license too short a time to have a listing in the Call Book and we cannot deliver the cards to you.

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AK-SA²-BEN RADIO CLUB INC.
P. O. BOX 626
OMAHA, NEBRASKA

Notice!



NEXT MEETING
ASSEMBLY ROOM
WORLD INSURANCE BLDG.
211 SO. 18TH STREET
APRIL 11, 1958
8:00 P. M. - SHARP

BULK RATE
U. S. POSTAGE
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